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by

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Nitidulidae (Coleoptera) of the Himalayas and northern Indochina

Part 1: Subfamily Epuraeinae*)

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Abstract

The present volume is the first part of a series dealing with the Coleoptera family Nitidulidae from the Himalayas, from southern Tibet and subtropical China as well as from the northern part of Indochina. Thousands of specimens from about 30 institutions have been studied, both classical old material as well as newly collected material. New taxa (tribes, genera and species) are proposed, new synonymies and new combinations are created. For each species a detailed diagnosis, data to synonymy, bionomy and distribution are given. More than 700 figures, mostly originals, are presented. Identification keys are provided for the subfamilies, tribes, genera, subgenera and species from the treated region. The general morphology of the family (imagines, larvae and pupae) is summarized and some remarks to higher classification are added.

Contents

Introduction

The Himalayas and Indochina were always attractive regions for collectors of insects in spite of difficulties of field work. The first species of the Nitidulidae from that region was described by Fabricius (1801). Many nitidulid forms collected from there and adjacent territories were largely studied in the middle and second half of the last century and in the first decade of the current one by Erichson (1842, 1843, 1844), Nietner (1856), Motschulsky (1858, 1859, 1963),Walker (1858, 1859), Murray (1864), Reitter (1873, 1875, 1980a, 1880b, 1880c), Grouvelle (1890a, 1890b, 1891, 1892a, 1892b, 1894, 1895, 1897, 1898, 1902, 1903a, 1906a, 1906d, 1907, 1908, 1910, 1912/1913, 1914b) and Fairmaire (1891). Later, during a long period, only very few publications on the Himalayan and Indochinese fauna concerning the Nitidulidae exist (Champion, 1923, Plaviltshtshikov, 1935 and Bollow, 1941). However, during the last decades some papers devoted to the Himalayan and Indochinese nitidulid fauna have been published by some authors (Easton, 1968; Endrödy-Younga, 1971; Jelinek, 1975, 1978, 1984, 1995; Chûjô, Hisamatsu, 1964, Hisamatsu, 1982; Kirejtshuk, 1979a, 1980; 1984a, 1985, 1986a, 1987b; 1987c, 1987d, 1994a, 1994b, 1997a, 1997b; Kirejtshuk, Kirk-Spriggs, 1996 and some others).

A character of that region is its huge diversity of ecological conditions given a chance for different biocommunities to exist on comparatively restricted areas. Tropical rainforests at the bottoms of deep valleys, temperate forests on slopes to alpine meadows on mountains with high altitudes, and, on the other hand, slopes of hills and mountains with different expositions allow the distribution of elements preferring humidity (many nitidulids) and some Middle Asian components adapted to a more arid climate (for example, *Meligethes (Meligethes) vulpes* Solsky, 1876).

For more than ten years, I have been working with the Indochinese fauna due to the available specimens collected largely in Vietnam [mainly by O.N. Kabakov, colleagues from the Zoological Institute of the Russian Academy of Sciences (S.A. Belokobylsky, A.V. Gorokhov, E.S.

Sugonyaev, A.V.Tryapitzin) and Gy. Topál (Budapest)], Myanmar (Burma) [from R. Malaise (Stockholm)], Thailand (by entomologists from Copenhagen's University and some others). I had also a chance to identify the specimens from the expeditions of G.N. Potanin and A.V. Potanina, A. Modigliani, H. Fruhstorfer and other coleopterists of the last century from China and many localities of the Indo-Malayan region, deposited in different collections and which remained unnamed till this study. A few years ago I got the opportunity to study some additional material among which the Nitidulidae collected by J. Martens and W. Schawaller from the Nepal Himalayas were especially abundant in new data and a valuable contribution to the knowledge of that region. Also, the specimens collected by G. Scherer and A. Riedel in mountain regions of northern India as well as those collected by M.J.D. Brendell, I. Löbl, A. Smetana, by expeditions of the Natural History Museum in Basel (mainly by M. Brancucci) and by the Canadian Nepal Expedition of the Biosystematics Research Institute (Ottawa) in Nepal and Bhutan presented also substantial contributions for this work. Moreover, some hundreds of specimens brought by many professionals and amateurs from the Himalayas, Indochina and adjacent territories and deposited in different collections were studied as well. The last portion of the studied specimens from the Himalayas and adjacent territories was received from the Natural History Museum in London (BMNH) mostly including specimens from the H.G. Champion's collection.

Unfortunately, different districts of the Himalayas and Indochina have been investigated to a variable extent and in general insufficiently. Most specimens have been as yet originated from some districts of Nepal and India (Darjeeling) on slopes of the rivers Ganga and Brahmaputra. Other regions in the Himalayas have been visited by collectors of beetles to a lesser extent. The northern Indochinese fauna is mostly represented by specimens from few localities in Thailand and North Vietnam. Assam, Bhutan, Myanmar (Burma) are less studied in their coleopterological aspect, although the fauna of these regions are somewhat represented in comparison with other districts yet more poorly studied (west and Chinese parts of the Himalayas). Finally, the Nitidulidae from Pakistan, Bangladesh, Laos and Cambodia (Campuchea) are almost inaccessible for study.

Nevertheless, it is supposed that the studied specimens represent the majority of species which can be expected on the territory under consideration: western part of Tibet, northern India in a broad sense, Pakistan, Nepal, Bangladesh, Bhutan, northern Myanmar (Burma), Thailand, Laos, Cambodia and North Vietnam. The data in this monograph show a close connection between the Himalayan and Indochinese faunas of the Nitidulidae.

As a result, the study of some thousands of specimens gives a base to prepare this monograph, which should be a next step after the Grouvelle's monograph on the Indian Nitidulidae (Grouvelle, 1908) but with a somewhat different area. In contrast to Grouvelle's publication, the text of this work includes some new species not only from the Himalayas and northern part of Indochina, but also from southern Tibet and subtropical China. Only a few new species are herein described from central and southern India or southern Indochina [belonging to groups with comparatively wide distributional areas, such as genus *Raspinotus* Kirejtshuk, 1990a and subgenus *Carpophilus (Myothorax)* Murray, 1864]. Another exception was made for 4 newly described species of *Taeniolinus* new genus (3 from Malacca and 1 from Bornean Malaysia). Specimens of this genus are very rare in collections and future findings on the considered territory seem to be quite likely. Similarly, I include *Taraphia* Audisio et Jelinek, 1993 known as far north as Perak. A particular exception has been made for *Epuraea (Haptoncus) maehleri* new name from the Polynesian islands in order to give its true taxonomic definition.

The recent Himalayan and northern Indochinese faunas have originated from different faunistic elements. According to accepted zoogeographic tradition, the Himalayas are included in the Chinese-Himalayan subregion of the Palaearctic region, although often the territory south of the Himalayan ridges is regarded as a part of the Indo-Malayan region. However, the real character of the Himalayan Nitidulidae can not be easily interpreted as part of the Palaearctic fauna. In general the Himalayan fauna of this family has clearer connections with those of the East Chinese (Palaearchearctic) province (as an East Palaearctic territory with better studied fauna than from other Chinese areas) of the

Palaearctic region on the one hand, and the Indochinese region, on the other (forming the Himalayan-Burmanian-Yunnanian faunistic block), but less close connections are evident between this fauna and that of the true Indian province of the Indo-Malayan region. At the same time some autochtonous elements can be traced in the fauna of this territory. A pattern of interconnections with adjacent territories can be only shown and analyzed after a detailed study of the distribution of different faunistic components and their relatives in other geographical regions. Unfortunately, the connections of many of these components remain preliminary and not so clearly defined, and it needs some additional research to clear them up. An analysis of the possible bionomy of the family groups will be done in the last part of this monograph.

Names of some species are omitted in the general list of this work because they are known to the author only by original description, and therefore he has no opinion on their taxonomical position or has some doubts about their validity: „*Epuraea brunnea*" Wiedemann, 1825; „*Carpophilus (Carpophilus) cribratus*" Murray, 1864; „*Meligethes ferrugineus*" Reitter, 1872/1873; „*Macroura meligethoides*" Reitter, 1873, „*Haptoncus prolatus*" Grouvelle, 1897, „*Trimenus piceus*" Grouvelle, 1897. Such names and „*Lordyrodes dentipes*" Jelinek, 1978 are put in the list of the species, but it is necessary to check the type series. Most of the types of *Haptoncus* species described by L.R. Gillogly (1962, 1982) also need to be retested in order to clarify their generic and subgeneric position (or synonymy). Many of them have been seen by the author and some remarks on these „*Haptoncus*" are included. Unfortunately, in some cases the author was obliged to use a questionable name because of the obscurity of the proposed names, namely *Epuraea (Haptoncurina)* aff. *gestroi* for specimens having a general apperance as *E. (H.) gestroi* (Grouvelle, 1906a), but possessing an aedeagus as *E. (H.) motschulskyi* Reitter, 1873.

Depositories

ANIC	Australian National Insect Collection, C.S.I.R.O., Division of Entomology, Canberra;
BMNH	Natural History Museum [formerly British Museum (Natural History)], London;
BPBM	B.P. Bishop Museum (The State Museum of Natural and Cultural History), Honolulu;
CMNO	Canadian Museum of Nature, Ottawa;
CNC	Canadian National Collections (Biosystematics Research Institute), Ottawa;
DEI	Deutsches Entomologische Institut, Eberswalde-Finow;
FMNH	Field Museum of Natural History, Chicago;
IRSN	Institut Royal des Sciences naturelles, Bruxelles;
MSNG	Museo Civico di Storia Naturale, Genova;
MAK	Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn;
MHNG	Muséum d'Histoire Naturelle, Genève;
MMUE	Entomology Department, Museum at Manchester University;
MNHN	Muséum National d'Histoire Naturelle, Paris;
MRAC	Musée Royal de l'Afrique Centrale, Tervuren;
NMC	National Museum of Wales, Cardiff;
NMB	Naturhistorisches Museum, Basel;
NMP	Národní Muzeum v Praze;
NMW	Naturhistorisches Museum, Wien;
NRS	Naturhistoriska Riksmuseet, Stockholm;
ROM	Royal Ontario Museum, Toronto;
RMNH	Rijkmuseum van Natuurlijke Historie, Leiden;
SMF	Natur-Museum Senckenberg, Frankfurt am Main;
SMNS	Staatliches Museum für Naturkunde, Stuttgart;
TMB	Természettudományj Múzeum, Budapest;
URC	Collection at the Universitá di Roma;
USNM	U.S. National Museum of Natural History, Washington;
ZISP	Zoological Institute of the Russian Academy of Sciences, St. Petersburg;

ZMB Museum für Naturkunde an der Humboldt-Universität, Berlin;
ZML Zoological Museum at Lund University;
ZMMU Zoological Museum at Moscow University;
ZMUC Zoologisk Museum at Copenhagen University;
ZSI Zoological Survey of India, Calcutta;
ZSM Zoologische Staatssammlung, München.

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GENERAL MORPHOLOGY OF THE FAMILY

I m a g o: Body very diverse, from 0.9 up to 15.0 mm in length; frequently moderately convex dorsally and somewhat flattened or weakly convex ventrally, sometimes strongly convex dorsally and flattened ventrally, or subhemispheric and able to roll up in a ball (exclusively Cybocephalinae); usually of oval or somewhat elongate outline from above. Surface usually with uniform punctation, but sometimes with punctures of different sizes arranged in not quite regular rows, but elytra not infrequently more or less striate and with longitudinal rows of larger or smaller punctures. Pubescence usually moderately dense, fine, unicoloured and moderately conspicuous, although sometimes it is completely reduced or consists of groups of different sizes, shape and coloration, and not infrequently pronotal and elytral sides more or less ciliate. Head partly retracted into prothoracic segment, more or less prognathous; labrum usually bilobed, sometimes fused with inner surface of frons (exclusively Cryptarchinae); mandibles with acute apices, usu-

ally with well developed mola and prosteca; maxillae unilobed with normally raised palpi; labium with 3-segmented palpi. Antennae usually 11-segmented, with 3 or 4 segmented compact club, clearly dorsoventrally depressed, sometimes they consist of 10 or less segments and their club is reduced up to 2 segments, or includes one or more additional segments - up to 5-8 segments (completely comprising a compact or partly loosed club); however, species of the genus *Calonecrus* J. Thomson, 1857 have 10-segmented antennae with 1-segmented and undepressed club. Pronotum and elytra with sides almost always distinctly bordered and usually more or less explanate. Elytra rarely complete, but usually more or less shortened, with clearly separated epipleura sharply turned ventrally and becoming obsolete towards their apices (especially in the forms with more shortened elytra); elytral epipleura in *Calonecrus* species having no lateral fold at curvature from dorsal side. Fore coxae strongly transverse and with a well exposed trochantin, separated by a moderately developed prosternal process; their cavities not completely or completely closed. Mesosternum, as a rule, somewhat deepened (excavate) in comparison with a remainder of underside and frequently with a medial carina swollen in the middle; mid coxae transverse with an exposed trochantin and their cavities open externally. Metasternum transverse or subquadrate, usually with a more or less distinct medial suture and a trace of paracoxal sutures, caudal marginal line behind mid coxae deviated from hind edge of cavities forming an „axillar space", and in some cases there is also an intercoxal line in fore part of metasternum; hind coxal cavities strongly transverse, moderately separated each from other, or closer together, but never contiguous. Tergite VIII transformed into an anal sclerite, heavily sclerotized, well raised and large in males and reduced and usually submembranous in females, forming together with the remains of 9th sternite („ventral plate") and „*spiculum gastrale*" in males or „*spiculum ventrale*" in females, a genital capsula. Forms with complete elytra have small oval and uniform spiracles, usually between tergites and laterosternites of 1-6 segments; most forms with shortened elytra have largest spiracles on segments before elytral apices (not infrequently very transverse and located on tergites), spiracles on uncovered segments are rather or extremelly small and sometimes elongate. Venation of hind wing reduced; radial and anal cells, as well as subcubital fleck

absent; medial vein sometimes absent and there are never more than three anal veins. Tibiae more or less flattened, fore usually with a crenulate outer edge, mid and hind ones with two borders, or rarely one border, bearing a row of setae or spinae. Femora with excavations for reception of base of tibiae. Tarsi 5-5-5, or rarely 4-4-4 (exclusively in Cybocephalinae), tarsomeres 1-3 bilobed or more rarely simple, tarsomere 4 (if present) smallest, a bisetose empodium developed between the claws (not always visible with usual optics). In the male genitalia, the tegmen consists of two lobes with a deep medial excision, and the penis trunk is more or less membranous and not quite dorsoventrally compressed (Carpophlin-lineage: Epuraeinae, Carpophilinae, Amphicrossinae, Calonecrinae); or the tegmen consists of a single plate, with or without a short apical excision, and the penis trunk is usually heavily sclerotized and dorsoventrally compressed (Nitidulinae, Meligethinae, Cillaeinae, Cryptarchinae, Cybocephalinae).

L a r v a: Body elongate, subcylindrical or somewhat dorsoventrally compressed, slightly sclerotized, except hard sclerotized epicranium with appendages, legs, pronotal plate and small places on other tergites. Dorsum even or frequently with tubercles, processes, protuberances or prominences of different configuration, sometimes more or less sclerotized. XIth abdominal tergite with pregomphi and urogomphi (especially raised in the forms inhabiting enclosed substrates and reduced in free-living ones), lacking in Cybocephalinae. Head with frons fused with clypeus but usually with raised frontoclypeal suture, 2-4 stemmata on each side (if visible) and lack of endocarina; hypostomal roads absent, but hypostomal ridges strongly convergent posteriorly (except for Cybocephalinae with divergent ones); labroclypeal epipharynx furnished with a medial ridge and many small stripes, lacking in some anthophagous Epuraeinae, Meligethinae and Cybocephalinae; mandibles with raised mola and prosteca; maxillae with a mala (fused lacinia and galea) bearing a well developed membraneous or more or less sclerotized appendix and 3-joined palpus, cardines distinct; labial palpi 1-segmented; hypopharynx with a sclerome and bracons (except Cybocephalinae). Spiracles biforous and disposed on top of spiracular tube (if raised), abdominal ones situated dorsolaterally or rarely under lateral extensions of each segment (most Cybocephalinae have annular

spiracles with 2 lateral air tubes). Legs rather short with sparse, fine, short and pointed setae, tarsungulus of free-living larvae sometimes with a subapical sensilar vesicle or capitate seta (Meligethinae; Nitidulinae, Mystropini and Cybocephalinae).

P u p a: General shape more variable in comparison with that in larva, correlating with shape of imago. Head opisthognathous, completely covered with anterior part of pronotum and with few supraorbital tubercles bearing a fine long and pointed seta; frons usually with a separated and inflated clypeus. Pronotum along its fore edge has a pair or 2-3 pairs of small and sharp tubercles with one long and pointed seta situated apically, subapically and basally, but in some cases tubercles reduced or disloged by comparatively long setae. Mesonotum, elytra and metanotum usually glabrous; medial part of hind edge of meso- and metanotum arcuately or angularly projecting. Hind femora and not infrequently mid ones with 1-3 subapical setae. Each abdominal tergites glabrous or often tergites I-IV with a paramedial pair of tubercles, but each laterosternite (of I-VIII) with 1-2 pairs of setose tubercles or setae between spiracles and lateral edge (one of them usually at each spiracle). 8th and 9th abdominal segments partly retracted, but caudal apex with a pair of long urogomphi (even in species with larvae lacking urogomphi at all - Meligethinae and Cybocephalinae).

Diagnosis and systematic position

The Nitidulidae are traditionally regarded together with Brachypteridae (=Kateretidae) and Smicripidae either as members of the same family or as families of related groups. A comprehensive synopsis of structural characteristics of these groups can be found in reviews by Crowson (1955), Lawrence (1982, 1991), Kirejtshuk (1992) and Audisio (1993).

The developed ventral plate fused or articulated with *spiculum gastrale* (anterior strut) in males and *spiculum ventrale* in females is a rather important structure. These sternal rudiments together with the anal sclerite (derivative of tergite VIII or partly laterosternites VIII) form the genital capsule, very characteristic in these families (Nitidulidae, Brachypteridae, Smicripidae). These families also have a tendency to reduce the imaginal galea (as in Rhizophagidae, while many Polyphaga - like Boganiidae, Chrysomeloidea, Curculionoidea - more frequently show a tendendy to reduction of the lacinia); lack of functioning spiracles on 7th abdominal segment in imago; lack of lateral expansions (plates) of imaginal metendosternite (usual for archaic Cucujoidea, but also Cleroidea, Lymexyloidea, Tenebrionoidea, Chrysomeloidea and Curculionoidea); articulating maxillary mala (?=galea) with sclerotized appendix (?=lacinia) in larvae (as in many cases among Boganiiae, Helotidae, some Cleroidea, Chrysomeloidea and Curculionoidea, but sometimes in Lyctidae, Ptinidae, Peltidae, Lymexylidae, Endomychidae); 1-segmented labial palpi in larvae (occurs also among Lyctidae, Anobiidae and some Rhizophagidae); larval epicranium with not more than 4 (usually 2 or 4) stemmata on each side (although this feature is also not unique among larvae of Polyphaga). Aedeagi of Nitidulidae can be Carpophiline or Nitiduline types, but always symmetrical, with fused tegmen (without „parameres") and dorsoventrally compressed penis trunk, while that of Brachypteridae and Smicripidae is asymmetrical and with „phallobase" and articulated „parameres" secondarily segmented. Larvae of representatives of Brachypteridae and Smicripidae are without distinct prostheca on their mandibles. In contrast to the family under consideration, the Brachypteridae are additionally characterized **in imagines**: by long narrow galea, reduced fold between elytral surface and epipleura (as only in *Calonecrus* species within Nitidulidae), large 6th abdominal segment and the next segment partly retracted, spiracles on 1-6 abdominal segments of usual oval configuration and penis trunk well sclerotized and laterally depressed; **in larvae**: by head with developed endocarina; divergent hypostomal ridges; developed hypostomal rods and oval pronotum without sclerotized areas. The Smicripidae - **in imagines**: by well raised frontoclypeal suture, 2-segmented labial palpi, notosternal sutures rather distinct and last abdominal segment very long; **in larvae**: by parallel hypostomal rods (as in Laemophlaeidae) and without distinct cardines (as in Phalacridae and Cucujidae-Laemophlaeidae).

The name Nitiduloidea proposed by Hieke (1989) is sometimes used in order to separate Nitidulidae together with Brachypteridae and Smicri-

pidae from other groups of Cucujoidea (Audisio, 1993; Crowson, 1995). However, the families united in the Nitiduloidea sensu latter authors lack clear evidence of a closer common ancestor in comparison with other families of Cucujoidea sensu Lawrence and Newton, 1982 (see also Lawrence and Newton, 1995). All the characters used for this uniting (see above) are more or less due to structural simplification and could be developed without a close relationship, although these characters can be treated as forming a taxonomic syndrome.

Keeping up the tradition mentioned above, the Nitidulidae were regarded as one of the oldest and most primitive group bearing many archaic characters from an ancestor of the infraorder Cucujiformia (Crowson, 1955, 1981, 1990; Lawrence, 1982 and others). Nevertheless, there is some evidence (from palaeontological, morphological, ecological and bionomic data) for an alternative interpretation (Kirejtshuk, 1994a, 1996b, see also below). The simpler appearance of some Epuraeinae, Carpophilinae, Meligethinae and others in contrast to the opinion of Crowson (1988) is connected rather with a faster ontogenetic development than with the archaic character of their structures. It can be recognized that the following characters seem to have been inherited from ancestral forms of the group under consideration:

I m a g o: Oval body slightly convex dorsally and ventrally with sculpture, punctation and pubescence somewhat like those in *Soronia* Erichson, 1843, *Ericmodes* Reitter, 1877/1878, *Lophocateretes* Olliff, 1883, *Zimioma* des Gozis, 1886, *Ostoma* Laicharting, 1781 and *Thymalus* Latreille, 1802; prognathous head with bilobed free labrum, raised mandibular mola and prostheca, unilobed maxilla; widely explanate pronotal and elytral sides; elytra complete, with wide and complete epipleura; fore coxae widely separated by comparatively wide prosternal process, which is far projecting as a fold on mesosternal surface; metasternum with well raised medial and paracoxal sutures; metacoxae transverse, but not medially inclined as those in Cleroidea (including probable Peltoidea); all trochanters of the cucujoid (normal) or nearly tenebrionoid („heteromeran") types; fore tibia with crenulate outer edge, but mid and hind tibiae with 2 borders bearing setae along outer edge; apices of all tibiae with a pair of spurs; tarsi with tarsomeres 1-3 lobed

and tarsomere 5 longest and ending with distinctly bisetose empodium between claws; anal sclerite completely retracted into 8th abdominal segment in both sexes; ventral plate in males divided into 2 parts joined by *spiculum gastrale*; slightly sclerotized tegmen considerably surrounding the slightly sclerotized and dorsoventrally compressed penis trunk (as in *Axyra* Erichson, 1843, *Megauchenia* Macleay, 1825, *Prometopia* Erichson, 1843, *Platychora* Erichson, 1843 and so on); fork-sclerite articulated with tegmen; penis trunk with unpaired apodema at base and paired lobes closing subapical orifice.

L a r v a: Body elongate, slightly sclerotized, except for hard sclerotized epicranium with appendages, pronotal plate and small areas on other tergites; head with frons fused with clypeus; labroclypeal epipharynx furnished with a medial ridge and many small strips; mandibles with raised mola and prostheca; maxillae with a mala and 3-joined palpi; labial palpi 1-segmented; hypopharynx with a sclerome and bracons; spiracles disposed on top of spiracular tube.

TAXONOMIC COMPOSITION

The family has at least 3000 published names for presumably valid species ranged into 271 genera and subgenera, although the expected number of species in the recent fauna of this group should be estimated at over 7000-8000, including not less than 2000 from the Indo-Malayan and 500 from the Palaearctic regions. The family is supposed to consist of 9 subfamilies united in 2 lineages represented by groups probably with a common phylogenetic ancestry. Some of the subfamilies are divided into tribes, and the latter correspondingly into complexes of genera. Almost all groups with a rank of subfamily and tribe are represented in the treated region (except Cychramptodini Kirejtshuk, Lawrence, 1992 and Lawrencerosini Kirejtshuk, 1990c - from the Nitidulinae, endemic for the Australian region; Arhinini Kirejtshuk, 1987b - from Cryptarchinae, endemic for Afrotropical region; and Mystropini Murray, 1864 - from Nitidulinae, endemic for Neotropical region), although Calonecrinae are as yet known only from the southern part of

Indochina southwards. A more detailed explanation of the composition of the family and the historic development of the lineages and subfamilies are given in Kirejtshuk, 1994a (and also in Kirejtshuk, 1982, 1986c, 1992; notes on suprageneric taxa and respective references: Pakaluk, Ślipiński, Lawrence, 1994; Lawrence, Newton, 1995). The following group designations with a taxonomic fixation as subfamily or tribe will be used in the present monograph (number of genera and subgenera represented on the territory under consideration given in parentheses):

CARPOPHILIN-lineage:
1. Epuraeinae Kirejtshuk, 1986c: 27 [Epuraeini (- 11) and Taenioncini new tribe (- 4)];
2. Carpophilinae Erichson, 1842: 148 (- 10);
3. Amphicrossinae Kirejtshuk, 1986c: 28 (- 1);
4. Calonecrinae Kirejtshuk, 1982: 117 (- 1);

NITIDULIN-lineage:
5. Nitidulinae Latreile, 1802: 132 [Nitidulini (- 29), Strongylini Sturm, 1844: 7 (- 8), Cychramini Lacordaire, 1854/1855: 318 (- 2)];
6. Meligethinae C.G. Thomson, 1859: 67 (- 7);
7. Cillaeinae Kirejtshuk and Audisio in Kirejtshuk, 1986d: 219 (- 4);
8. Cryptarchinae C.G. Thomson, 1859: 69 [Cryptarchini (- 3), Platyarchini new tribe (- 1), Eucalosphaerini Kirejtshuk, 1987b: 63, 80 (- 1)];
9. Cybocephalinae Jacquelin du Val, 1858 (- 2).

Bionomy

The Nitidulidae consist of groups which are rather diverse not only in structure but also in their ecology, trophics and mode of life. Diversity of mode of life in different groups is less developed on territories with temperate climate and high mountain elevation but becomes extremely

wide in regions with subtropical and tropical climates. Such regularity will be analyzed in detail in the last part of this monograph.

Nevertheless it should be here emphasized that the most groups of the family have close connections with woody ecosystems adhering to trees and bushes. In particular it can be observed in peculiarities of the Nitidulid fauna revealed on the territory under consideration. The subfamilies Epuraeinae, Amphicrossinae, Calonecrinae and Cryptarchinae are specific forest groups, while only most Carpophilinae, Nitidulinae and Cillaeinae live in forests of different types and are connected with fungi developing on tissues of trees and bushes, oozing tree sap and substrates like that. Frequently species of *Pocadius* Erichson, 1843; *Thalycra* Erichson, 1843; *Quadrifrons* Blatchley, 1916; *Thalycrodes* Blackburn, 1891 from Nitidulinae connected with subterraneous fungi live also in forest. Even the groups inhabiting on flowers or fruits often occur on live or dead trees and bushes (tribe Mystropini and others). The parazitoid Cybocephalinae and Cychramptodini from Nitidulinae are mostly represented in ecosystems with trees and bushes where colonies of coccids and white flies exist. Finally, many forms breed on herbaceous plants prefer to exist within forest communities (subfamily Meligethinae and others). However, necrophagous species of *Nitidula* Fabricius, 1775 and *Omosita* Erichson, 1843 sensu lato usually are more common beyond forests. And only few genera can be regarded as groups characteristic for open grass ecosystems (such as many desert and steppe groups of the genus *Meligethes* Stephens, 1832, sensu lato from Meligethinae and cactivorous species of the genus *Camptodes* Erichson, 1843 from Nitidulinae].

Most Nitidulidae are more regularly collected in conditions of temperate and subtropical climate in the North Hemisphere (including usually in mountain forest of the territory under consideration) during middle and late spring or very early summer (March-June). However, in the mentioned circumstances, some of species are more frequent rather within or at autumn, but the groups with both types of activity have, as a rule, intervals in occurance during summer and/or winter. Another pattern of activity can meet in tropical rainforest or under conditions without sharply expressed differences in seasons, although at the pre-

sent it is impossible to trace more or less regular types of this pattern to do any grouping of different faunistic components. Lowland rainforest is inhabited by some Nitidulid forms showing imaginal activity the year round, usually these forms are associated with such habits as under bark of trees, flowers and soft fruits.

The most ancient habits or those similar to them appear to be among the fungivorous unspecialized forms from the different groups of both Nitidulidae and the infraorder Cucujioformia in general (Peltidae, Lophocateridae, Phloiophilidae from superfamily Cleroidea; Derodontidae and Nosodendridae from superfamily Dermestoidea; many families from superfamilies of Cucujoidea and Tenebrionoidea). In particular an archaic mode of life is probably characterized by the nitidulid species, inhabiting exuding tree sap in the genus *Epuraea* sensu lato (Epuraeinae); most Amphicrossinae; Calonecrinae; genus *Soronia* (Nitidulinae) and subgenus *Glischrochilus* (*Librador*) Reitter, 1884 (Cryptarchinae). These features appear also to be attributed to many representatives of different subgenera of the genus *Epuraea* sensu lato (subgenera *Epuraea* sensu stricto; *Epuraeanella*; *Aphenolia* Reitter, 1884; *Africaraea* Kirejtshuk, 1989a; *Amedanyraea* Kirejtshuk et Pakaluk, 1996) from Epuraeinae; many or all representatives of subgenera *Carpophilus* (*Carpophilus*) Erichson, 1843 and *C. (Ecnomorphus)* Motschulsky, 1858 from Carpophilinae; as well as to most Strongylini (except for species of *Camptodes*) from Nitidulinae and most Cryptarchini from Cryptarchinae. Many mycetophagous forms from Nitidulini and Cillaeinae maintain to a greater or lesser extent some elements of an archaic mode of life and appropriate habits. It is particularly true for many arboricolous nitidulins from genera *Prometopia*; *Parametopia* Reitter, 1884; *Lobiopa* Erichson, 1843; *Axyra*; *Megauchenia*; *Ipidia* Erichson, 1843; *Platychora*; *Taracta* Murray, 1867; *Psilotus* Fischer, 1829; *Perilopa* Erichson, 1843; *Gaulodes* Erichson, 1843; *Ussuriphia* Kirejtshuk, 1992; as well as some representatives of genera *Pocadites* Reitter, 1884; *Hebasculinus* Kirejtshuk, 1992; *Atarphia* Reitter, 1884 and subgenera of *Aethina* (*Aethina*) Erichson, 1843 sensu stricto; *A. (Circopes)* Reitter, 1873 and *Lordites (Phenolia)* Erichson, 1843 from Nitidulini; and probably species of the genera *Ecnomaeus* Erichson, 1843; *Cillaeus* Castelneau, 1835; *Cillaeopsis* Grouvelle, 1899; *Platynema* Ritsema, 1885; *Ithyphenes* Murray, 1864; and at least part of members of genera *Colopterus* Erichson, 1842; *Brachypeplus* Erichson, 1842; *Conotelus* Erichson, 1843 from Cillaeinae. To a lesser extent it is true for the forms completely or partly attached to litter and decomposing substrates near or in the soil and sometimes to decaying fruits and seeds, such as representatives of *Urophorus* (*Urophorus*) Murray, 1864 sensu stricto; *U.* (*Anophorus*) Kirejtshuk, 1990b; *Stelidota* Erichson, 1843; *Pocadius*; *Lordites* (*Lordites*) sensu stricto; *L.* (*Aethinodes*) Blackburn, 1891 and *L.* (*Plesiothina*) Kirejtshuk, 1990a; *Thalycra*; *Quadrifrons*; *Thalycrodes*; and, perhaps, some *Physoronia* Reitter, 1884 from Nitidulini.

Most fungivorous Nitidulidae are recorded as breeding in fermenting substrates with yeasts and might well serve as vectors of the yeasts. However, many representatives of different subfamilies prefer or are connected with basydiomycete fruiting bodies [such as some *Epuraea* (*Epuraea*) sensu stricto; *E.* (*Aphenolia*); *E.* (*Epuraeanella*); *Lordites* (*Phenolia*); *Pocadius*; *Pocadites*; *Thalycra*; *Cyllodes*; *Pallodes* Erichson, 1843; *Neopallodes*; *Tricanus* Erichson, 1843; *Oxycnemus* Erichson, 1843]. Some *Epuraea* (*Haptoncus*), *Carpophilus* sensu lato, *Colopterus*, *Glischrochilus* sensu lato and others are involved in transmission of *Ceratocystis* (Ascomycetes) or *Fusarium* (Hyphomycetes).

It is possible to trace some different and regular of changes in ecology, trophics and mode of life, and appropriate transformations of structure (Kirejtshuk, 1989b, 1996b). The most expressive correlation between ecological, bionomical and structural traits is in the groups which independently became anthophagous and using pollen as a main food resource (Epuraeinae, Carpophilinae, Nitidulini, Strongilini, Cychramini, Cillaeinae, all Mystropini and Meligethinae - Kirejtshuk, 1994a, 1996a). Frequently, inflorescence gives an intermediate inhabitation for the forms with a tendency to phytophagy [as that among some recent representatives of *Epuraea* (*Micruria*) Reitter, 1875a (Hayashi, 1978); *E.* (*Haptoncurina*) and *Parepuraea* Jelínek, 1977 (considered below and Kirejtshuk, unpublished) from Epuraeinae; different subgenera of *Carpophilus* (Connell, 1956) from Carpophilinae; *Neopocadius* Grouvelle, 1906c (Bruch, 1923) and *Camptodes* from Nitidulinae;

and some *Brachypeplus* sensu lato (Kirejtshuk, 1994a, 1996a) from Cillaeinae, although other relatives of the mentioned groups yet became completely anthophagous]. Many nitidulids, having overcome this stage of ecological change and become completely anthophagous at both larval and imaginal instars, remain at this stage of regular ecological change until now [*Propetes* sensu lato and *Epuraea (Apria)* Grouvelle, 1919 (Jelinek, 1992) from Epuraeinae; subgenera *Carpophilus (Caplothorax)* Kirejtshuk, 1997a and *C. (Plapennipolus)* Kirejtshuk, 1997a; as well as subgenus *Urocarpolus* Kirejtshuk, 1997a of genus *Nitops* Murray, 1864 from Carpophilinae; all Meligethinae; subgenera *Aethina (Ithyra)* Reitter, 1873; *A. (Olliffura)* Jelinek and Kirejtshuk in Kirejtshuk, 1986a; *A.* (new subgenus Kirejtshuk and Lawrence, in press) from Nitidulini (Nitidulinae); probably, all Mystropini (Nitidulinae) and *Macrostola* from Cillaeinae]. The next stage in the mentioned regularity of changes in mode of life and trophics is a transition from anthophagy to carpophagy (Epuraeinae and Carpophilinae) or complete phyllophagy (*Anister* Grouvelle, 1901; *Xenostrongylus* Wollaston, 1854; *Strongyllodes* Kirejtshuk, 1992 from Cychramini, Nitidulinae).

Species of *Nitidula* Fabricius, 1775 and *Omosita* Erichson, 1843 sensu lato are associated with fungi growing on carcasses of vertebrates and became rather usual inhabitants of places with garbage, agricultural and industrial refuse with remains of animals. Few species of *Epuraea (Epuraea)* sensu stricto are accustomed to live in conditions of deserts and other arid territories finding fungi to eat under faeces of mammals or in burrows of rodents. Some mycetophagous *Amphicrossus* and *Amphotis* frequently have symbiotic relations with ants (African *Amphicrossus parallelus* Grouvelle, 1912 described in genus *Nitidopecten* Reichensperger, 1913; and european species of *Amphotis* often occur in nests of *Lasius* Fabricius, 1805 - Hymenoptera, Formicidae). However, development of *Amphotis marginata* (Fabricius, 1781) is also recorded in galls with *Biorhiza pallida* (Olivier, 1791) (Hymenoptera, Cynipidae) (Lengerken, 1941). The tribe Lawrencerosini, as far as known, is completely myrmecophilous (Kirejtshuk, 1990c and unpublished). Some African representatives of *Aethina (Aethina)* sensu stricto regularly live in nests of bees [*A. (A.) tumida* Murray, 1867 is recorded in nests of honey bees - Lundie, 1940 and its relatives are collected

in nests of other Apidae (Kirejtshuk, unpublished)]. Australian *Onicotis* Murray, 1864 and some Australian *Brachypeplus* (?*Brachypeplus*) sensu stricto are also associated with Apidae.

Some arboricolous forms, being related to mycetophagous ones, became facultative or obligatory predators of insect larvae and other soft invertebrates living under bark and wood, sometimes becoming as regular inhabitants of holes of Scolytidae [some *Epuraea (Epuraea)* sensu stricto; *Glischrochilus (Glischrochilus)* Reitter, 1873 sensu stricto; *Pityophagus* Shuckard, 1839 and others]. However, only for a few groups the predation can be regarded as a taxonomic peculiarity. Among them the predators on scale insects - many Cychramptodini from Nitidulinae and most Cybocephalinae (without trace of close kinship or evident similarity) have particular placements (Kirejtshuk, Lawrence, 1992). Some species of subgenus *Cybocephalus (Cybocephalus)* Erichson, 1844 sensu stricto are recorded as predators of whiteflies (Kirejtshuk, James, Heffer, 1997 and unpublished).

The Nitidulidae are characterized by a rather short larval development and comparatively long-living imagines, but both instars are very shortly active in contrast to many coleopterous groups, except for some groups from the superfamily Cucujoidea. Namely this circumstance allows the Nitidulidae to master and to be accustomed to extremely different types of substrate, frequently existing within a comparatively short period (as oozing tree sap, flowers with short duration of blossoming and so on).

HISTORIC DEVELOPMENT

Ponomarenko (1983) mentioned that the appearance of different Cucujoid families of beetles began at the end of the Lower Cretaceous. The mesozoic Nitidulidae, as well as other members of the superfamily Cucujoidea have been recorded exclusively from different layers of the Cretaceous, increasing in number to the end of this period (Ponomarenko, 1983; Dmitriev and Zherikhin, 1988; Kirejtshuk and Ponoma-

renko, 1990). The fossil data on Nitidulidae remains poorly known because of difficulty of investigation. Many references on Kainozoic deposits of Nitidulidae should be restudied to clarify their position, while some references on Mesozoic deposits (Martynov, 1926; Medvedev, 1969; Audisio, 1993) should be recognized as erroneous, and only the forms listed in Kirejtshuk and Ponomarenko (1990); Kirejtshuk (1994a) can be considered as true representatives of Nitidulidae [only palaeoendemic genera *Crepuraea* Kirejtshuk, 1990, *Cyllolithus* Kirejtshuk, 1990 (both in Kirejtshuk & Ponomarenko, 1990)]. At the same time the author knows many remains from the Cretaceous deposits of Kazakhstan in which it is easy to find the characteristic traits of the subfamily Epuraeinae, but there is no character to propose for them a taxon with both generic and species names. Unfortunately, no record of Nitidulid fossils has been published from the territory under consideration. Therefore the author can outline only the recent historic development which can be traced mainly after a study of modern distribution of the groups (which will be reviewed in the last part of the present monograph).

Diversification of the Cucujoidea seemed to arise and to be proceeding when the characteristic mesozoic groups of plants became more and yet more rare, until they were dislodged by the newly appeared Angiosperm plants. Thus, evolution of the Cucujoidea was, perhaps, associated with development of the Kainophytic flora, even though this coleopterous group could take its origin somewhat earlier. Interconnections between the Cucujoidea and Kainophytic plants were initially mediated through fungi. At the end of the Cretaceous, the closer and more intimate interconnections seemingly began to establish at first with generative organs of both Gymnosperms and Angiosperms and further with other plant organs. This process of ecological changes in the Kainozoic Coleoptera is clearly reflected among the Nitidulidae. Having admitted the mentioned argumentation Nitidulidae should be regarded as rather advanced and one of the youngest coleopterous groups of all (Kirejtshuk, 1994a and others), not archaic as it was treated in many previous interpretations.

Fossil faunas of Nitidulidae at the beginning of the Eocene are better documented, but mainly for Europe. In the Baltic amber there are represented recent genera from 4 subfamilies (Hieke, Pietrzeniuk, 1984): Epuraeinae (*Epuraea*, *Epuraeanella*), Carpophilinae (*Carpophilus*), Nitidulinae (*Cyllodes*), Cryptarchinae (*Cryptarcha* Shuckard, 1839), and only the *Omositoides* Schaufuss, 1891 was described as a new genus from amber records. Species from the Holarctic deposits of Oligocene and Miocene have been attributed to recent genera, except for *Epanuraea* Scudder, 1892, *Cychramytes* Wickham, 1913, *Miophenolia* Wickham, 1916 and *Oligamphotis* Theobald, 1937. The only quartenary *Protocarpophilus macgillavryi* De Jong, 1953 was described from Sumatra. 4 subfamilies represented among the forms from Baltic amber, the Cillaeinae are known from the Oligocene (Wickham, 1913) and Cybocephalinae - from the Miocene (Palmer, 1957). However, most records of Kainozoic Nitidulidae should be most thoroughly revised before a more detailed interpretation of the chronicles of this family is attempted.

Distribution

The members of the Nitidulidae have a world wide distribution, but the ranges of its groups have some restrictions. As a general rule there is an asymmetrical distribution of the Carpophilin- and Nitidulin-lineages, the first showing most diversity and fullest representation in the Eastern Hemisphere (without any generic endemism in South America and Hawaii), while the second has a much more raised diversification in the Western Hemisphere (with highest diversity in the Neotropical region and Hawaii). A character of the territory and fauna under consideration is the meeting of the Palaearctic and Indo-Malayan faunas here (in many groups between elevations of 2000-3000 m). Except some endemic suprageneric taxa listed above, the following features of distribution of the fauna can be noted before a detailed analysis of distribution in the last part of this monograph (including new taxa which will be described in further parts of the monograph):

I. Exclusively endemic Indo-Malayan supraspecific taxa:
- Epuraeinae, Epuraeini - *Epuraea (Ommoraea)* new subgenus, *E. (Ceroncura)*, *Grouvellia*, *Tetrisus (Tetrisus)* sensu stricto;
- Carpophilinae - *Ctilodes* Murray, 1864, *Vulpixenus* Kirejtshuk, 1990a;
- Meligethinae - *Cryptarchopria* Jelínek, 1975b; *Meligethes (Cyclogethes)* Kirejtshuk, 1979a; *Kabakovia* Kirejtshuk, 1979a;
- Nitidulinae, Nitidulini - *Parametopia*; *Taraphia*; *Pseudoischena* Grouvelle, 1897 = *Megauchenioides* Audisio et Jelínek, 1993;
- Nitidulinae, Strongylini - *Vietthercbnus* Kirejtshuk, 1985; *Tricanus*;
- Cryptarchinae, Cryptarchini - *Glischrochilus* (*Gymnoparomius*) Kirejtshuk, 1987b;
- Cybocephalinae - *Taxicephomerus* Kirejtshuk, 1994c;

II. Taxa with principal distribution in the Indo-Malayan region and East Chinese (Palaearchearctic) province of the Palaearctic region:
- Epuraeinae, Epuraeini - *Epuraea (Micruria)*;
- Meligethinae - *Meligethes (Meligethes)* sensu stricto;
- Nitidulinae, Nitidulini - *Ipidia (Hemipidia)* Kirejtshuk, 1992; *Ussuriphia*; *Physoronia*; *Atarphia*; *Pocadites*; *Hebasculinus*;
- Nitidulinae, Strongylini - *Neopallodes*;

III. Taxa with wide distribution and which are the most abundant taxa in the territory under consideration:
- Carpophilinae - *Carpophilus (Ecnomorphus)*;
- Nitidulinae, Nitidulini - *Soronia (Soronia)* sensu stricto;
- Nitidulinae, Strongylini - *Cyllodes*;
- Cryptarchinae, Cryptarchini: *Glischrochilus (Librodor)*;

IV. Taxa and groups of species with endemism or widest distribution in the Eastern Hemisphere (mostly tropicopolitous, except for *Cybocephalus* sensu lato):
- Carpophilinae: – *obsoletus*-group and *hemipterus*-group of *Carpophilus (Carpophilus)* sensu stricto;

- Nitidulinae, Nitidulini - *Aethina (Circopes)*;
- Nitidulinae, Cychramini - *Strongyllodes*;
- Cybocephalinae - *Cybocephalus* sensu lato;

V. Taxa sharing endemism or most diversity in the Indo-Malayan (Cincluding Papuan province), Australian and Novacaledonian regions:
- Epuraeinae, Epuraeini - *Epuraea (Haptoncurina)*, *E. (Haptoncus)*, *Propetes* sensu lato, *Tetrisus (Trimenus)*;
- Epuraeinae, Taenioncini new tribe - *Taenioncus*, *Taeniolinus* new genus, *Carpocryraea* new genus;
- Nitidulinae, Nitidulini - *Megauchenia*, *Lordites (Plesiothina)*, *Aethina (Olliffura)*;
- Nitidulinae, Strongylini - *Pallodes* sensu lato;

VI. Taxa sharing endemism or most diversity in the Indo-Malayan, Palaearctic and Nearctic regions:
- Epuraeinae, Epuraeini – *Epuraea (Epuraea)* sensu stricto, *E. (Epuraeanella)*;
- Carpophilinae - *Carpophilus (Megacarpolus)* Reitter, 1919;
- Nitidulinae, Strongylini - *Oxycnemus*;
- Cryptarchinae, Cryptarchini - *Glischrochilus (Librodor)*;

VII. Taxa sharing endemism or most diversity in the Indo-Malayan, Afrotropical, Capean and Madagascarean regions:
- Epuraeinae, Taenioncini new tribe - *Raspinotus*;
- Carpophilinae - *Urophorus (Anophorus)*;
- Meligethinae - *Meligethinus* Grouvelle, 1906c;
- Nitidulinae, Nitidulini - *Axyra*, *Lordites (Lordites)* sensu stricto, *Aethina (Aethina)*, *Anister*;
- Cillaeinae - *Ecnomaeus*;

VIII. Taxa with wide distribution (including the Indo-Malayan region), but comparatively weakly represented in the territory under consideration:
- Meligethinae - the subfamily in general, including *Pria*; *Meligethes (Clypeogethes)* Scholtz, 1932;

- Nitidulinae, Nitidulini - *Nitidula*, *Omosita*, *Thalycra*-complex of genera;
- Cillaeinae - the subfamily in general and, in particular, *Colopterus*, *Cillaeus*, *Platynema*;

IX. Taxa with wide distribution (including surrounding areas), but absent in the territory under consideration:
- Carpophilinae - *Urophorus (Urophorus)*;
- Meligethinae - *Meligethes (Astylogethes)* Kirejtshuk, 1992;
- Nitidulinae, Nitidulini - *Amphotis*;
- Cillaeinae - *Ithyphenes*;
- Cryptarchinae, Cryptarchini - *Pityophagus*.

DESCRIPTIVE METHODS

The traditonal methods of investigation of museum specimens have been used to carry on the study and to prepare this monograph. The usual optics and laboratory equipment (a line inside ocular and object micrometer) are used to measure the studied specimens and their parts. The measurement of body length is made between fore part of frons to pygidial apex or elytral apices if they entirely cover the abdomen. The body breadth is measured in the broadest part of body, usually at base of pronotum or elytra. The height is taken in the metasternal area of the body.

In descriptions of species the author mostly lists characters usable for diagnosis and omits other features which are attributed to the species there are included in „diagnoses", „notes" and mentioned for comparison or if these features are proper to the group comprising the described species. The text contains complete descriptions of new species and some complete redescriptions, also some remarks or additions to descriptions of species formerly insufficiently or confusedly described. In remaining cases the author restricts his consideration of species only to diagnoses given in key, „diagnoses" and „notes" (except for important and latest references, details of studied specimens and their depo-

sition). The distribution of each species is outlined in the mentioned references and indication as well as some zoogeographic conclusions will be done in the last part of this monograph. Description of taxa of supraspecific rank is compiled analogously to that of species. However, if any subgeneric or generic taxon consists of a single species, the author has tried to avoid repetition of the same characters (using the tradition of „*descriptio generica specifica*"), except in some cases, in where reiteration is necessary.

All names of insects are provided with appropriate references, while other animal, plant and fungal names are used according to recent interpretation, but without detailed references. The references to author and year for generic and specific names are given in the text mostly only at a first mention or in a special division with consideration of a taxon. For the sake of brevity, some references (at least to widespread species) available in Junk's catalogue (Grouvelle, 1913a) or such monographs as Parsons (1943), Kirejtshuk (1992) Audisio (1993) and others are partly omitted and only indications of recent publications for a comprehensive information on distribution. Some data, which was published in many sources or well known editions and can be regarded as a matter of common knowledge, is used without detailed references. Moreover, to shorten the text, some species from territories adjacent to the Himalayas and northern Indochina included in the identification keys are omitted in the general list, unless the author has specimens additional to those published previously. Many geographic labels are used in the section „M a t e r i a l" with part of the original transliteration, although all data on distribution are arranged according to the modern division and toponomy of the territory. Cyrillic letters on labels from Russian collections are translitered in accordance with the current names of localities in Latin letters (in English if they are used), but in some cases the proposed transliteration of labels accompanies the meaning of words in English. Finally, the proposed keys only contain main characters and it is sometimes advisable to consult the diagnoses and descriptions of the species for a reliable identification. All keys and diagnoses of species are usable only for imaginal stage, while the morphologies of larvae and pupae of almost all considered species remain unstudied.

The monograph is illustrated with maps showing the distributions of most considered species, except the common forms with very wide ranges extended far beyond the territory of the Himalayas and Indochina or spread in many localities on this territory. Besides, the species having a main distribution beyond the territory under consideration but recorded in some localities in the Himalayas and Indochina are provided mainly with references to important places in the continental part of the Indo-Malayan region. Finally, the species from adjacent territories, included in the keys and not recorded in this territory, remain, as a rule, without such type of illustrations.

KEY TO SUBFAMILIES AND TRIBES

1 a. Antennae 10-segmented with 1-segmented club and a lens-like preceding segment dorsoventrally undepressed; elytral epipleura having no lateral fold at curvature from dorsal side; elytra with subapical excision at outer corner; pygidium and part of preceding segment remaining uncovered by elytra; body somewhat flattened dorsally with particularly flattened hexagonal pronotum and convex ventrally; head elongate with rather projecting mandibles; body bright reddish with black elytra and with partly darkened antennae and legs, comparatively large - 5.5-11.7 mm. Known only from Malacca peninsula and island systems of the Indo-Malayan region ..... **Calonecrinae** (genus *Calonecrus* J. Thomson, 1857 - *C. rufipes* PASCOE 1861: Southern Thailand, Laem Ngop - NMW; Malaysia, Perak and Sarawak; Indonesia, Java)

1 b. Antennae usually 11-segmented or rarely 9-10-segmented with 2-8-segmented club more or less dorsoventrally depressed; elytral epipleura with a distinct fold at least in basal part of elytra; elytra without any subapical excision at outer corner, complete or remaining part of tergites (up to 4) uncovered; body usually moderately convex dorsally and ventrally with more or less rounded pronotal sides; infrequently less than 5.5 mm 2

2 (1) a. Tarsi 4-4-4; body small (usually 0.8-1.5, rarely up to 2.6 mm), hemispheric, rolling up in a ball; dorsum usually smooth and shiny with a reduced fine punctation; elytral epipleura reduced, downwardly sloping laterally (almost vertically); abdomen with 5 pairs of acting spiracles ..... **Cybocephalinae**

2 (1) b. Tarsi 5-5-5; body, as a rule, more than 1.0 mm, normally elongate or oval, if hemispheric (small forms never hemispheric), incapable of rolling up in a ball; dorsum usually with clear punctation, infrequently rather shallow but quite coarse; elytral epipleura different (normally upwardly sloping laterally), but never almost vertically sloping; abdomen with 6 pairs of developed spiracles 3

3 (2) a. Elytra sharply shortened and 1-3 tergites uncovered before pygidium; body elongate, pronotum and elytra jointly almost always transverse; all uncovered tergites heavily sclerotized 4

3 (2) b. Elytra complete or shortened, leaving uncovered at most the pygidium and part of preceding tergite; body more or less oval, rarely rather elongate; all tergites, except pygidium, membranous or slightly sclerotized (Taenioncini new tribe from Epuraeinae characterized by rather sclerotized tergite preceding pygidium and in some representatives this tergite completely uncovered by elytra; representatives of this tribe have rather convex body with normally both pronotum and elytra jointly or at least elytra, longer than combined width and not explanate at sides) 5

4 (3) a. Tergites uncovered by elytra flat, their combined length (with pygidium) usually much more than that of pronotum (excepting *Colopterus* with oval flattened body and uncovered tergites with their combined length subequal to that of pronotum); abdominal pleura bent dorsally, looking like wide stripes with a sharp fold to ventrites; body usually strongly flattened; anal sclerite of male directed posteriorly and tegmen unilobed or sometimes with a short medial excision at apex ..... **Cillaeinae**

4 (3) b. Uncovered tergites more or less convex, their combined length with pygidium, as a rule, not more than that of pronotum; abdomi-

nal pleura narrow, frequently almost invisible, gently bent on ventral side; body frequently moderately convex dorsally and ventrally [with some exceptions mainly among subflattened species of the subgenus *C. (Ecnomorphus)*]; anal sclerite of male turned ventrally and tegmen bilobed with an excision dividing it almost along whole length ..... **Carpophilinae**

5 (3) **a**. Labrum fused with frons, usually with a trace of this fusion as a suture or remains of it (subfamily **Cryptarchinae**) 6

5 (3) **b**. Labrum free, sometimes concealed under fore part of frons 8

6 (5) **a**. Prosternal process strongly widened before apex and at least half as wide as head; coxae in each corresponding pair widely separated each from other, distance between mid coxae not less than that between hind ones, comprising about half width of first ventrite; fore corners of mentum sharply projecting forwards; all femora strongly widened at trochanter; pronotal base without any trace of border and looking like a fold covering most of scutellum and elytral base; body oval and strongly convex dorsally, almost hemispheric ..... **Eucalosphaerini** (genus *Eucalosphaera* Jelínek, 1978)

6 (5) **b**. Prosternal process not widened, slightly or moderately widened before apex (only in *Platyarcha* the process rather strongly widened before apex); coxae in each corresponding pair closer to each other, distance between mid coxae much less than that between hind ones; fore corners of mentum blunt, not projecting forwards (only in *Platyarcha* the fore corners sharply acute and projecting forwards); femora weakly or moderately widened at trochanter; pronotum almost always with a border (sometimes reduced medially) and not looking like a fold covering scutellum and elytral base; body flattened or moderately convex dorsally, or rarely rather strongly convex 7

7 (6) **a**. Moderately and weakly convex ventrally and dorsally; antennal club well and normally developed (quite compact); elytra with

narrowly explanate sides and rounded (not truncate) apices frequently forming a continuous arc; mentum with fore corners not projecting forwardly; prosternal process of a usual outline; distance between fore coxae narrower than that between both mid and hind coxae ..... **Cryptarchini**

7 (6) **b**. Rather flattened dorsally and ventrally; antennal club comparatively small, nearly 2-segmented with 9th segment weakly widened anteriorly; elytra with widely rounded sides and truncate apices; mentum with fore corners strongly projecting forwards; prosternal process strongly widened before truncate apex; the distance between mid coxae less than that between both fore and hind coxae ..... **Platyarchini** new tribe (type-genus: *Platyarcha* Kirejtshuk, 1987b)

8 (5) **a**. Mid and hind tibiae strongly depressed dorsoventrally and with one outer border bearing setae or marked hairs different from those on remainder of these structures; pygidial base with a pair of very wide arc-like depressions, usually partly covered by preceding tergite ..... **Meligethinae**

8 (5) **b**. Mid and hind tibiae not so strongly depressed dorsoventrally and usually with 2 outer borders bearing setae, spinae or marked hairs different from those on remainder of these structures; pygidial base without a pair of very wide arc-like depressions (or with 8 small arc-like ones along its edge and usually partly covered by preceding tergite). 9

9 (8) **a**. Dorsal punctation always diffuse; pubescence more or less visible; body elongate or, if oval, moderately convex dorsally; pronotum never bordered at base; male: anal sclerite far exposed posteriorly from under truncate or subtruncate pygidial apex or hypopygidium, with a large movable lobe before apex; tegmen deeply excised into two lobes 10

9 (8) **b**. Dorsal punctation, pubescence, pronotal base and body shape diverse; male: anal sclerite normally unexposed or slightly exposed

from under untruncate pygidial apex (only in *Neopallodes* pygidial apex truncate and anal sclerite exposed comparatively far posteriorly, but body strongly convex dorsally and glabrous); hypopygidium without any distinct movable lobe; tegmen unexcised or shallowly excised at apex (subfamily **Nitidulinae**) 12

10 (9) a. Body widely oval and usually larger (at least 3.5 mm), flattened ventrally, evenly and moderately convex dorsally; pronotal and elytral sides with long dense ciliae; male: anal sclerite not exposed from under pygidial apex; hypopygidium with a large movable lobe before apex ..... **Amphicrossinae**
(genus *Amphicrossus* Erichson, 1843)

10 (9) b. Body usually elongate or elongate oval and very rarely larger than 3.5 mm; as a rule, moderately convex dorsally and ventrally; pronotal and elytral sides without distinct ciliae or very finely and shortly ciliate; male: anal sclerite clearly exposed (except few cases) from under pygidial apex; hypopygidium without any movable lobe before apex (subfamily **Epuraeinae**) 11

11 (10) a. Elytra with truncate apices leaving pygidium and almost all of preceding tergite uncovered; body elongate, subparallesided and rather convex dorsally, with very narrowly explanate or unexplanate pronotal and elytral sides; pubescence short or reduced (up to invisible) ..... **Taenioncini** new tribe

11 (10) b. Elytra with various configurations of apices, covering abdomen completely or leaving exposed only pygidium or in few cases also part of preceding tergite; body usually more or less oval and moderately convex dorsally, as a rule, with moderately or widely explanate sides; pubescence moderately developed or slightly reduced ..... **Epuraeini** sensu stricto

12 (9) a. Body strongly convex dorsally with unexplanate pronotal and elytral sides and head somewhat inclined ventrally; dorsal surface glabrous (pygidium finely pubescent, exceptionally); pronotum diffusely punctate and with unbordered base partly covering scutellum and elytral bases; prosternum more or less shortened; male: tegmen with an unpaired long lobe, sometimes shallowly excised at apex; female: ovipositor with a sharply acute apex without styli, rarely rather long with slightly modified sclerites, which often have styli ..... **Strongylini**

12 (9) b. Body diverse, but never with same combination of all features as mentioned above; dorsal surface in most cases with quite visible pubescence (usually well developed); pronotum with various punctation and, as a rule, with a clear border along base; prosternum not shortened or a little shortened (in species of tribe Cychramini); male: structure of aedeagus various; female: ovipositor, if strongly modified, in a different way 13

13 (12) a. Body rather evenly convex from above with unexplanate pronotal and elytral sides, head somewhat inclined ventrally; dorsal surface strongly pubescent; pronotum diffusely punctate with an unbordered base partly covering scutellum and elytral bases; prosternum more or less shortened with a rather short intercoxal process; female: ovipositor with blunt or truncate and nearly membranous apex without or with clearly reduced styli ..... **Cychramini**

13 (12) b. Body diverse, but never with the same combination of all features as mentioned above; prosternum not or slightly shortened; female: ovipositor with various apices, but if styli absent, apex sharply acute or distinctly excised medially ..... **Nitidulini**

Subfamily Epuraeinae Kirejtshuk, 1986

=Epuraeini Kirejtshuk, 1986c: 27; Kirejtshuk, 1992: 116, 120; Epuraeinae: Kirejtshuk, 1994a: 297; Kirejtshuk, 1996b: 23; Kirejtshuk, Pakaluk, 1996: 139. Type-genus: *Epuraea* Erichson, 1843 (designation by Kirejtshuk, 1986c: 27).

Description: This subfamily mostly includes the forms with moderate sizes of body (1.2-7.2 mm in length); usually moderately con-

vex dorsally and somewhat flattened or weakly convex ventrally, with more or less even integument. Coloration varies from straw unicolored to completely black, sometimes either with dark or light pattern, or with darkened or lightened either segments or appendages, although most representatives are reddish or brownish. Body covered with more or less uniform punctation (frequently not quite distinct); interspaces between punctures usually distinctly microreticulated or alutaceous. Pubescence often consists of more or less uniform, fine short and not dense, moderately conspicuous hairs, or sometimes strongly reduced (up to absent). Prognathous head with distinctly bilobed labrum, moderately developed or rarely very long mandibles bearing well developed mola and prostheca. Antennae 11-segmented, with 3-segmented elongate and not strongly compact club [*Epuraea* (*Ceroncura*) has 8-segmented antennal club], clearly dorsoventrally depressed, last antennomere with one sensillate capsule which opens at apex. Pronotum and elytra with sides almost always distinctly bordered and usually more or less explanate. Elytra rarely complete, but usually more or less shortened, with clearly separated epipleura sharply turned ventrally and becoming obsolete towards their apices. Fore coxal cavities not completely closed posteriorly. Mesosternum, as a rule, somewhat deepened (excavate) in comparison with remainder of underside and frequently with a medial carina swollen in the middle. Metasternum transverse or subquadrate, usually with a more or less distinct medial suture and trace of paracoxal sutures along fore edge of coxal cavities. Male tergite VIII transformed into an anal sclerite, heavily sclerotized, well raised and projecting far beyond pygidial apex. Tibiae comparatively narrow and not strongly flattened, fore usually with a crenulate outer edge, mid and hind ones with two borders, or rarely one border, bearing a row of setae or spinae. Femora with excavations for reception of base of tibiae. Tarsi 5-5-5, tarsomeres 1-3 usually lobed or rarely simple. In the male genitalia, the tegmen consists of two lobes with a deep medial excision, and the penis trunk is more or less membranous and not quite distinctly dorsoventrally compressed. Characters of sexual dimorphism more usually manifest in structure of legs (more frequently in shape of mid tibiae, rarely in shape of other tibiae and femora, as well as in width of fore tarsi), although sometimes they occur in mandibles and other mouthparts, shape of head, prothoracic segment and elytral apices.

D i a g n o s i s: The subfamily under consideration has most external similarity to the Carpophilinae (especially some forms from Taeniooncini new tribe - see below). The crucial characters to separate these subfamilies are the peculiarities of structure of male genitalia and disposition of male anal sclerite. Male anal sclerite in the Epuraeinae projects distally, the hypopygidium is not strongly excised (but more frequently with convex hind edge), and therefore the aedeagus can only move backwards; male anal sclerite in the Carpophilinae is curved ventrally, the hypopygidium strongly excised medially, and therefore the aedeagus can only exsert down and more or less forwards. At the same time the Epuraeinae have, as a rule, less and evenly convex, rather oval body, with distinctly more or less explanate sides, while the Carpophilinae usually are more convex or vaulted at sides, more elongate or subquadrangular, with almost not or extremely narrowly explanate sides. Finally, similarity of the Epuraeinae to some Meligethinae, Nitidulinae and Cryptarchinae is due to a clearly convergent character and could not be used to link these groups phylogenetically or taxonomically (Jelínek, 1975b, 1992; Kirejtshuk, 1994a, 1996a etc.), although some relations between these groups seem to be expected.

N o t e s: The separation of this group from the subfamily Nitidulinae was grounded in the completely different structure and function of the male genitalia (Kirejtshuk, 1986c and see above). All nitidulid groups with deeply split tegmen and weakly sclerotized penis trunk (excepting Calonecrinae) were united in the subfamily Carpophilinae, although for Epuraea and and allied genera the tribe Epuraeini was proposed. Later, however, some doubts on the monophyly of Carpophilinae sensu Kirejtshuk, 1986c stimulated erection of the tribes Epuraeini and Amphicrossini to separate subfamilies (Kirejtshuk, 1994a). The similarity of these subfamilies in genital structure could be reached as a result of parallel structural transformations and, thus, it is not an evident sequence of diversification of all considered groups from any common ancestor. The subfamily Epuraeinae has the simplest appearance among the Nitidulidae. However, this peculiarity was acquired rather as a sequence of acceleration of development than initial structural archaism, and therefore interpretation of it as an ancestral heredity would be very problematic. At the same time many Epuraeinae appeared in some de-

posits from the Lower Cretaceous. Therefore it should be admitted that this group, if it is not very close to ancestral, was separated from other Nitidulidae long ago (probably at main stages of diversification of the family).

Bionomy: Bionomy of the subfamily is highly variable, however most representatives of most numerous, abundant and generalized groups [subgenera *Epuraea (Epuraea)* sensu stricto, *E. (Epuraeanella)* and *E. (Micruria)*] are mostly connected with arboricolous fungi. Many groups include some forms with mycetophagous larvae and anthophagous imagines, but other groups are completely anthophagous (listed in the bionomy to general part of the family - see above). Most species of the tribe Epuraeini are mycetophagous, but the tribe Taenioncini seem to be represented mainly by anthophagous members. Nevertheless, anthophagous forms of this subfamily usually prefer flowers of trees and bushes. Imaginal activity of most representatives of the subfamily falls on spring and early summer, although some of them are collected the year round. Larval development is very short and takes place mostly in late spring among the forms with spring imaginal activity, but in other cases breeding of larvae can occur in different time (while the available substrate is present).

Composition: The Epuraeinae consists of two tribes. One of them is the Epuraeini sensu stricto comprising most generic and subgeneric taxa of the subfamily. Another tribe (Taenioncini new tribe) is composed of taxa included in the present monograph and a few undescribed taxa from Australia.

Distribution: This subfamily has its principal distribution in the Eastern Hemisphere, and only *Epuraea (Haptoncus) luteola* and representatives of the subgenus *E. (Amedanyraea)* Kirejtshuk et Pakaluk, 1996 occured in South America before the spread of some epuraein species from other tropical and subtropical territories due to introduction by man [mostly species from the subgenus *E. (Haptoncus)*]. The Palaearctic and Indo-Malayan regions (including Papuan province) are characterized by the greatest number and both diversity of representatives of this subfamily. The most numerous group of the subfamily [subgenus *E.* (*Epuraea*) sensu stricto] is mainly distributed in these zoogeographical regions, although quite a number of species of this group are also in the Nearctic and Australian regions. On the other hand, the greatest number of taxa is recorded from the three zoogeographical regions, mentioned above; however, these taxa are most abundant namely in the Indochinese province and insular part of the Indo-Malayan region.

List of species of Epuraeinae recorded from the Himalayas (HIM) and northern Indochina (INCH)

Epuraeini sensu stricto

1. *Epuraea (Haptoncurina) facetata*	INCH
2. *Epuraea (Haptoncurina)* aff. *gestroi*	HIM INCH
3. *Epuraea (Haptoncurina) motschulskyi*	HIM INCH
4. *Epuraea (Haptoncurina) reflexicollis*	HIM INCH
5. *Epuraea (Haptoncus) concolor*	HIM INCH
6. *Epuraea (Haptoncus) dubia*	INCH
7. *Epuraea (Haptoncus) fallax*	HIM INCH
8. *Epuraea (Haptoncus) fanuli*	INCH
9. *Epuraea (Haptoncus) luteola*	HIM INCH
10. *Epuraea (Haptoncus) morbosa* new species	INCH
11. *Epuraea (Haptoncus) ocularis*	HIM INCH
12. *Epuraea (Epuraea) acea* new species	HIM
13. *Epuraea (Epuraea) acelsa* new species	HIM
14. *Epuraea (Epuraea) aduncta*	INCH
15. *Epuraea (Epuraea) aestiva*	?INCH
16. *Epuraea (Epuraea) birmanica*	HIM INCH
17. *Epuraea (Epuraea) cameroni* new species	HIM
18. *Epuraea (Epuraea) championi* new species	HIM
19. *Epuraea (Epuraea) compacta* new species	HIM INCH
20. *Epuraea (Epuraea) contraria* new species	HIM
21. *Epuraea (Epuraea) cribrata*	HIM

Tribe Epuraeini Kirejtshuk, 1986

=Epuraeini Kirejtshuk, 1986c: 27; Kirejtshuk, 1992: 116, 120. Type-genus: *Epuraea* Erichson, 1843 (designation by Kirejtshuk, 1986c: 27).

D i a g n o s i s: The hiatus between both tribes of the subfamily Epuraeinae contains differences in general appearence, character of punctation and sculpture, and especially characteristic structure of shortened elytra and abdominal apex uncovered by them. The Epuraeini have more oval and slightly or moderately convex body, with slightly vaulted pronotal and elytral sides, usually smaller eyes composed of moderate facets, more or less raised antennal grooves, elytra almost complete to leaving uncovered at most only a part of tergite VI, all pairs of coxae usually more separated from each other, usually with less distinct punctation and more contrasting microreticulation on interspaces. Diagnostic characters for both tribes are given in the above key and will be discussed in detail in the diagnosis to the describtion of Taenioncini new tribe (see below).

N o t e s: The separation of this tribe is connected with inclusion in the subfamily of some carpophilin-like relatives formerly described as *Epuraea*, *Haptoncus* or *Carpophilus* (Murray, 1864; Grouvelle, 1897, 1903) and description of new taxa of the group here treated as Taenioncini new tribe (Kirejtshuk, 1990a, 1994c).

This tribe in contrast to Taenioncini new tribe contains the overwhelming majority of species of the subfamily, and its distribution can be characterized as that of the subfamiliar one (see above). The Epuraeinae includes some genera with greatest distribution in the Eastern Hemisphere. The Indo-Malayan fauna of it is the richest and seems to have a comparatively generalized character. The greatest diversity of generalized forms of this tribe is observed in the composition of insular faunas of the Indo-Malayan region, still remaining poorly known. The Himalayan and Indochinese faunas look comparatively deviated and show a considerable similarity to Holarctic representantives of this tribe [especialy in subgenera *E. (Epuraea)* sensu stricto and *E. (Epuraeanella)*]. Finally, subgenus *E. (Micruria)* has the most diversity in the

East Chinese (Palaearchearctic) and Himalayan provinces as well as in the Indochinese province, but some forms only exceed this territory in both the Palaearctic and Indo-Malayan regions (see below).

B i o n o m y: Bionomy of the tribe is as highly variable as the subfamily as a whole (see above - bionomy to general part of the family and bionomy to general part of the subfamily and below - bionomy to genera, subgenera and species). The most groups of this tribe show some connection with trees and bushes in different types of forest, brushwood and other places (including cultural plantations). Many groups include some forms with mycetophagous larvae and anthophagous imagines, but other groups are completely anthophagous (listed in the bionomy to general part of the family - see above). Imaginal activity of most representatives of the subfamily falls on spring and early summer, although some of them are collected the year round.

C o m p o s i t i o n and d i s t r i b u t i o n: The Epuraeini sensu stricto comprises most generic and subgeneric taxa of the subfamily. This tribe should be linked also together with the fossil *Crepuraea* Kirejtshuk in Kirejtshuk et Ponomarenko, 1990 (Lower Cretaceous, Transbaikalia) and *Epanuraea* Scudder, 1892 (Oligocene, south of USA). The following taxa recorded on the territory under consideration will be discussed in the present monograph later: *E. (Epuraea)* sensu stricto, *E. (Ceroncura)*, *E. (Epuraeanella)*, *E. (Ommoraea)* new subgenus, *E. (Micruria)*, *E. (Haptoncus)*, *E. (Haptoncurina)*, *Grouvellia*, *Propetes (Mandipetes)*, *P. (Propetes)* sensu stricto, *Tetrisus (Tetrisus)* sensu stricto and *T. (Trimenus)*. In addition, this tribe includes such generic and subgeneric taxa as: *Epuraea (Aphenolia)* Reitter, 1884 [2 species from the Palaearctic (Primorsky kray, Kuriles, Korea and Japan) and Nearctic (USA) regions and, perhaps, 1 species (*Aphenolia bakeri* Grouvelle, 1914a) from Philippines], *E. (Africaraea)* Kirejtshuk, 1989b (about 10 species from the Afrotropical, Capean and Madagascarean regions), *E. (Amedanyraea)* Kirejtshuk et Pakaluk, 1996 (6-7 species from Central and South America), *E. (Apria)* Grouvelle, 1919 (8 species from the Afrotropical and Capean regions), *Epuraea (Baloghmena)* Kirejtshuk, 1987a (1 species from New Guinea), *Ceratomedia* Kirejtshuk, 1990c (1 species from Australia), *E. (Dadopora)* C.G. Thomson, 1859 (2 spe-

cies from Mediterranean area), *E. (Horniraea)* Kirejtshuk et Pakaluk, 1996 (1 species from the Nearctic region), *E. (Marinexa)* Kirejtshuk, 1989b (2 species from the Afrotropical region), *Mystronoma* Kirejtshuk, 1990c (3-4 species from Sulawesi, New Guinea and the Australian region), *Epuraea (Orthopeplus)* Horn, 1879 (1 species from the Nearctic region), *E. (Parepuraea)* Jelinek, 1977 (5-10 species from the Afrotropical, Capean and Madagascarean regions), *E. (Platychorina)* Grouvelle, 1905 (4-5 species from the Afrotropical and Madagascarean regions), *E. (Polinexa)* Kirejtshuk, 1989b (about ten species mostly from the Afrotropical region), *Somaphorus* Murray, 1864 (1 species from Philippines), *Tritesus* Heller, 1916 (1 species from New Caledonia).

Key to genera and subgenera of Epuraeini sensu stricto

1 a. Mentum elongate; antennal club rather long and almost undepressed dorsoventrally; labial palpi very long (with last palpomere 3 times as long as thick); exposed part of labrum as long as broad at fore edge of frons; head elongate with comparatively strongly projecting mandibles; body rather small (1.4-2.0 mm) with very long and narrow legs. Figs. 465-470 . . . . . VIII. *Grouvellia* Kirejtshuk, 1984 [*G. picea* (Reitter, 1873): India, Assam, Darjeeling; Myanmar (Burma); Vietnam]

1 b. Mentum transverse; antennal club various and more or less distinctly dorsoventrally depressed; combination of other characters different 2

2 (1) a. Antennal club (at least in males) comprising 8 segments; body oval, evenly and moderately convex dorsally, with moderately explanate pronotal and elytral sides, elytra with oblique apices and greatest length at suture; reddish with darkened discs of head and pronotum, and lateral and apical parts of elytra. Male: hind femur with a prominence in proximal half along its outer edge, mid and hind tibiae of modified configuration. 2.5 mm. Figs. 433-439. . . . . VI. *Epuraea (Ceroncura)* Kirejtshuk, 1994 [*E. (C.) dubitabilis* (Grouvelle, 1890): Myanmar (Burma)]

2 (1) b. Antennal club comprising, as a rule, 3 segments, but not more than 4, or rarely the first of them rather small 3

3 (2) a. Eyes composed of rather large facets with diameter nearly as large as thickness of tarsomere 5 at base (some species of *Propetes* with intermediate size of eye facets, having, however, abnormally strongly vaulted body with extremely narrowly explanate pronotal and elytral sides, eyes rather strongly prominent laterally, antennae very prolonged with a club rather elongate, stout legs with very wide tibiae and male anal sclerite strongly convex dorsally) 4

3 (2) b. Eyes composed of moderately small facets with diameter much less than thickness of tarsomere 5 at base; body more or less evenly convex or flattened; eyes never strongly prominent laterally; antennae of usual length, proportions and configurations of segments, including club; male anal sclerite never strongly convex dorsally 8

4 (3) a. Pronotal fore and hind corners with sharply acute apices; elytra also with sharply acute apices; scutellum with a narrow excision on either side before base; mentum with widely rounded outline; fore femur with a wide prominence at the middle of fore edge; tarsi much shorter than half of tibiae with extremely small claws. 3.5 mm. Figs. 273-279 . . . . . IV. *Epuraea (Ommoraea)* **new subgenus** [*E. (O.) acutocaudalis* **new species** Thailand]

4 (3) b. Pronotal fore corners always and hind ones rather often rounded, or hind ones blunt, never sharply acute; elytral apices truncate, rounded or only subacute; scutellum with gently outlined sides; mentum of usual configuration [excepting species of *Propetes (Propetes)* sensu stricto and *P. (Mandipetes)*]; all femora without any prominence on fore or hind sides; tarsi about as long or longer than half of tibiae with normally developed claws 5

5 (4) a. Antennae more or less elongate with a modified and very long club; body oval, with very narrowly explanate, almost unexplanate

sides and dorsum strongly vaulted; mandibles with more or less prolonged and acute apices; labrum with far projecting lobes; male anal sclerite strongly convex dorsally 6

5 (4) b. Antennae of usual length, proportions and configurations of segments, including club; body of various shapes, most frequently with moderately or widely explanate sides and weakly or moderately convex dorsum; mandibles moderately raised or slightly prolonged; labrum usually or rarely with far projecting lobes; male anal sclerite only slightly convex or flattened dorsally 7

6 (5) a. Mandibles, if long, with a simple apex or, if short, with a small subapical tooth; mentum longest in the middle; maxillary lobe and palpus comparatively long, but of usual structure; sides of pronotum not narrowed to base forming subacute apices of hind corners, or gently narrowed with widely rounded apices, fore edge of pronotum usually with complete carina; body unicoloured light reddish to chestnut brownish, nearly dull, with diverse hairs (from short and recumbent to long and suberect), but with distinct ciliae along pronotal and elytral sides. 1.5-3.2 mm. Figs. 471-478 . . . . . IX. *Propetes (Propetes)* Reitter, 1875 [*P. (P.) nigripennis* (Redtenbacher, 1867): India, Assam, Mysore, Kerala; Myanmar (Burma); Vietnam; Japan, Ryukyu; China, Taiwan; Indonesia, Lombok]

6 (5) b. Mandibular apex with two long teeth; mentum rather enlarged, subquadrangular and longest at sides; maxillary lobe very narrow and long with setae posteriorly orientated along its inner edge, and palpus very long, with ultimate and penultimate segments dilated at apices and with setae posteriorly orientated along its inner edge; sides of pronotum similarly narrowed anteriorly and posteriorly, hind corners with angular blunt apices, fore edge of pronotum with an obsolete carina; body bright reddish with somewhat darkened pronotum, thoracic sterna and 1-3 ventrites, and with chestnut brown elytra, with a particularly bright shine; extremely fine, scarcely visible, very short hairs, pronotal and elytral sides without distinct ciliae. 2.8 mm with mandibles and 2.5 without them. Figs. 479-485

. . . . . X. *Propetes (Mandipetes)* Kirejtshuk, 1997 [*P. (M.) intritus* Kirejtshuk, 1997: North Vietnam]

7 (5) a. Head with larger eyes and temples not extending behind them; body, as a rule, more slender and less oval . . . . . I. *Epuraea (Haptoncurina)* Jelínek, 1977

7 (5) b. Head with somewhat smaller eyes and temples more or less wedged in their back side or not infrequently extended beyond outer edge of eyes; body usually more robust and more oval . . . . . II. *Epuraea (Haptoncus)* Murray, 1864

8 (3) a. Mid and hind or all tarsi consisting of completely simple tarsomeres; body, on average, larger and more heavily sclerotized (4.0-6.5 mm or rarely a little smaller); dorsum evenly and moderately convex or somewhat flattened with distinct, coarse punctation and smooth interspaces 9

8 (3) b. Mid and hind tarsi with more or less clearly lobed tarsomeres 1-3; body usually smaller than 3.5 mm and with dorsum not or less distinctly punctured; or, if punctation distinct, body smaller than 3.0 mm 10

9 (8) a. Antennal grooves fairly well developed, long, slightly convergent behind mentum and distinctly outlined; prosternum roof-like and with a flattened and strongly projecting process, covering a considerable part of mesosternum; 7th abdominal segment much longer than 5th and 6th taken separately; fore tarsi with tarsomeres 1-3 simple, bisetose empodium invisible; body rather dark, smaller (3.4-4.7 mm), slender (more than twice as long as wide) and a little more convex . . . . . *Tetrisus (Tetrisus)* Murray, 1864 [*T. (T.) cholevoides* Murray, 1864: Malaysia and Indonesia: Kalimantan]

9 (8) b. Antennal grooves weakly developed, short and strongly convergent behind mentum; prosternum normally convex along the middle with a process moderately projecting and not flattened, cove-

ring only the anterior part of mesosternum; 5-7th abdominal segments each of comparable size; fore tarsi with tarsomeres 1-3 more or less lobed, bisetose empodium well visible through usual optics; body diverse in coloration, on the average much larger than 4.0 mm, more robust (not more than twice as long as wide) and more or less depressed from above ..... XI. *Tetrisus (Trimenus)* Murray, 1864

10 (8) a. Tarsal claws with a more or less raised tooth at base; dorsum largely dull and rather conspicuously microreticulated (except for species of the *consobrina*-group with comparatively weak tooth, but their body especially dull and evenly convex with a specific type of secondary sexual dimorphism in structure of legs) ..... V. *Epuraea (Micruria)* Reitter, 1875

10 (8) b. Tarsal claws simple or slightly bulging at base; dorsum more frequently more or less shiny and variable in sculpture [only *Epuraea (Epuraea) aduncta* and *E. (E.) pliginskyi* with a well raised tooth at tarsal base, but in contrast to members of *Epuraea (Micruria)* these species have comparatively wide and somewhat flattened body, much more separated hind coxae] 11

11 (10) a. Ventral side of epicranium with very deep and sharply outlined antennal grooves, strongly approaching each other and with postocular fossae of complex configuration; hind coxae always widely separated from each other; hind edge of metasternum scarcely emarginate; dorsum normally with well developed depressions on pronotal disc before scutellum, punctation rather distinct; body more or less dark ..... VII. *Epuraea (Epuraeanella)* Crotch, 1874

11 (10) b. Ventral side of epicranium with feebly developed antennal grooves, indistinctly outlined and not so close to each other at base; postocular fossae, if raised, of simple configuration and sometimes replaced on lateral surface; hind coxae not infrequently comparatively close each other; hind edge of metasternum more or less arcuately or angularly emarginate; dorsum very rarely with traceable

depressions on pronotal disc before scutellum and punctation, as a rule, not quite distinct; body usually reddish [only *Epuraea (Epuraea) nepalica* new species and *E. (E.) propingua* have a combination of characters similar to that mentioned for *E. (Epuraeanella)*, though with feeble antennal grooves and lack of postocular fossae on ventral side of epicranium, and the second is also with evenly convex pronotal disc] ..... III. *Epuraea (Epuraea)* Erichson, 1843

Genus *EPURAEA* Erichson, 1843

=*Epuraea* Erichson, 1843: 267; Sturm, 1844: 44; Erichson, 1845: 139, 140; Lacordaire, 1854/1855: 301, 302; Jacquelin Du Val, 1858: 141, 158; Thomson C.G., 1859: 68; Reitter, 1872: 1-36; Reitter, 1873: 10, 17; Horn, 1879: 287, 288; Reitter, 1884a: 259, 260; Marseul, 1885: 20, 46; Seidlitz, 1888a: 210; Seidlitz, 1888b: 225; Sharp, 1890: 306; Ganglbauer, 1899: 464, 470; Lameere, 1900: 345, 346; Grouvelle, 1908: 340, 346; Reitter, 1911: 26, 29; Grouvelle, 1913a: 107; Reitter, 1919: 60; Sjöberg, 1939: 108; Parsons, 1943: 185; Méquignon, 1954: 30; Hansen, 1950: 50; Böving, Rozen, 1962: 292 (larvae); Spornraft, 1967: 51; Jelínek, 1977: 350; Jelínek, 1978: 179-199; Pototzkaya, 1978: 570 (larvae); Hayashi, 1978: 12-15, 33-34 (larvae); Audisio, 1980: 126; Kirejtshuk, 1989b: 64-77; Kirejtshuk, 1992: 120; Audisio, 1993: 280; Kirejtshuk, Pakaluk, 1996: 139. Type-species: *Nitidula decemguttata* Fabricius, 1792, non *Nitidula decemguttata* Olivier, 1790 (designation by Parsons, 1943: 185).

Description: This genus is the most numerous and the most diverse in the tribe Epuraeini. The members of it are moderately convex dorsally and somewhat flattened or weakly convex ventrally, with more or less even integument. Coloration varies from straw unicolored to completely black, sometimes either with dark or light pattern, or with either darkened or lightened segments or appendages, although most representatives are reddish or brownish. Body covered with more or less uniform punctation (frequently not quite distinct); interspaces between punctures usually distinctly microreticulated or alutaceous.

Pubescence often consists of more or less uniform, fine short and not dense, moderately conspicuous hairs. Antennae usually 11-segmented, with 3-segmented, usually not quite compact club [except for *Epuraea* (*Ceroncura*) with 8-segmented antennal club]. Prosternal intercoxal process very variable, in most cases widened before apex and more or less curved along the coxae. Pronotum and elytra with sides almost always distinctly bordered and usually more or less explanate. Mesosternum more or less deepened (excavate) in comparison with remainder of underside. Characters of sexual dimorphism more usually manifest in structure of legs (more frequently in shape of mid tibiae, rarely in shape of other tibiae and femora, as well as in width of fore tarsi) and elytral apices.

D i a g n o s i s: This genus is the most variable among groups of the subfamily, but its subgenera recorded from the territory under consideration can be diagnosed according to the above key. *Epuraea* sensu lato is characterized by such features as: usually more or less oval and more rarely elongate, not dark and not strongly sclerotized body with usually more or less indistinct punctation and microreticulated integument; more or less explanate pronotal and elytral sides; elongate and not strongly compact antennal club; moderately developed mouth parts with transverse mentum; comparatively narrow intercoxal prosternal process, usually curving along fore coxae; most often close mid and moderately separated hind coxae; elytra more or less shortened; legs moderately developed, rather narrow and comparatively long, with lobed tarsomeres 1-3 (although in some cases they appear simple); secondary sexual dimorphism in shape of legs (frequently in width of fore tarsi and shape of mid tibiae), weakly sclerotized and more or less generalized structure of genitalia of each sex.

N o t e s: This genus is characterized by the most simple structure among the tribe and presumably it includes the most archaic representatives of the subfamily.

B i o n o m y: Bionomy of the genus is highly variable (see above - bionomy to general part of the family and notes to general part of the subfamily and below - notes to subgenera). Nevertheless, most representatives of this genus are adhered to forest of different types, mostly feeding decaying tissues of trees and bushes, fermenting tree sap or pollen in flowers. Some subgenera of it recorded from the territory under consideration are almost completely mycetophagous [*Epuraea (Epuraea)* sensu stricto, *E. (Epuraeanella)*], while other groups [*E. (Ceroncura)*, *E. (Haptoncurina)*, *E. (Haptoncus)*, *E. (Micruria)* and *E. (Ommoraea)* new subgenus] are to a more or less extent anthophilous or completely anthophagous (at least their imagines).

C o m p o s i t i o n and d i s t r i b u t i o n: The genus *Epuraea* sensu lato comprises many subgenera and is distributed in all zoogeographic regions, although South America and some Polynesian insular systems are mostly inhabited by cosmopolitan species. Subgenera present in the considered fauna are: *Epuraea* (*Ceroncura*), *E.. (Epuraea)* sensu stricto, *E. (Epuraeanella)*, *E. (Haptoncurina)*, *E. (Haptoncus)*, *E. (Micruria)* and *E. (Ommoraea)* new subgenus. The subgenus *E. (Aphenolia)* is only recorded in the East Chinese (Palaearchearctic) province, ? Philippines and Nearctic region, while *E. (Dadopora)* C.G. Thomson, 1859 is known only from the west part of the Palaearctic region. The subgenera *E. (Africaraea)*; *E. (Apria)*; *E. (Marinexa)* Kirejtshuk, 1989b; *E. (Parepuraea)* Jelínek, 1989b; *E. (Platychorina)* Grouvelle, 1905 and *E. (Polinexa)* Kirejtshuk, 1989b are endemic for Afrotropical, Capean and Madagascarean regions, although some of these taxa can be treated as genera. The subgenera *E. (Horniraea)* Kirejtshuk et Pakaluk, 1996 and *E. (Orthopeplus)* Horn, 1879 are endemic for the Nearctic region and subgenus *E. (Amedanyraea)* is distributed in Central and South America. Finally, composition of Australian and New Zealandian members is still unrevised, but there at least one subgenus should be erected.

I. Subgenus *Epuraea (Haptoncurina)* Jelínek, 1977

=*Haptoncurina* Jelínek, 1977: 376. Type-species: *Epuraea angustula* Motschulsky, 1863, non *Epuraea angustula* Sturm, 1844 (designation by Jelínek, 1977: 376). [Hayashi, 1978: 14, 33 (larvae)]

=*Epuraea (Haptoncurina)*: Kirejtshuk, 1989a: 69; Kirejtshuk, 1992: 121; Kirejtshuk, 1996b: 24; Kirejtshuk, Pakaluk, 1996 139.

Diagnosis: The subgenus is characterized by rather simple structure in comparatively small, oval or elongate, somewhat flattened or evenly convex body, large eyes composed of rather large facets, pronotum with straight fore edge and hind corners not projecting, elytra with transversely truncate apices, lacking secondary sexual characters on legs and elytra, weakly sclerotized and uniform configurations of sclerites in genitalia of both sexes. Last maxillary palpomere distinctly transverse, widened to apex. Many of the external and genital structures available for comparison and distinction are rather variable in all species of the group. These peculiarities make difficult the identification of species without synoptic specimens for comparison. Besides, the considered group has an indefinite hiatus with the subgenus *Epuraea (Haptoncus)*, because each of the characters regarded as diagnostic for *E. (Haptoncurina)* in the original description (Jelínek, 1977) can be observed in some particular representatives of the firstnamed subgenus. Nevertheless, separation of these groups is probably quite justified, at least until more detailed study. Externally the species of this subgenus resemble the Afro-Madagascarean species of *E. (Parepuraea)*, but differ from them in the smaller body, less smooth and less convex dorsal surface of body, simple tarsal claws, lack of secondary sexual dimorphism in legs, completely different structure of genitalia in both sexes. At the same time *E. (Haptoncurina) facetata* resembles the species from *Taenioncus* and *Taeniolinus* new genus from the Taenioncini new tribe (Epuraeinae) as well as *Nitops (Nitops)* from the Carpophilinae, contrastingly differing from them also in rather small size of body.

Notes: Similar appearance of these groups from several tribes of both subfamilies Epuraeinae and Carpophilinae is, without doubt, rather connected with a similar mode of anthophilous life than close kinship.

Bionomy: Presumably all members of the group under consideration are mainly connected with blossoming trees and bushes in lowland forest and brushwood of different types and cultural plantations and

frequently active during rather long period (some of them the year round). They can have an anthophilous mode of life in both larvae and imagines or at least in imagines, although their larvae can partly feed in rotting inflorescence or fruits.

Composition and distribution: In the present monograph are included *E. (Haptoncurina) facetata*, *E. (H.) gestroi*, *E. (H.) motschulskyi*, *E. (H.) paulula*, *E. (H.) reflexicollis*, and the Indo-Malyan *E. (H.) nigritula* (Grouvelle, 1906), with probable synonyms described from the Seychelles, Réunion and Mauritius given in the key below. This group is recorded mostly from the Indo-Malayan region (including Papuan province), although one of its species is almost cosmopolitan and others at least partly occur in surrounding parts of the Palaearctic, Madagascarean, Polynesian and even Novacaledonian regions. Only *Epuraea (Haptoncurina) liliputana* (Reitter, 1880), **new combination** [=*Haptoncura liliputana*] is not collected beyond Australia and closest insular systems, including New Zealand and New Caledonia. Therefore almost all known species of this group (except for the last mentioned) are included in the key to species (given below).

Key to species of subgenus *Epuraea (Haptoncurina)* from the Indo-Malayan region and adjacent territories

1 a. Body light (straw coloured), comparatively more slender and scarcely shiny (usually dull); dorsal surface with variable punctation and nearly alutaceous interspaces; pronotal sides not explanate or subexplanate, gently outlined at rounded corners 2

1 b. Body dark or, if light, rather shiny and comparatively robust; pronotal sides usually widely explanate 3

2 (1) a. Larger and much wider; distance between eyes much broader than width of both eyes combined; dorsum evenly convex. Male: aedeagus composed of very long sclerites. 1.4-2.6 mm. Figs. 8-10. Territories with subtropical and tropical climate in Asia (including Nepal, Bhutan, North India, Thailand, Vietnam), Africa, Madagas-

car, Seychelles, insular part of Indo-Malayan region (including Papuan province), and also Australian and Polynesian regions .... *E. (H.) motschulskyi* Reitter, 1873

2 (1) b. Smaller and much slender; distance between eyes slightly broader than width of one eye; dorsum strongly convex. 1.2-1.8 mm. Figs. 1-3. Male: aedeagus composed of moderately long sclerites. Vietnam; Malaysia and Indonesia: Kalimantan Philippines; .... *E. (H.) facetata* Kirejtshuk, 1987

3 (1) a. Body dark (brown to blackish) and dull, only prohypomera, epipleura and appendages lighter; elytral apices slightly projecting at suture. 2.0-2.3 mm. Indonesia, Sumatra .... *E. (H.) nigritula* (Grouvelle, 1906)

[**lectotype** *E. (H.) nigritula*, female (MSNG), here designated [„Sumatra, Padang, 1890, E. Modigliani" („*Haptoncus nigritulus*")] and 1 **paralectotype**, female (MSNG) („Bengulen, IV.1891, E. Modigliani"); ?=*picina* (Grouvelle, 1906b: 75) (=*Haptoncus picinus* for *Haptoncus piceus* Alluaud, 1900 (1902): 116, non *Haptoncus piceus* Reitter, 1873: 178; *Haptoncurina picina*: Jelinek, 1977: 383) from Réunion and Mauritius; *E. (H.) obscura* (Grouvelle, 1913d: 15), new synonym (=*Haptoncus obscurus*; *Haptoncurina obscura*: Jelinek, 1977: 383) from Seychelles - 15specimens studied from Seychelles (NHL), Réunion (MRAC) and Zaire (MRAC)with body, including elytral apices more frequently as those in *E. (H.) motschulskyi* - see diagnosis and notes on the latter]

3 (1) b. Body light (reddish) and more or less shiny 4

4 (3) a. Pronotum with unexplanate sides; body more robust and more convex; bright reddish to light brownish; punctation very distinct and strongly dense. 1.7-2.8 mm. Figs. 11-15. Primorsky kray, Japan; Korea; eastern and southern China, including Taiwan (Heilongjiang, Henan, Fujian); ? Bhutan; ? Nepal; ? Sri Lanka; ? eastern Siberia ..... *E. (H.) paulula* Reitter, 1873

4 (3) b. Pronotum with widely explanate sides; body more slender and less convex, usually with more sparse punctation; pale reddish 5

5 (4) a. Body reddish, larger and wider; pronotal sides nearly straight at base and rather curved to fore corners; punctation very distinct and dense. 2.1-2.3 mm. Figs. 16-19. India, including Dehra Dun; Vietnam; Sri Lanka ..... *E. (H.) reflexicollis* Motschulsky, 1863

5 (4) b. Body pale straw coloured, smaller and subquadrangular; pronotal sides usually roundly and similarly narrowed anteriorly and posteriorly; punctation not quite distinct and variable. 1.8-2.3 mm. Figs. 4-7. ? Indo-Malayan (including Papuan province), Polynesian and Novacaledonian regions .. *E. (H.) gestroi* (Grouvelle, 1906)

Epuraea (Haptoncurina) facetata Kirejtshuk, 1987

- Figs. 1-3; Map 1, a

=*Epuraea (Haptoncurina) facetata* Kirejtshuk, 1987a: 63 (Vietnam, Philippines).

Material -
total 99, including holotype (ZMB - Kirejtshuk, 1987a: Philippines, Mindanao) and 2 paratypes (ZISP - Kirejtshuk, 1987a: North Vietnam) -
Malaysia: 3 (CNC) - „Sarawak, Semongok, 12 mi. S. Kuching, 1.I.1975, A Earnshaw";
Indonesia: 6 (FMNH) - „Nunukan I, E. Kalimantan distr., Indon., BORNEO, XII:1953", „R. von Hentig", „blossom of felled tree";
Philippines: 82 (ZMB, SMNS, ZISP) - „N. Luzon, Ifugao, Babaue vic., 20 km N Lagawe, Sekundärwald/Reisfld.", „16°64' N Br/121°06' E L, 22.9-16.10.1988, leg. Cerny & Schintlmeister".

Diagnosis: This species is well characterized by small size, light and very slender body and strongly large eyes (see the above key). These characters are very distinct from those of other representatives

of the subgenus (and genus at all), resembling species from *Taenioncus* and *Taeniolinus* new genus from the Taenioncini new tribe (Epuraeinae) and *Nitops (Nitops)* sensu stricto from the Carpophilinae, differing from them also in rather small size of body. This species has also peculiar labrum medially rather strongly projecting, comparatively large antennal club, punctation on dorsum consisted of small distinct punctures (much smaller than eye facets), contrasting and alutaceous or somewhat smooth interspaces between punctures.

B i o n o m y: This species has a typical anthophagous appearance and been captured in January, February, June, September, October and December in lowland (including secondary) forest.

D i s t r i b u t i o n: The Indochinese and Malaysian provinces: Vietnam, So'n Du'o'ng (Tam Dao), Thanh Ho'a; Philippines, Babuya (northern of Luzon), Mindanao (Butuan: type-locality); Malaysia (Sarawak) and Indonesia: Kalimantan (Semongok), Nunukan.

Epuraea (Haptoncurina) gestroi (Grouvelle, 1906)

Figs. 4-7

=*Haptoncus Gestroi* Grouvelle, 1906a: 321 (New Guinea); Grouvelle, 1913a: 96; Gillogly, 1982: 290; *Haptoncus levigatus* Gillogly, 1982: 284 (partim) (New Caledonia); *Epuraea (Haptoncurina) gestroi*: Kirejtshuk, 1987a: 65.
Questionalable references: *Haptoncus levigatus* Gillogly, 1982: 284 (partim) [Kalimantan, Sabah), Philippines, Solomon Islands, Fiji, American Samoa, Society Islands].

M a t e r i a l -
total 49, including lectotype (MSNG) and 2 paralectotypes (MSNG) of *E. (H.) gestroi*, 4 paratypes (BPBM) of „*Haptoncus levigatus*" -
Indonesia: 1 (FMC) - „Nunukan I., E Kalimantan Distr., Indon., BORNEO, XII-53", „Col. by R. von Hentig";
New Guinea: **lectotype** *E. (H.) gestroi*, male (MSNG), here designated and 2 **paralectotypes** (MSNG) - „N. Guinea Mer., Kapakapa, Mag. Giugno, 1891, L. Loria; 1 (TMB) - „Birò 96, Friedrich Wilh-hofen";
Polynesia: 1 (USNM) - „Marquesas Isls, Hiva Oa, Atuona, 13 Feb.1968", „J.F.G. Clarke, Telma M. Clarke"; 1 (ZISP) - „Marquesas Isls, Nuku Hiva, Taiohae, 15 Jan.1968", „J.F.G. Clarke, Telma M. Clarke"; 1 (USNM) - „Tonga Nukùalof", „Tongataou, III-1966, N.L.H. Krauss"; 12 (ZMUC, ZISP) - „Tonga, Vavau I., I.1980, N.L.H. Krauss"; 19 (ZMUC, ZISP) - „Cook Is., Rarotonga, XI.1977, N.L.H. Krauss"; 6 (ZMUC, ZISP) - „Niue Island, Alofi, 0-100 m, XII.1979, N.H.L. Krauss";
New Caledonia: 4 **paratypes** „*Haptoncus levigatus*" (BPBM) - „Noumea, June 24, 1945, H.E. Milliron".

D i a g n o s i s: Outwardly this species has partly an intermediate position showing some resemblance to *E. (Haptoncurina) motschulskyi* and closely related species on the one hand, and to characteristic members of the subgenus *E. (Haptoncus)* sensu stricto [for example, *E. (H.) fallax*], on the other. This species has a flattened pronotum and eyes shaped as those in *E. (H.) motschulskyi* and with rather large eye facets, although its aedeagal structures are somewhat shorter and partly similar to those in the species of *E. (Haptoncus)* sensu stricto. At the same time, *E. (Haptoncurina) gestroi* is similar to *E. (Haptoncurina) liliputana*, new combination from the Australian and Novacaledonian regions, but somewhat different from the latter in its not so light coloration, less slender body and transverse elytral apices.

Externally *E. (Haptoncurina) gestroi* can be distinguished from *E. (Haptoncus) fallax* determined as *E. (H.)* aff. *gestroi* by flattened pronotum and more widely explanate pronotal and elytral sides as well as comparative length of aedeagus. In some cases it is difficult to recognize even males of both species, but almost impossible to separate females of them. At the same time a problem of segregation of the forms here treated as *E. (Haptoncurina) gestroi*, *E. (Haptoncurina) reflexicollis* and their connection with *E. (Haptoncus) fallax* is still to be resolved.

N o t e s: The studied paratypes of *Haptoncus levigatus* are completely conspecific with other specimens of *E. (H.) gestroi*, although it requi-

res a further study of the holotype (BPBM) of the Gillogly's „species" to establish a reliable synonymy of these names.

As this species in some cases is difficult to separate it from others of subgenera *E. (Haptoncurina)* and *E. (Haptoncus)*, the above records, perhaps, should be retested, when a new diagnostic character is found. It can be expected that the specimens from Indonesia mentioned above, as well as partly those here named as *E. (Haptoncurina)* aff. *gestroi*, belong to different species [if not aberrant form of *E. (Haptoncus) fallax*], while the specimens from New Guinea, Polynesia and New Caledonia are true *E. (Haptoncurina) gestroi*.

Bionomy: This species has been collected in January, February, March, June, October, December in lowland rainforest.

Distribution: This species is surely recorded beyond the territory under consideration, namely from the Papuan province: New Guinea, Kapakapa (type-locality), „Birò"; and also Polynesian region: Marquesas Islands, Hiva, Nuku Hiva; Tonga, Nukúalof (Tongataou), Vavau Island; Cook Islands, Rarotonga, Niue Island (Alofi); Novacaledonian region: Noumea. Questional records: ? Indo-Malayan region: Kalimantan, Nunukan.

Epuraea (Haptoncurina) aff. *gestroi*

Material -
total 42 -
India: 1 (USNM) - „New Delhi", „9.X.1967, K.E. Gibson, light trap"; 11 (NMW, ZISP) - „Karnataka, Mysore, 29.9.1991, R. Schuh";
Thailand: 1 (MHNG) - „Chiang Mai, Doi Suthep, 1150 m, Site B Fac.-Agr., 4.XI.1985, Burckhardt-Löbl"; 2 (SMNS, ZISP) - „10-13.1.1993, 19.27N 98.20E, Soppong, 1550 m, L. Bocák";
Taiwan (China): 8 (USNM) - „Takao, Formosa, Sauter" (determinated by J. Jelínek as *H. gestroi*);
Philippines: 3 (USNM, ZISP) - „Los Banos, Baker" (named by A. Grouvelle as *Haptoncus liliputanus*); 8 (USNM) - „Manila, 885, P.I.",

„C.S. Banks Collector"; 2 (USNM) - „Acc. N 4107, Bur of Plant Industry", „Buenavista Agusan, F.Q. Otanos, April, 1937"; 2 (USNM, ZISP) - „Agr. College, Laguna, 200', V-1-1932", „on cotton flowers", „F.C. Hadden".

Notes: Perhaps, some references to „*Epuraea* or *Haptoncus reflexicollis*" concern this form which looks like an intermediate between *E. (Haptoncurina) motschulskyi* and *E. (H.) gestroi*: see notes on the preceding species. It seems reasonable to interpret the series mentioned above under the name *E. (H.)* aff. *gestroi* in spite of the characters of their appearance as an aberrant form of *E. (Haptoncus) fallax*, which, in contrast to apparantly true *E. (Haptoncurina) gestroi* from Papuan Province, Novocaledonian and Polynesian regions, have more convex pronotum and elytra. It is also possible that the holotype of *Haptoncus levigatus* indeed belongs to either true *E. (Haptoncurina) gestroi* or this aberrant or intermediate form.

Bionomy: This form has been collected in January and within September-December.

Distribution: This form is recorded from the Indo-Malayan region: India, New Dehli, Karnataka (Mysore); Thailand, Soppong, Chiang Mai (Doi Suthep); China, Taiwan („Takao"); Philippines, Luzon, Los Banos, Panau.

Epuraea (Haptoncurina) motschulskyi (Reitter, 1873)

Figs. 8-10

=*Epuraea angustula* Motschulsky, 1863: 439 (Ceylon, Colombo), not *Epuraea angustula* Sturm 1844: 74; ? *Epuraea opaca* Motschulsky, 1863: 440 (Ceylon, Colombo), non *Haptoncura opaca* Grouvelle, 1897; *Epuraea Motschulskii* Reitter, 1873: 29; Sjöberg, 1939: 109 (Ceylon, China); *Haptoncus insularis* Grouvelle, 1906a: 319 (Timor-Deli); Grouvelle, 1913a: 96; Gillogly, 1962: 175 (also Micronesia); new synonym; *Haptoncus Motschulskyi*: Grouvelle, 1908: 344; Grouvelle, 1913a: 97; Grouvelle, 1914b: 41 (Taiwan); Gillogly, 1982: 288; *Epuraea Weisei*

Grouvelle, 1909: 132 (Usambara); *Haptoncus dispersus*: Gillogly, 1969: 248 (Philippines); *Haptoncurina motschulskii*: Jelínek, 1977: 381 (Guinea, Sierra Leone, Nigeria, Cameroon, Zaire, Rwanda, Burundi, Sudan, Tanzania, Zambia, South Africa, Madagascar; study of presumable syntypes of *Epuraea weisei* - DEl and notes on synonymy); Hisamatsu, 1985: 180 (also Japan); *Haptoncurina motschulskyi*: Audisio, 1982: 107; *Epuraea motschulskii*: Jelínek, 1978: 172 (Bhutan, Nepal, China, Japan, Indo-Malayan Region); *Haptoncus rhombotelus* Gillogly, 1982: 286 (Malaysia, Sabah; Philippines; holotype - BPBM from Luzon), new synonym; *Epuraea (Haptoncurina) motschulskyi*: Kirejtshuk, 1987a: 65; Kirejtshuk, 1992: 121 (Japan, China, Tropics of Asia, Africa, Madagascar, Australia and Pacific insular systems); Jelínek, 1992: 411; Kirejtshuk & Pakaluk, 1996: 339 (delivery to USA from Asia); *Epuraea (Haptoncurina) motschulskii*: Kirejtshuk, 1996b: 24 (also Namibia, Togo, Ethiopie, Kenya, Uganda, Rwanda, Tanzania, Mali).

M a t e r i a l -
total more than 2 000, including lectotype (ZISP) and 2 paralectotypes (ZISP) of *E. angustula* Motschulsky, non Sturm; lectotype (MSNG) and 3 paralectotypes (MSNG) of *E. (H.) insularis*; 1 paratypes (BPBM) of „*Haptoncus luzonensis*" and 1 paratype (BPBM) of „*H. rhombotelus*" -
India: 6 (ZSI, ZISP) - „U.P., Basti, 27.12.79, Flower"; 1 (TMB) - „W Bengal, Darjeeling Distr., Debrapani, 1700 m, mosses on trees of indigenous forest, 30.V.1980, Gy. Topál"; 1 (BMNH) - „Tanakpur, Kumaon, U.P., H.G.C.", „in flowers *Randia foliolosa*", „H.G. Champion"; 2 (MMUE) - „North India, leg. Evans"; 1 (ZMUC) - „Galatea, Bengala";
Thailand: 4 (SMNS, ZISP) - „28/6.93, 14.01N 99.31E, Kanchanaburi, 50 m, Vit Kubán"; 2 (SMNS) - „Changwat Chiang Mai, Chiang Mai, 24-25.1.1989, 250 m, Trautner & Geigenmüller" (18.12.1988); 1 (SMNS) - „10-13.1.1993, 19.27N 98.20E, Soppong, 1550 m, L. Bocák lgt."; 2 (MMUE) - „22.5.74, Chiang Mai, R.A. Beaver, Light"; 4 (SMNS, ZISP) - „Lom Sak, 40 km N Phetchabun, ca. 120 m, August 1987, W. Thielen"; 2 (TMB) - „Erawan N.P., Erawan Guest Hause", „at light, 14.II.1994, S. & L. Mahunka";
Vietnam: 46 (ZISP) - „Khr. Tam Dao, Son Duong, dolinnoye nizkogorie, 22.II.1962, O. Kabakov"; 4 (ZISP) - „gory (mountains) 60 km NW

Vinh linh, 18.III,1963, O. Kabakov"; 2 (ZISP) - „gory (mountains) W Muong Xèn, 600 m, 6.X.1962, O.Kabakov"; 1 (TMB) - „Tuong linh, near Phu ly, 24-28.V.1966, Gy. Topál, from blossoming *Pandanus*";
Sri Lanka: **lectotype** *E. (H.) motschulskyi*, male (ZISP), here designated (designated in collection by J. Jelínek) and 2 **paralectotypes** (ZISP) - „*Epuraea angustula* Motsch., Ceylon", „c. Motschulsky";
China: 2 (SMF, ZISP) - „Kuatun, Fukien, 10.8.46 (Tschung Sen)"; some (MNW) from Sichuan („Suifu, Szechen"), Chekiang („Hangchou");
Malaysia: 1 (SMNS) - „Fraser's Hill, 17.4.1989, A. Riedel"; 1 (TMB) - „Pahang, Pulau Tioman, Kampung Juare", „at light in the village, 7-9.III.1995, O. Merkl";
Philippines: 1 **paratype** „*Haptoncus rhombotelus*", male (BPBM) - „Negros or., Dumaguete, 330 m, 26.VI.1958", „Light trap, H.E. Milliron"; 1 **paratype** „*Haptoncus luzonensis*", male (BPBM) - „20 mi. SW of Raguto, Luzon, Oct., 6, 1915, H.E. Milliron"; 1 (SMNS) - „Leyte, Visca, N Baybay, cultiv. land., 1991, Schawaller et al.", „28.2.91"; 1 (ZMB) - „Mindanao, Buge as eye facets, interspace 15";
Indonesia: **lectotype** *E. (H.) insularis*, male (MSNG), here designated and 3 **paralectotypes** (MSNG) - „Timor-Deli, Marro, 1872, D'Albertis"; and many specimens from different tropical and subtropical parts of the Eastern Hemisphere and also some hundreds (BMNH, CNC, FMNH, MAK, MMUE, MSNG, NMW, NRS, SMNS, TMB, ZISP, ZMB, ZMUC, ZSI, ZSM) from Korea, South Eastern China, South India, Indochina and islands of the Indo-Malayan region, including specimens determined by Jelínek (1978) from Bhutan and the specimens from Philippines named by Gillogly (1969) as „*Haptoncus dispesus*".

D i a g n o s i s: This species is distinguished by almost dull dorsal surface, often rather flattened and subquadrangular pronotum (with almost rectilinear sides), elytra 2.5 times longer than pronotum and with transversely truncate apices. It somewhat resembles *E. (Haptoncurina) facetata*, differing from it by larger and wider body, more flattened dorsum (especially pronotum) and smaller eyes.

V a r i a t i o n s: This species is extremely variable in body size, punctation and sculpture of surface, and other structures, including ge-

nitalia. The larger specimens have acute and rather prominent subapical corners of all tibiae. However, transversely truncate fore and hind edges of pronotum, elytral apices, proportions of eyes, sharply abrupt apex of penis trunk and the characters mentioned in the above key well characterize this species.

Notes: The synonymy of *E. (H.) motschulskyi* and *E. (H.) insularis* is quite evident because of complete correspondence between characters of the type specimens of the latter to typical *E. (H.) motschulskyi*, except for a little difference in coloration. The studied paratypes of „*Haptoncus rhombotelus*" and „*H. luzonensis*" are conspecific with other specimens of *E. (H.) motschulskyi*, however, if the original description of the first is correspondent to the paratype, that of the second is partly different and therefore to establish a reliable synonymy it requires a further study of the holotype of „*Haptoncus luzonensis*". The type series of „*Epuraea opaca*" Motschulsky, 1863, not Grouvelle, 1897 remains unstudied, but according to the short original description of it this name can presumably treated as a possible synonym.

The author had an opportunity to have a look (without a detailed consideration) at the specimen „*Haptoncus obscurus*" in the collection BMNH which is rather dark and as densely and contrastingly microreticulated as typical *E. (Haptoncurina) motschulskyi*, but body shape of this specimen is as that of *E. (Haptoncus) fallax*. Finally, the specimen „*Haptoncus picinus*" from Seychelles which most likely is a darkened extreme of *E. (H.) motschulskyi* has been seen in the same collection [see also *E. (Haptoncurina) nigritula* in the above key].

Bionomy: This species is mainly associated with flowers and fruits (largely fruticous and arboreous) in different types of forest, brushwood and cultural plantations, although its imagines can visit different types of decaying plant substrates. This species not infrequently live in artificial conditions and can be easily imported by man. Imagines have been collected during the year round.

Distribution: This species has nearly a panpaleotropical range, including the

- Indo-Malayan region: India, Uttar Pradesh, Darjeeling, West Bengal; Nepal; Bhutan; Thailand, Kanchanaburi, wat (Chiang Mai), Soppong, Lom Sak (Phetchabun), Erawan National Park; Vietnam, So'n Du'o'ng, Vihn Linh, Muong Xèn, Tuong linh (near Phu ly); Sri Lanka, Colombo [type-locality of *E. (H.) motschulskyi* and ? „*Epuraea opaca*" Motschulsky, 1863, not Grouvelle, 1897]; China, Fujian, Sichuan; Malaysia, Fraser's Hill, Pahang, (Pulau Tioman), Sabah; Philippines, Tawitawi islands, Luzon and Negros [Baguio: type locality of „*Haptoncus rhombotelus*" and Laguna: type locality of „*Haptoncus luzonensis*"], Leyte, Mindanao; throughout in Indonesia, including Timor-Deli [type-locality of *E. (H.) insularis*] and Papua New Guinea;
- Palaearctic region: Afganistan, eastern and east northern continental China and Taiwan, Korea and Japan;
- Afrotropical region: Senegal, Gambia, Mali, Guinea, Sierra Leone, Liberia, Togo, Nigeria, Gabon, Cameroon, Zaire, Sudan, Ethiopie, Kenya, Uganda, Rwanda, Burundi, Tanzania [including Usambara: type locality of *E. (H.) weisei*], Angola, Namibia, Zambia;
- Capean region: Republic of South Africa;
- Madagascarean region: Madagascar, Seychelles
- Polynesian region: Micronesia, Caroline islands;
- Australian region: North Territory, Queensland.

This species was delivered to USA, including Alaska from Asia.

Epuraea (Haptoncurina) paulula (Reitter, 1873)

Figs. 11-15

=*Epuraea paulula* Reitter, 1873: 26, 36 (Japan); Reitter, 1884a: 261; Grouvelle, 1913a: 121; Grouvelle, 1914b: 41 (Taiwan); Reitter, 1919: 97 (also Amur); Sjöberg, 1939: 109 (also China, East Siberia); *Epuraea (Epuraea) paulula*: Nakane, 1959: 57; Hayashi, 1978: 14, 33; Nakane, 1984: 615; Hisamatsu, 1985: 180; Jelinek, 1978: 172 (Bhutan, Nepal, China, Japan, Eastern Siberia, Sri Lanka); *Haptoncurina paulula*: Hisamatsu, 1985: 180 (also Japan, Taiwan); *Epuraea (Haptoncurina) paulula*: Kirejtshuk, 1992: 121 (also Primorsky kray, Korea). Questionable references: Reitter, 1919: 97 (Amur); Sjöberg, 1939: 109 (East Siberia); Jelinek, 1978: 172 (Bhutan, Nepal, ? Sri Lanka).

Material -
total 38, including 4 syntypes (MNHN, TMB) -
Japan: 4 **syntypes**, females (MNHN, TMB) - „*paulula*", „Japan", „Coll. Reitter"; 6 ? **syntypes** (ZMB, ZISP) - „Japan, Coll. Hiller", „*Epuraea paulula* Rtt." (determinated by E. Reitter);
China: 19 (ZISP) - „Foochow, Kushan, 12.VI.1958, M.S. Yang"; 1 (BMNH) - „from Madinna Lily", „Hsin Kai SSU, 4000 ft, foothill of MYOmes", „Pres. by Mrs. Richardson".

Diagnosis: In addition to the characters in the above key, this species is the widest and most convex among the members of the subgenus, rather large and comparatively dark (bright reddish to light brownish) and with coarser, rather dense and distinct dorsal punctation.

Notes: This species was described according to the specimens collected by G. Lewis and therefore it would be more reasonable to designate the lectotype for this name among the specimens in the London museum, although the studied specimens from Paris and Budapest very likely belong to the same series.

Jelínek (1978) recorded it from Bhutan and Nepal, although it has not been refound among the specimens studied for the present work. Moreover, although this species was first recorded from Eastern Siberia by Sjöberg (1939), I could not find this species also among specimens from there while I was looking through thousands of Nitidulids before preparing my „Identification manual to insects from Far East of the USSR". However, this species is to be expected on the territory of the Russian Far East, but perhaps only in the southern part of Primorsky kray, southern Saghalin and Kurile insular system: some specimens of true *E. (H.) paulula* from Northern Korea have been studied by the author. The Himalayan part of its range seems to be questionable as well.

Bionomy: The larval development of *E. (H.) paulula* has been recorded on decaying flowers of *Stephanandra incisa* and *Rosa multiflora* (Hayashi, 1978), but the imagines can visit even herbaceous flowers. This species occurs during spring and early summer.

Distribution: The range of this species is most likely restricted by Primorsky kray; Japan [from Hokaido to Ryukyu; type locality has not been indicated in the both original description and studied specimens]; Korea; China (Heilongjiang or Henan, Fujian, Taiwan). However, it has been probably misinterpreted from other parts of the Russian Far East, Siberia, Bhutan, Nepal and Sri Lanka.

Epuraea (Haptoncurina) reflexicollis Motschulsky, 1863, **new combination**

Figs. 16-19; Map 2, a

=*Epuraea reflexicollis* Motschulsky, 1863: 438 (Ceylon, Colombo); *Haptoncus reflexicollis*: Reitter, 1873: 27; Reitter, 1877b: 189; Grouvelle, 1908: 344, 346 (also ? Nilgiri Hills); Grouvelle, 1913a: 98; Hisamatsu, 1956: 52 (Japan); *Haptoncura reflexicollis*: Reitter, 1884a: 260 (Japan); Grouvelle, 1900: 263 (Sumatra); *Epuraea (? Haptoncus) reflexicollis*: Kirejtshuk, 1987a: 65 (lectotype designation). Questionable references: Reitter, 1884a: 260 (Japan); Hisamatsu, 1956: 52 (Japan).

Material -
total 18, including lectotype (ZMMU - Kirejtshuk, 1987a) and 1 paralectotype (ZMMU - Kirejtshuk, 1987a) -
India: 8 (BMNH, ZISP) - „Mothronwala, Dehra Dun, H.G.C.", „H.G. Champion Coll.", „flowers of *Aedychtium*"; 3 (NMW, ZISP) - „Karnataka, Mysore, 29.9.1991, R. Schuh"; 1 (ZMUC) - „Bengala, Galatea";
Vietnam: 4 (ZISP) - "40 km SW Thanh Hoa, Ben En Nat. Park, 12-24. 8. 1997, h=50 m, A. Napolov";
Sri Lanka: **lectotype**, male (ZMMU) and 1 **paralectotype**, female (ZMMU) (designated by Kirejtshuk, 1987a) - „*Epuraea reflexicollis* Motsch., Ind. or., Ceyl., Mt. N."

Addition to description (Motschulsky, 1863): Length 2.1-2.3, breadth 1.0-1.1, height 0.6 mm. Moderately convex from above and below; bright reddish; rather shiny; dorsum with fine subrecumbent hairs twice longer than the distance between their insertions. Head and pronotal surface with more or less distinct punctures nearly as lar-

ge as eye facets, interspaces between them about half a puncture in diameter, smoothed or with a trace of very dense and fine microreticulation. Elytral surface with usually much smaller, sparser and shallow punctures, wide intervals between them rather alutaceous. Pronotum with comparatively widely explanate sides, and elytra with moderately explanate ones.

Diagnosis: This species is rather similar to *E. (H.) motschulskyi*, but differs from the latter in much wider and shiny body, more flattened and smooth dorsal surface with dense and distinct punctures, more widely explanate pronotal and elytral sides. Moreover, the aedeagus of *E. (H.) reflexicollis* consists of shorter sclerites than those in the second species. On the other hand, this species has some resemblance to *E. (H.) paulula* in its robust body and bright coloration, but *E. (H.) reflexicollis* differs from this species only in widely explanate pronotal sides. Therefore it is thought that Jelínek's record of *E. (H.) paulula* might be the result of confusion with *E. (H.) reflexicollis*. Finally, this species is partly similar to *E. (H.) gestroi* but with much larger and wider body and shorter aedeagus. In particular three studied specimens from Karnataka have an intermediate appearance between *E. (H.) reflexicollis* and *E. (H.) gestroi*, although a somewhat larger body and a more or less dense punctation allow the author to incline to the present identification.

Notes: Probably some references by E. Reitter, A. Grouvelle and S. Hisamatsu can deal with a different species.

Bionomy: The available specimens give no information on biological features of this species, except capture in September and on flowers of *Aedychtium*.

Distribution: This species is rather rare and has few reliable records only from southern parts of the Indo-Malayan region: India, Uttar Pradesh, Karnataka, Tamil Nadu (Nilgiri Hills), West Bengal; Vietnam, Thanh Ho'a; Sri Lanka, Colombo (type locality): Indonesia, Sumatra (Painan). The references to Japan mentioned above are rather doubtful and need further confirmation. The Grouvelle's reference to Sumatra (1900) should be confirmed as well.

II. Subgenus *Epuraea (Haptoncus)* Murray, 1864

=*Haptoncus* Murray, 1864: 401; Reitter, 1884a: 258; Sharp, 1890: 305; Sharp, 1908: 435; Grouvelle, 1908: 340, 343; Grouvelle, 1913a: 96; Gillogly, 1962: 168; Jelínek, 1977: 393; Hayashi, 1978: 15, 33-34 (larvae); Gillogly, 1982: 282. Type-species: *Haptoncus tetragonus* Murray, 1864 (designation by Parsons, 1943: 183).
=*Haptoncura* Reitter, 1875: 61, 64. Type-species: *Epuraea luteola* Erichson, 1843 (designation by Parsons, 1943: 183).
=*Epuraea (Haptoncus)*: Kirejtshuk, 1989b: 64, 68; Kirejtshuk, 1992: 121; Kirejtshuk, 1996b: 24; Kirejtshuk, Pakaluk, 1996 139.

Diagnosis: The subgenus is very similar to the previous subgenus, differing from it by the peculiarities mentioned in the above key to genera and subgenera. Last maxillary palpomere distinctly transverse, usually widened to apex. Like *E. (Haptoncurina)*, this group is characterized by rather simple structure in comparatively small, oval and more or less flattened body; large eyes composed of rather large facets; usually lacking secondary sexual characters in mouth parts, legs and elytra; weakly sclerotized and uniform configurations of sclerites in genitalia of both sexes. Many characters are rather variable among conspecific specimens, making difficulties in identification of species without synoptic specimens for comparison. Nevertheless, in contrast to members of *E. (Haptoncurina)*, the species of *E. (Haptoncus)* have more oval and more vaulted body, with comparatively smaller eyes.

Notes: The synonymy of *Haptoncus* and *Haptoncura* was established by Grouvelle (see Grouvelle, 1913a) because the type-species of the both are clearly related forms.

Bionomy: Many species of this subgenus are rather common representatives of tropical and subtropical faunas and connected with lowland forest of different types and cultural plantations, often exposing imaginal activity nearly the year round. Most members of *E. (Haptoncus)* are associated with decaying fruits and other decomposing plant substrates, although many imagines being frequent visitors to flowers of

trees and bushes. Some species seem to have more intimate and obligatory connections with flowers (including larval development).

Composition and distribution: The subgenus *E. (Haptoncus)* has a pantropical distribution, coming into both southern and northern areas of other regions with subtropical climate, but the Western Hemisphere was initialy inhabited by the only representative of the subgenus [*E. (H.) luteola*].

Unfortunately, this subgenus is very difficult to study and a lot needs to be done in order to approach a comprehensive knowledge about its composition. Nevertheless, apart from the species included in this monograph (see below - key to species), there are published also *E. (H.) boettcheri* Kirejtshuk, 1989b from the Indo-Malayan region (Philippines) and beyond it *E. (H.) attenuata* Gillogly, 1962 (Micronesia); *E. (H.) literata* Reitter, 1880b (New Guinea and Australia); *E. (H.) nubilis* Grouvelle, 1913b (tropical Africa and Madagascar, recorded arrival at USA - Kirejtshuk, Pakaluk, 1996); *E. (H.) ovalis* Murray, 1864 (New Guinea, ? Western Samoa); *E. (H.) takhtajani* G. Medvedev et Ter-Minasyan, 1973 (Fiji, ? Philippines, ? New Hebrides, ? Western Samoa) and *E. (H.) valga* Gillogly, 1982 (Micronesia). Besides, there are the following unclear species names (incertae sedis): „*Haptoncus bakeri*" Grouvelle, 1914a (Philippines); „*Haptoncus brunneus*" Gillogly, 1982, not *Epuraea brunnea* Wiedemann, 1825 (New Hebrides, Fiji, Western Samoa, New Caledonia); „*Haptoncus flavidus*" (Fairmaire, 1849) (described as *Carpophilus* from Tahiti); „*Haptoncus levigatus*" Gillogly, 1982 (Borneo, Solomon Islands, Samoa); „*Haptoncus luzonensis*" Gillogly, 1982 (Borneo, ? Philippines, Solomon islands, New Caledonia); „*Haptoncus prolatus*" Grouvelle, 1897 (Sumatra); „*Haptoncus sobrinus*" Grouvelle, 1894 (described as *Haptoncurina* and recorded from Seychelles, Réunion, Madagascar, ? Micronesia); *E. (Haptoncus) upoluensis* Arrow, 1927 (Samoa) and „*Haptoncus rhombotelus*" Gillogly, 1982 (Borneo, Philippines). Some species names are definitely synonyms, which should be additionally revised: „*Haptoncus dispersus*" Grouvelle, 1906d (Tropical Africa, Madagascar, ? Micronesia) and *E. (H.) sordidus* Grouvelle, 1906a (New Guinea). Finally, other names of species proposed by Gillogly (1982) with the generic name

„*Haptoncus*" should be regarded as composing different taxa [partly among *E. (Haptoncurina)* (see above), *E. (Micruria)* or *Tetrisus (Trimenus)* (see below) and partly among some unrevised groups distributed farther south and eastern from the territory considered in this monograph].

Key to species of subgenus *Epuraea (Haptoncus)* from the Himalayas and northern Indochina

1 a. Body smaller (1.3-1.6 mm) and subquadrangular with narrowly explanate or almost unexplanate pronotal and elytral sides; pronotum widest at base; head with temples scarcely reaching behind eyes; elytra transversely truncate; dorsum with distinct punctation, smooth interspaces between them, fine and moderately conspicuous pubescence; completely unicoloured pale straw, except for darkened eyes. Male: hind femur and tibia simple. Figs. 65-69. South Vietnam ..... *E. (H.) morbosa* **new species**

1 b. Combination of characters different; body usually longer than 1.5 mm [although *E. (H.) concolor* can be as large as *E. (H.) morbosa* new species, but with widely explanate pronotal and elytral sides and pronotum somewhat narrowed at hind corners; head with temples more or less wedged behind eyes or not infrequently extended beyond outer edge of eyes] or, if body subquadrangular with pronotal and elytral sides subexplanate or almost subexplanate, interspaces between punctures more or less alutaceous or microreticulated, head with temples usually extended beyond outer edge of eyes, dorsal pubescence rather conspicuous and male hind femur and tibia modified [see below: *E. (H.) luteola*] 2

2 (1) a. Pronotal and elytral sides widely explanate (at least half as wide as antennal club) 3

2 (1) b. Pronotal and elytral sides very narrowly explanate or subexplanate 4

3 (2) **a**. Body more subquadrangular; pronotum widest at basal third, usually somewhat narrowed to the base, much less than twice as wide as long; elytral apices subtruncate; temples not infrequently extended or almost extended beyond outer edge of eyes; coloration straw reddish or sometimes somewhat darker. 1.3-2.2 mm. Figs. 20-27. Tropics of East Hemisphere, including Pakistan, Punjab; India, Uttar Pradesh and southern parts; Nepal; Myanmar (Burma); Thailand; Laos; Vietnam ..... *E. (H.) concolor* Murray, 1864

3 (2) **b**. Body more oval; pronotum widest at base, at least twice as wide as long and gradually narrowed to apex; elytra subtruncate or longest at suture with apices gently rounded; temples usually not extended beyond outer edge of eyes; coloration as in preceding species. 2.2-2.7 mm. Figs. 28-33. Thailand; Vietnam; Indonesia, Sumatra ..... *E. (H.) dubia* (Grouvelle, 1897)

4 (2) **a**. Fore edge of pronotum shallowly arcuately emarginate or subtruncate; temples never extended beyond outer edge of eyes; body frequently comparatively more convex and smaller; elytra subtruncate to slightly rounded with greatest length at suture; coloration as in preceding species. 1.3-2.3 mm. Figs. 34-41. Mainly in the Indo-Malayan region with Papuan province, including North India; Thailand and Vietnam; also in Palaearctic Far East (including Russian Far East) and North of Australia ..... *E. (H.) fallax* (Grouvelle, 1897)

4 (2) b. Fore edge of pronotum with a more or less distinct trapezium-like emargination; temples usually extended beyond outer edge of eyes (only in *E. (H.) pygidioacuta* new species they not extended); body comparatively less convex and larger (1.7-3.3 mm); elytral apices subtruncate, always forming an obtuse sutural angle 5

5 (4) **a**. Body more slender; dorsum with very contrasting and sparse subrecumbent golden hairs, not longer than distance between their insertions; temples not extended beyond outer edge of eyes; pronotum subtrapezoidal and rather narrowed at hind corners; elytral sides gently sloping; antennal club about twice as long as wide. Male: anal sclerite with angular apex. Female: pygidium transversely truncate at apex and with a sharp medial spine, slightly deviating dorsally. Figs. 601-609. Malaysia, Malacca peninsula and ? Kalimantan ..... *E. (H.) pygidioacuta* **new species**

5 (4) **b**. Body less slender; pubescence scarcely conspicuous and comprising of rather dense recumbent greyish yellow hairs, clearly longer than distance between their insertions; pronotum not or slightly narrowed at hind corners; antennal club less elongate. Male: anal sclerite with widely rounded apex. Female: pygidium with more or less rounded apex 6

6 (5) a. Body nearly dull and usually conspicuously pubescent; pronotal and elytral sides subexplanate or very narrowly explanate; pronotum with subparallel sides at base; elytral sides moderately or steeply sloping; hind femur with almost straight hind edge. Male: hind tibia curved and somewhat dilated in middle. 1.7-2-7 mm. Figs. 46-50. Pantropical, including Pakistan, Nepal, North India, Thailand, Laos, Vietnam ..... *E. (H.) luteola* Erichson, 1843

6 (5) b. Body more shiny and frequently less conspicuously pubescent; pronotal and elytral sides distinctly and moderately narrowly explanate; pronotum with gently rounded sides, more or less narrowed to base; elytral sides gently sloping; hind femur with more rounded hind edge. Male: hind tibia straight and narrow 7

7 (6) a. Body more oval, with rather rounded sides of pronotum and elytra; body unicoloured reddish. Female: pygidium with subacute or narrowly rounded apex. 2.3-3.3 mm. Figs. 42-45. Vietnam; Malaysia, Pahang, Kalimantan; Indonesia, Java; Philippines, Luzon, Negros, Mindanao ..... *E. (H.) fanuli* Gillogly, 1982

7 (6) a. Body subquadrate, with slightly rounded sides of pronotum and elytra; body straw coloured to brownish, in most cases with distinct pigmented spots on elytra and not infrequently on pronotum. Female: pygidium with widely rounded apex. 1.8-3.1 mm. Figs. 53-

56. Tropical regions of the Eastern Hemisphere, including Nepal, North India, Thailand, Laos, Vietnam ..... *E. (H.) ocularis* Fairmaire, 1849

Epuraea (Haptoncus) concolor Murray, 1864, **new combination**

Figs. 20-27

=*Haptoncus concolor* Murray, 1864: 402 (New Guinea); Grouvelle, 1908: 344, 346 (also India); Grouvelle, 1913a: 96; Hisamatsu, 1985: 180 (Japan, southern Asia, Madagascar); *Epuraea mellitula* Reitter, 1873: 27, 40 (Mulmein), new synonym; *Epuraea minuta* Reitter, 1873: 27, 40 (Java), new synonym, non *Epuraea minuta* Mäklin, 1880: 85; *Haptoncura minuta*: Reitter, 1875a: 62 (sep. 12); *Haptoncus mundus* Sharp, 1878: 139 (Hawaii); Sharp, 1908: 508; Grouvelle, 1913a: 97; Kirejtshuk, 1992: 123 (synonymy); *Haptoncura nitescens* Grouvelle, 1897: 362 (Sumatra); ? *Haptoncura minuscula*: Grouvelle, 1900: 263 (Sumatra); *Haptoncus minutus*: Grouvelle, 1905: 242 (Equatorial Guinea); Grouvelle, 1906d: 73, 75; Grouvelle, 1908: 344, 346 (Ceylon, „Cochinchina, Indes orientalis"); Grouvelle, 1913a: 97 (Indo-Malayan region, Madagascar); Gillogly, 1962: 176 (Sumatra, Java, Madagascar, Micronesia); Gillogly, 1982: 289; Audisio, 1982: 107; *Haptoncus nitescens*: Grouvelle, 1906b: 73; Grouvelle, 1913a: 97 (synonymy); *Haptoncus mellitulus*: Grouvelle, 1913a: 97; *Epuraea perminuta* Reitter, 1919: 67; *Haptoncus uenoi* Nakane, 1959: 56 (Japan); Kirejtshuk, 1992: 123 (synonymy); *Epuraea (Haptoncus) mellitula*: Kirejtshuk, 1992: 123 (also Korea, south eastern China, Hawaii, tropics of the Eastern Hemisphere; synonymy).

Material -

total more than 1 500, including lectotype (BMNH) and paralectotypes (BMNH) of *E. (H.) concolor*, lectotype (NMW) of *E. (H.) minuta* Reiter, non Mäklin, lectotype (NMW) of *E. (H.) mellitula*, lectotype (BMNH) and 3 paralectotypes (BMNH) of *E. (H.) munda*, lectotype (MSNG) and 4 paralectotypes (MSNG) of *E. (H.) nitescens*, holotype *E. (H.) uenoi* (collection of T. Nakane) -

Nepal: 4 (BPBM, ZISP) - „Pokhara, 910 m, 18-27.IX.65", „L.W. Quate Collector"; 5 (CNC) - „nr. Birganj Lothar, 450 ft, 10-12.IX.1967, Can. Nepal Exped.";

Pakistan: 6 (BMNH) - „Baijanath, Kangra, Punjab, 3300 ft, H.G.C.", „H.G. Champion";

India: 1 (NMB) - „Gangani, 1250 m, 13-20.6.1981", „U.P., M. Brancucci";

Maynmar (Burma): **lectotype** *E. (H.) mellitula*, female (NMW), here designated - „Fieber, Mulmein 1871", black quadrangular, „*Epuraea mellitula* Reitt., Mulmein";

Thailand: 1 male (MHNG) - „NE Bangkok, Khao Yai Nat. Park, 750-850 m, 26.XI-3.XII.85, Burckardt-Löbl"; 1 female (ZISP) - „Mae Hong Son, Tom Lok, 8 km N Mae Lang, 700 m, 11, 13.XI.1985, Burchardt-Löbl"; 2 (SMNS) - „Lom Sak, 40 km N Phetchabun, ca. 120 m, August 1987, W. Thielen"; 1 (SMNS) - „Changwat Chiang, Mai Chiang Mai, 18.12.1988, 250 m, Trautner & Geigenmüller" (21-24.12.1988);

Vietnam: 3 (TMB) - „Cuc Phuong, Ninh binh, 3-10.3.1966, Gy. Topál, beaten from bushes near creek"; 112 (TMB, ZISP) - „Cuc Phuong, Ninh binh, 11-17.V.1966, Gy. Topál, beaten from blossoning *Dracena*"; 5 (TMB, ZISP) - „Tuong linh, near Phu ly, 24-28.V.1966, Gy. Topál, from blossoming *Pandanus*"; 1 (TMB) - „Moi lam, NE Hanoi, 12-14.4.1966, Gy. Topál, netted in grasses"; 24 (TMB, ZISP) - „Yen So, SE Hanoi, 19-23.4.1966, Gy. Topál, beaten from trees";

Indonesia: **lectotype** *E (H.) concolor*, male (BMNH), here designated and 1 **paralectotype**, male (BMNH) - „Dor.", „68.106", „*concolor*"; 2 **paralectotypes** *E. (H.) concolor* (BMNH) - „Celebes", „Bowring 6347 *"; **lectotype** *E. (H.) minuta* (NMW), here designated - „*Epuraea minuta* Reitt., Java", „752", black quadrangle; 1 **paralectotype** (NMW) - „*Epuraea minuta* Reitt., Java", „Novara, 1857-59 Reise", black quadrangle; 1 **paralectotype** *E. (H.) minuta* (NMW) - „*Epuraea minuta* Reitt., Java", „Pfeiffer 838"; **lectotype** *E. (H.) nitescens*, male (MSNG), here designated and 4 **paralectotypes** (MSNG) - „Sumatra, Balighe, X.90-III.91, E. Modigliani", „*Haptoncura nitescens* ty. Grouv."(written by A. Grouvelle); 1 **paralectotype** *E. (H.) nitescens* (MSNG) - „Sumatra, Si-Rambé, XII.90-III.91, E. Modigliani"; 3 **paralectotypes** *E. (H.) nitescens* (MSNG) - „Sumatra, Ajar Montcior, Agosto 1878, O. Beccari";

China: 1 (BMNH) - „Bowring, 13.2.1952";
Japan: **holotype** *E. (H.) uenoi*, female (collection of T. Nakane) - „Tokara Is., Nakanoshima, 8.VI.1953, S. Ueno";
Samoa: 1 (NMW) - „Upolu, Samoa, Reichenger";
Hawaii: **lectotype** *E. (H.) munda*, female (BMNH), here designated and 3 **paralectotypes**, females (BMNH) - „Sandwich Is.", „Sharp Coll.", „*Haptoncus mundus* Types D.S".
Additional specimens are known to the author mainly from subtropics and tropics of the Eastern Hemisphere (including the Australian region - BMNH, BPBM, CNC, DEI, FNNH, MMUE, MSNG, RMNH, SMNS, TMB, USMN, ZISP, ZMB, ZMUC, ZSI, ZSM).

D i a g n o s i s: This species is well distingushed by subquadrate and small body with widely explanate pronotal and elytral sides, very shiny dorsum and temples frequently extended beyond outer edge of eyes. It is more similar to *E. (Haptoncus) morbosa* new species, but differs from the latter in the characters mentioned in the above key and diagnosis to the new species (see below).

N o t e s: The type specimens of *E. (H.) concolor* are rather small (lectotype - 1.8 and paralectotype - 1.7 mm), with temples weakly raised and not extended beyond their eyes. At the same time, the type specimens of *E. (H.) concolor* from Celebes are a little larger and with temples exposed beyond eyes. This character is rather variable and only in large specimens the projecting temples are distinctly present beyond the eyes. Traditional interpretation of *E. (H.) minuta* and *E. (H.) mellitula* (Kirejtshuk, 1992) should be regarded as extreme variations of the widespread species first named as „*Haptoncus concolor*" Murray, 1864.

The synonymy of *E. (H.) minuta* and *E. (H.) nitescens* was proposed by Grouvelle (1913a) and confirmed by the additional study of the type series of both species had done to prepare this monograph. The synonymy of *E. (H.) mellitula*, *E. (H.) munda* and *E. (H.) uenoi* was proposed by Kirejtshuk (1992) without detailed explanation, although the types of all names had been studied for preparation of the work last mentioned. Finally, the study lectotype and paralectotypes of *E. (H.) concolor* gives evidence that all names here synonymized belong to the

same species. Authomatically, *Epuraea perminuta* proposed for *E. (H.) minuta* leaves its validity, because the latter is one of junior synonyms of *E. (H.) concolor*.

Specimens from Thailand collected by D. Burckhardt and I. Löbl are somewhat smaller, slender, without projecting temples and have an appearance of strongly shiny *E. (H.) fallax* with abnormally wide explanation of pronotal and elytral sides.

B i o n o m y: This species is recorded mostly from flowers and fruits of different plants (usually fruticous and arboreous), but also under bark, leaf litter and so on. Imagines have been collected the year round.

D i s t r i b u t i o n: This species occurs in tropics of Eastern Hemisphere, throughout the:
- Indo-Malayan region including Papuan province: Pakistan, Punjab; India, Uttar Pradesh and southern parts; Nepal; Myanmar (Burma), Mulmein [type locality of *E. (H.) mellitula*]; Thailand; Laos, Vietnam; Sri Lanka; throughout Indonesia including Java [type locality of *E. (H.) minuta*], Mentawai, Sumatra [type locality of *E. (H.) nitescens*], Kalimantan, Java, Lombok, Seram, Timor, Sulawesi; Philippines, Leyte, Mindanao; Papua New Guinea [including Manokwari: type locality of *E. (H.) concolor*];
- Palaearctic region: Japan, including Tokara islands [type locality of *E. (H.) uenoi*]; Korea;
- Afrotropical region: Guinea, Liberia, Togo, Nigeria, Cameroon, Sao Tomé, Equatorial Guinea, Zaire, Rwanda, Tanzania, Kenya, Uganda, Angola;
- Capean region;
- Madagascarean region: Madagascar, Réunion, Mauritius, Seychelles ;
- Polynesian region: Micronesia, Mariana Islands, Palau islands, Caroline islands, Marshall Islands, Gibert islands; Tonga; Nukùalof; Hawaii [type locality of *E. (H.) munda*]; West-Samoa; Samoa islands; Tahiti;
- Australian region: Australia, Queensland;
- Novacaledonian region: New Caledonia, La Foa.

This species was introduced to USA (Los Angeles) and to Brazil from Asia.

Epuraea (Haptoncus) dubia (Grouvelle, 1897), **new combination**

Figs. 28-33; Map 3, a

=*Haptoncura dubia* Grouvelle, 1897: 363 (Sumatra); *Haptoncus dubius*: Grouvelle, 1913a: 96; Gillogly, 1982: 289.

M a t e r i a l -
total 12 including lectotype (MSNG) and 2 paralectotypes (MSNG) - **Thailand**: 7 (MHNG, SNMS, ZISP) - „Mae Hong Son, Tom Lok, 8 km N Mae Lang, 700 m, 11, 13.XI.1985, Burckhardt-Löbl";
Vietnam: 2 (ZISP) - „400 m, Son duong, khr. Tam dao, lukovitzy (onions of) *Dilfenia*, 24.II.1962, O. Kabakov";
Indonesia: **lectotype** *Haptoncura dubia*, female (MSNG), here designated and 2 **paralectotypes**, females (MSNG) - „Sumatra, Si-Rambé, XII.90-III.91, E. Modigliani", „*Haptoncus dubius* Gr." (probably written by A. Grouvelle).

R e d e s c r i p t i o n: Length 2.2-2.7, breadth 1.4-1.6, height 0.5 mm. Rather flattened, unicoloured reddish (elytra of the lectotype a little darkened with light sides and a small circular spot before apex of each elytron); moderately shiny; covered with comparatively dense, long, fine and slightly conspicuous reddish hairs. Head and pronotal surface with oval, not quite distinct punctures as large as eye facets, interspaces between them about a third of a puncture diameter, smoothly microreticulated. Elytral surface with coarser and less distinct punctation than that on head and pronotum, but with more conspicuous microreticulation on interspaces; base with nearly rasp-like sculpture. Ventral surface more shiny, more sparsely and finely punctured, more smoothly sculptured than on dorsum. Head shorter than the distance between eyes, flattened. Antennae about as long as head breadth, their club almost twice as long as wide and composing 2/7 of general antennal length. Last segment of labial palpi cup-like and not narrowed to its apex.

Distance between mid coxae subequal and that between hind ones 3 times broader than the distance between fore coxae. Tibiae nearly twice narrower than antennal club. Fore and mid femora 2.5 times, and hind ones 3.0 times wider than corresponding tibiae. Fore tarsi 2/3 as wide as fore tibiae; mid and hind tarsi narrower and longer than fore ones.

M a l e: Pygidium truncate at apex. Hind tibiae a little more arcuate than in female. Aedeagus weakly sclerotized.

F e m a l e: Apices of pygidium and hypopygidium widely rounded. Ovipositor scarcely sclerotized.

D i a g n o s i s: This species is the widest member of the subgenus and rather similar to *E. (H.) fanuli* (see below), but has gently outlined pronotum and elytra, much more widely explanate pronotal and elytral sides, projecting elytral apices with greatest length at suture and shorter legs. The indonesian males of this species have a rather short aedeagus with strongly curved tegmen. At the same time specimens from Thailand have strictly truncate elytral apices and aedeagus with tegmen shaped as in the paralectotype of *E. (H.) concolor* with long and slightly curved lateral lobes and parallelsided, nearly membraneous penis trunk.

N o t e s: Probably, this species has a wider range than that can be outlined according to records here listed.

B i o n o m y: As other species of the subgenus, this species is probably associated with decaying products of plant origin (such as fruits of *Dillenia* etc.). The imagines were collected in February and November-December.

D i s t r i b u t i o n: The Indochinese province and closest islands: Thailand, Mae Hong Son; Vietnam, So'n Du'o'ng (Tam Dao); Indonesia, near Sumatra („Si-Rambé" - type locality).

Epuraea (Haptoncus) fallax (Grouvelle, 1897), **new combination**

Figs. 34-41, 692-701

=*Micruria fallax* Grouvelle, 1897: 361 (Sumatra); *Haptoncura opaca* Grouvelle, 1897: 362 (Sumatra), new synonym, non *Epuraea opaca* Motschulsky, 1863; *Haptoncus opaculus* Grouvelle, 1906a: 317 (Timor); Grouvelle, 1913a: 98; Gillogly, 1962: 178 (Micronesia); Gillogly, 1982: 288 (Indonesia, Micronesia); Kirejtshuk, 1992: 123 (lectotype designation and synonymy); *Haptoncus murrayi* Grouvelle, 1906a: 318 (Mentawai); Grouvelle, 1913a: 97; Gillogly, 1962: 177 (Micronesia); Gillogly, 1982: 290; Kirejtshuk, 1992: 123 (lectotype designation and synonymy); *Haptoncus epuraeoides* Grouvelle, 1908: 344, 346 (Ceylon); Grouvelle, 1913a: 96 (India); Gillogly, 1962: 174 (also Micronesia); Gillogly, 1969: 248 (Philippines, Palawan; Bismarck islands, New Ireland); Gillogly, 1982: 290; *Haptoncus fallax*: Grouvelle, 1913a: 96; Gillogly, 1982: 290; *Haptoncus opacus*: Grouvelle, 1913a: 98; Gillogly, 1962: 179 (Micronesia); Gillogly, 1982: 288 (Indonesia, Micronesia); *Haptoncus insularis*: Gillogly, 1969: 248 (Philippines, Tawitawi islands); *Haptoncus murrayi*: Gillogly, 1969: 248 (Philippines, Mentawai; *Epuraea (Haptoncus) opaca*: Kirejtshuk, 1992: 123 (also Khabarowsky and Primorsky krays, Sakhalin, Kuriles, Indo-Malayan region; lectotype designation and notes on synonymy).

Material -
total more than 3000, including 4 syntypes (BMNH) of *E. (H.) epuraeoides*, lectotype (MSNG) of *E. (H.) fallax*, lectotype (MSNG - Kirejtshuk, 1992) of *E. (H.) murrayi*, lectotype (MSNG - Kirejtshuk, 1992) of *E. (H.) opaca* (Grouvelle, 1897, non Motschulsky, 1863), lectotype (MSNG - Kirejtshuk, 1992) and 1 paralectotype (MSNG) of *E. (H.) opacula*, 1 paratype (BPBM) of *Haptoncus luzonensis* -
India: 2 (BMNH) - „Haldwani Dist., Kumaon, H.G. Champion"; 3 (BMNH, ZISP) - ibid., „Apr. '23, H.G.C.", „H.G. Champion"; 1 (TMB) - „W.Bengal, Calcutta, on lamp, 30.10.1967, Gy. Topál"; 1 (USNM) - „Assam, Chabua, IV.27.1944, D.E. Hardy"; 16 (TMB, ZISP) - „Orissa, Bhutaneswar town, 11.2.1967, Gy. Topál", „singled material";
Thailand: 1 (SMNS) - „28/6.93, 14.01N 99.31E, Kanchanaburi, 50 m,

Vit Kubán"; 1 (SMNS) - „10-13.1.1993,19.27N 98.20E, Soppong, 1550 m, L. Bocák"; 1 (MMUE) - „300 m, Chiang Mai, 16.6.74, light, R.A. Beaver"; 1 (TMB) - „Kaeng Krachan N P, Reservoir", „at light, 5.II.1994, S. & L. Mahunka";
Vietnam: more than 80 (ZISP) - „khr. Tam Dao, Son Duong, dolinnoye nizkogore, 20.II.1962, O. Kabakov"; 6 (ZISP) - „gory (mountains) 50 km NO Thai Nguyên, tzvetutschiye kustarniki (blossoming bushes), 2.03.1963, O. Kabakov" (28.X.1962); 10 (TMB, ZISP) - „Cuc Phuong, Ninh binh, 11-17.V.1966, Gy. Topál, beaten from blossoming *Dracena*"; 1 (TMB) - „Cuc phuong, Ninh binh, 3-10.V.1966, Gy. Topál", „N 268, beaten from bushes near creek"; 6 (TMB) - „Tuong linh, near Phu ly, 24-28.V.1966, Gy. Topál"; 4 mature (?3d instar), 2 immature (1st or 2d instar) larvae (ZISP) and 3 imagines (ZISP) - „tea inflorescence, B. Korotyaev";
Sri Lanka: 4 **syntypes** *E. (H.) epuraeoides* (BMNH) - „Murray", „68-106", „Ceylon";
Malaysia: 8 (TMB) - „Pahang, Pulau Tioman, Kampung Juare", „at light in the village, 7-9.III.1995, O. Merkl"; 2 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29. III.1995, O. Merkl & I. Szikossy"; 3 (CNC, ZISP) - „Sarawak, Semongok, 12 mi. S. Kuching, 1.I.1975, A. Earnshaw";
Indonesia: **lectotype** *E. (H.) fallax*, male (MSNG), here designated - „Sumatra, D. Tolong, XI.1890, E. Modigliani", „*Micruria fallax* ty. Grouv."; 1 (ZMUC) - „Mentawei, Si Matobe, VII.94, Modigliani"; 4 (RMNH, ZISP) - „Bantam, Java, de Vos, J.J. de Vos tot Nedeveen Cappel"; 1 (RMNH) - „Djombang, Soerabaia, Java, ex. coll. F.T. Volck Lucassen"; 1 (TMB) - „Java, Xánthus, Sindanglaja", „*Haptoncus reflexicollis* Motsch. det. Frivaldszky", „*Epuraea dispar* Sjöberg, paratypus ined.";
Philippines: 1 **paratype** *Haptoncus luzonensis* Gillogly, 1982 (BPBM) - „Mindanao, Zamboanga Del Sur, Zamboanga, 30.VIII.1958", „Light trap, H.E. Milliron"; 2 (SMNS, ZISP) - „Leyte, Visca, N Baybay, 1991, sec. forest, 100-200 m, Schawaller & al.,", „3.3.91" (11.3.91);
and also some hundreds of specimens (BMNH, CNC, FMNH, MHNG, MMUE, MSNG, NMB, NMW, RMNH, SMNS, TMB, USNM, ZISP, ZMUC, ZMB, ZMMU, ZSM) from Russian Far East, Korea, South

East China, South India, Indochina and island systems of the Indo-Malayan region.

D e s c r i p t i o n of mature larva (of ? 3d instar): Length 2.3-2.8, breadth 0.4-0.7 mm. Elongate or slightly oval, subcylindrical, hardly compressed dorsoventrally, slightly sclerotized and with rather short and sparse hairs. Dorsum with setose small tubercles located on transverse stripes, which cross each tergite and somewhat more sclerotized than other surfaces of body sclerites (tubercles on all tergites arranged in 8 longitudinal rows continuing from pronotal plate to tergite VIII and 3 tubercles in each rows disposed on thoracic and 8 abdominal segments). Abdominal tergite IX with urogomphi and some comparatively projecting tubercles. Head with frons bearing a distinct trace of frontoclypeal suture, invisible stemmata (viewing as 4 tubercles without pigmentation behind each antenna); labroclypeal epipharynx without developed furniture; mandibles with well raised mola and prosteca; maxillae with a mala bearing a well developed membraneous appendix at base of its inner side; hypopharynx with a rather weak armature (including sclerome and bracons). Spiracles biforous and disposed on top of very short tube (as tubercles), abdominal ones situated dorsolaterally. Legs short, with simple tarsungulus.

D e s c r i p t i o n of immature larva (of 1st or 2d instar): Length 0.9-1.2, breadth 0.2-0.3 mm. Elongate, subcylindrical, very slightly sclerotized and with extremelly long and sparse hairs. Dorsum with small tubercles located on transverse stripes, which cross each tergite and somewhat more sclerotized than other surfaces of body sclerites. Abdominal tergite IX with urogomphi scarcely differed from other tubercles on dorsum. Head, spiracles and legs as those in mature larva.

D i a g n o s i s (imagines): In addition to the diagnostic chracters in the above key, it needs to be noted that *E. (H.) fallax* has a more oval and more convex body in comparison with other members of the subgenus, looking rather like a very small specimens of *Epuraea (Epuraea)* sensu stricto [partly reminiscent of *E. (E.) aestiva*]. Variability of it makes difficult a reliable identification of single specimen. Moreover, this species can be separated from specimens of *E. (Haptoncurina) gestroi* only due to its more convex body with rather narrowly explanate pronotal and elytral sides and shorter aedeagus.

N o t e s: The synonymy of this species was established after study of the type series proposed for all mentioned names. The names *E. (H.) murrayi*, *E. (H.) opaca* (Grouvelle, non Motschulsky) and *E. (H.) opacula* were synonymized together with lectotype designation by Kirejtshuk (1992) after comparison of the specimens from the type series. Recent study of the type series of *E. (H.) fallax* and *E. (H.) epuraeoides* give ground to increase the list of synonyms for the species under consideration. However, the syntypes of *E. (H.) epuraeoides* need a further test to lectotype designation, although they definitely belong to this species being very similar to the type specimens of *E. (H.) murrayi* including proportion of eyes and temples, but with broader body. The studied paratype of „*Haptoncus luzonensis*" belongs to the same species, but it is advisable to synonymyze this Gillogly's name after a restudy of holotype.

This species is one of the most abundant and most variable species of the subgenus, widely distributed in the Palaearctic Far East and Indo-Malayan region (including Papuan province; for instances: 6 (USNM, ZISP) - „PAPUA NEW GUINEA: Morobe District, Wau, 1200 mtrs, 8-14 Dec.1976, Mercury vapor light, H.F. Hevel & R.E. Dietz IV"; 1 (USNM) - ibid., „McAdam Nat. Park, 8 mi NW Wau, 850 mtrs, black light, 13 Dec.1976, G.F. Hevel & R.E. Dietz, IV" etc.). It is possible to distinguish two forms: one of them with a very confused and not so deep punctation (corresponding with the type series of „*E. (H.) opaca*" (Grouvelle, non Motschulsky) and „*E. (H.) murrayi*") and the second with nearly regular and distinct punctation on dorsum (respectively - „*E. (H.) fallax*"). However, there are many series including different kinds of intermediate specimens. Besides, elytral apices show a great level of variability between truncate and oblique apices with greatest length at the suture. The paratype of „*Haptoncus luzonensis*" Gillogly, 1982 (BPBM) here identified as *E. (H.) fallax* has the widest body (but only slightly wider than in „*murrayi*". Finally, specimens from Sarawak (CNC) have a confused, sparse, shallower and rather reduced punctation of dorsal sclerites. At the same time, more robust and more convex

specimens with dull surface and reduced punctation on the elytra are more characteristic in general to the Palaearctic regions, while the specimens from the Indo-Malayan and Polynesian ones are frequently comparatively more slender, less convex, more shiny and with more distinct punctation.

Sometimes Grouvelle named specimens of this species from Philippines as „*Haptoncus liliputanus*" (in MNW), and Connell (in collection) and Gillogly (1962) used for this species the name „*Haptoncus opaculus*", and finally Hisamatsu (1985) gave a photo of rather the same species having provided it with the name „*Epuraea paulula*" (Plate 28, Figs. 32). Finally, the specimens recorded by Gillogly (1969) from Noona Dan expedition in Pilippine and Bismarck islands as „*Haptoncus epuraeodes*", „*H. insularis*" and „*H. murrayi*" and restudied by the author should be considered also as *E. (H.) fallax*.

Bionomy: This species is collected mostly on flowers and fruits of different plants (fruticous and arboreous) in different types of forest, brushwood and cultural plantations, but not infrequently also in other substrates near soil, including leaf litter. This species is not known as inhabitant of artificial places, although taking into consideration its ecological plasticity, its further spread and introduction into new territories can be expected. Imagines have been collected during the year round.

Distribution: Throughout in the Indo-Malayan region: India, Himachal Pradesh, Uttar Pradesh, Sikkim, West Bengal, Assam, Orissa; Sri Lanka [type locality of *E. (H.) epuraeoides*]; Thailand (including Tenasserim); Vietnam; Malaysia (continental and insular parts); Indonesia, Kalimantan, Mentawai [including Matobe („Si Matobe"): type locality of *E. (H.) murrayi*], Sumatra [including „Doloc Tolong": type locality of *E. (H.) fallax* and „Benculen": type locality of *E. (H.) opaca* Grouvelle, 1897, not Motschulsky, 1863], Borneo, Java, Timor [including „Deli Marro": type locality of *E. (H.) opacula*]; Philippines, Tawitawi islands, Palawan, Luzon [Laguna: type locality of „*Haptoncus luzonensis*"], Leyte, Mindanao; Papua New Guinea, Morobe District (Wau, McAdam National Park), Bismarck islands, New Ireland; and also in the:

- Palaearctic region: Russia, Khabarowsky and Primorsky krays, Sakhalin, Kuriles; Korea; Japan; north-eastern and eastern China, including Taiwan;
- Polynesian region: Micronesia, Mariana islands, Caroline islands, Marshall islands;
- Australian region: Queensland.

Epuraea (Haptoncus) fanuli Gillogly, 1982, **new combination**

Figs. 42-45; Map 1, b

=*Haptoncus fanuli* Gillogly, 1982: 283, 287 (Borneo; Philippines).

Material -
total, 25, including 2 paratypes *E. (H.) fanuli* (BPBM) -
Vietnam: 2 (ZISP) - „100 km NW Thanh ho'a, Lang Chang, 20-22.1.1989, B. Korotyaev" (Sugonyaev); 1 (ZISP) - "40 km SW Thanh Hoa, Ben En Nat. Park, 12-24. 8. 1997, h=50 m, A. Napolov"1 (NMW) - 25.V-10.VI, Sapa (Lao Cai), 22°20'N 103°50'E, E. Jendek 1991";
Malaysia: 2 **paratypes** *E. (H.) fanuli* (BPBM) - „North Borneo, Ranau, 22-25.II.1959", „T.C. Maa"; 3 (TMB, ZISP) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, N 72, 21.III-2.IV.1995, O. Merkl"; 1 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29.III.1995, O. Merkl & I. Szikossy"; 1 (CNC) - „SARAWAK, Semongok, 12 mi. S. Kuching, 1.I.1975, A. Earnshaw";
Indonesia: 2 (RMNH, ZISP) - „Bantam, Java, de Vos"; 1 (ZISP) - „Buitenzorg, Java, 3.4.09", „Bryant & Palmer";
Philippines: 3 (ZMB, ZISP) - „Mindanao, Surigao, Böttcher, 30.10.1915"; 7 (ZMB, ZISP) - „Mindanao, Dansalan b. Lanao, Böttcher, 8.2.1915"; 1 (USNM) - „Zamboanga, Mindanao, Baker", „7126"; 1 (USNM) - „Mt. Makling, Luzon, Baker"; 1 (USNM) - „Occ. Neg., P.I., Jan. 30, 1931, La Carlota C.n.", „A.W. Lopez", „sugar cane Hda. Assoc. w/mealyhug".

Variations: Length 2.0-3.1, breadth 1.3-1.6 mm. Coloration varies from light reddish to nearly brownish.

D i a g n o s i s: This species is particularly characterized by comparatively robust and convex body, and elongate antennal club (frequently up to twice as long as wide). It mostly resembles *E. (H.) dubia*, but differs from it in larger and more convex body, not so gently oval outline of pronotum and elytra, more narowly explanate pronotal and elytral sides, obliquely truncate elytral apices forming a sutural corner, much longer legs and subacute apex of female pygidium. *Epuraea (Haptoncus) fanuli* has some resemblance to *E. (H.) luteola*, but easily distinguished from it by its more robust and shining body with clearly explanate and more arcuate pronotal and elytral sides, denser and more distinct punctation of dorsal surface, thin hind femora and tibiae in the both sexes without secondary sexual characters in the shape of the latter, but female pygidium of *E. (H.) fanuli* in contrast to *E. (H.) luteola* has subacute apex. On the other hand, *E. (H.) fanuli* is similar to *E. (H.) maehleri* new name, differing from it in its more robust and larger body, shape of pronotum and elytra with explanate sides, more distinct punctation and obsolete sculpture on dorsal surface, and apex of female pygidium.

N o t ĕ s: This species as *E. (H.) dubia* and some other species of *E. (Haptoncus)* and *E. (Haptoncurina)* has a rather wide distribution but it is not so abundant in nature and in collections as *E. (H.) luteola* or *E. (H.) ocularis*.

B i o n o m y: The imagines of this species are collected in conjunction with other wide spread species of the subgenus within January-April, and in June, September and October, probably near or in lowland rainforest.

D i s t r i b u t i o n: This species spreads in the Indochinese and Malayan provinces: Vietman, Sa Pa (Lao Cai), NW Thanh Ho'a (Lang Chánq); Malaysia, Pahang [Cameron Highlands (Tanah Rata)], Kalimantan [Sabah, „Kalabakan" (type locality), Tawau (Quoin Hill), Tenompok (Jesselton), Ranau (Semongok)]; Indonesia, Java („Bantam", Buitenzorg); Philippines, Luzon (Mountains Isarog and Makling), Negros (La Carlota), Mindanao (Surigao, Dansalan near Lanao, Zamboanga).

Epuraea (Haptoncus) luteola Erichson, 1843

Figs. 46-50

Epuraea luteola Erichson, 1843: 272 (Cuba); Chevrolat, 1863: 602; Reitter, 1873: 29 (notes on synonymy); Horn, 1879: 301 (USA); Olliff, 1885: 70; Audisio, 1993: 316 (Macaronesia and Mediterranean province, Italia); *Nitidula intendens* Walker, 1858: 206; Olliff, 1885: 70 (synonymy); *Nitidula submaculata* Walker, 1859: 52; Olliff, 1885: 70 (synonymy); *Haptoncus pubescens* Murray, 1864: 403; Olliff, 1885: 70 (synonymy); Grouvelle, 1913a: 97; Kirejtshuk, 1992: 122 (synonymy); *Haptoncus testaceus* Murray, 1864: 403, non *Anthribus testaceus* Olivier, 1789: 160, non *Epuraea testacea* Rey, 1889: 4; Grouvelle, 1913a: 98; Kirejtshuk, 1992: 122 (lectotype designation and synonymy); *Epuraea vulpecula* Redtenbacher, 1867: 34; Reitter, 1873: 29 (notes on synonymy); *Haptoncus pauperculus* Reitter, 1873: 179 (St. Domingo); Grouvelle, 1913a: 97; *Epuraea texana* Crotch, 1874: 76 (USA); Horn, 1879: 334 (synonymy); Parsons, 1943: 184 (notes on types); *Haptoncus texanus* Grouvelle, 1913a: 97; *Haptoncura luteola*: Reitter, 1875a: 62 (sep. 12); *Haptoncus subquadratus*: Fauvel, 1903: 301 (New Caledonia); Grouvelle, 1906d: 75; Grouvelle, 1913a: 97; *Haptoncus vulpecula*: Grouvelle, 1913a: 98; *Haptoncura subquadrata* Reitter, 1877: 22 (Australia, Cape York); Blackburn, 1891: 105; *Haptoncura albertisi* Reitter, 1880: 455; Kirejtshuk, 1992: 122 (notes synonymy); *Epuraea intendens*: Olliff, 1885: 70 (synonymy); *Epuraea submaculata*: Olliff, 1885: 70 (systematic position); Grouvelle, 1908: 352; Grouvelle, 1913a: 124; *Haptoncus luteolus*: Sharp, 1890: 305 (Central America); Grouvelle, 1905: 242; Grouvelle, 1906b: 75; Grouvelle, 1908: 346; Grouvelle, 1913a: 96 (tropical and subtropical regions); Grouvelle, 1914b: 38 (Taiwan); Parsons, 1943: 184 (notes on types); Nakane, 1959: 56 (Japan); Gillogly, 1962: 176 (tropicopolitan and throughout Micronesia); Gillogly, 1969: 248 (Philippines, Bismarck islands); Kehat, Blumberg, Greenberg, 1976: 93 (Israel); Hayashi, 1978: 15, 33 (larva); Gillogly, 1982: 287; Endrödy-Younga, 1982: 268 (Réunion, Mauritius, Madagascar); Audisio, 1982: 107 (Sierra Leone); Hisamatsu, 1985: 180; *Haptoncus floreolus* Sharp, 1890: 305 (Central America); Grouvelle, 1913a: 96; *Haptoncus ochraceus*: Grouvelle, 1912/1913: 388; Grouvelle, 1913a: 97; *Haptoncus albertisi*: Grouvelle, 1913a: 96; *Hapton-*

cus intendens: Grouvelle, 1913a: 96; *Epuraea (Haptoncus) luteola*: Kirejtshuk, 1992: 122 (pantropical species, including Japan, Northern Korea and China; lectotype designation and notes on synonymy); Kirejtshuk, 1996b: 23.

M a t e r i a l -
total more than 5 000, including lectotype (ZMB - Kirejtshuk, 1992) and 6 paralectotypes (ZMB) of *E. (H.) luteola*, holotype of *E. (H.) albertisi* (MSNG - Kirejtshuk, 1992), lectotype (BMNH - Kirejtshuk, 1992) and 1 paralectotype (BMNH - Kirejtshuk, 1992) of *E. (H.) testaceus* -
Pakistan: 1 (USNM) - „Karachi, 9.VIII.1962, J.W. Gentry", „guava fruit";
India: 4 (ZISP) - „Rajastan, Jodhpur, 10-12.IX.1989, A. Kompantzev"; 32 (ZISP) - ibid., „Jodhpur, Cazri Camp, 22-24.IX.1989, A. Kompantzev, banana traps"; 1 (SMNS) - „Uttar Pradesh, Rishikesh, 6.8.1989, A. Riedel"; 1 (BMNH) - „Darjeeling, Ghoom", „Gum Distr. Rongdong Valley, Dr. Cameron"; 1 (ZISP) - „W. Bengal, Calcutta, collected on lamp, 25-28.10.1967, Gy. Topál"; 2 (TMB, ZISP) - „Calcutta, Rusel street, at light, 9-12.VI.1980, Gy. Topál"; 1 (SMNS) - „Tamil Nadu, Kadalkanai, Munnar, 28.8.1989, A. Riedel";
Nepal: 19 (CNC) - „nr. Birganj Lothar, 450 ft, 8-12.IX.1967, Can. Nepal Exped." (3.IX);
Thailand: 17 (SMNS, ZISP) - „28/6.93, 14.01N 99.31E, Kanchanaburi, 50 m, Vit Kubán"; 5 (SMNS, ZISP) - „Lom Sak, 40 km N Phetehabun, ca. 120 m, August 1987, W. Thielen"; 11 (SMNS, ZISP) - „Chiangwat Chiang Mai, Chiang Mai, 21-24.12.1988, 250 m, Trautner & Geigenmüller"; 3 (TMB) - „Erawan N.P., Erawan Waterfall", „at light, N 90, 14.II.1994, S. & L. Mahunka"; 1 (TMB) - „Erawan N.P., River Kwae Yai, Erawan Guest House", „at light, N 75, 13.II.1994, S. & L. Mahunka";
Vietnam: 7 (TMB, ZISP) - „Tuong linh, near Phu ly, 24-28.V.1966, Gy. Topál, from blossoming *Pandanus*";
Malaysia: 1 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29. III.1995, O. Merkl & I. Szikossy"; 6 (TMB, ZISP) - „Pahang, Pulau Tioman, Kampung Juare", „at light in the village, 7-9.III.1995, O. Merkl"; 1 (TMB) - „Pahang, Pulau Tioman, trail between Juare and Tekek", „lowland rainforest, swept & beaten, 10-17.III.1995, O. Merkl"; 1 (TMB) - „Pahang, Pulau Tioman, 2 km S Kampung Juare, secondary growth", „swept & beaten, 15.III.1995, N 28, O. Merkl";
Philippines: 1 (SMNS) - „Leyte, Visca, N Baybay, Untersuchungsbelege, IV-IX.1991, A. Engler";
and also some thousands of specimens (BMNH, CNC, DEI, FMNH, MHNG, MMUC, MSNG, NMB, NMW, NRS, SMNS, TMB, USNM, ZISP, ZMUC, ZMB, MMU, ZSM) from all zoogeographic regions, with most representations from territories with tropical and subtropical climate.

D i a g n o s i s: *Epuraea (Haptoncus) luteola* is fairly well characterized by evenly vaulted dorsum with rather conspicuous pubescence, right hind corners and subparallel sides of pronotum at base, male hind tibiae curved and somewhat widened along inner edge. At the same time, this species demonstrates a certain variability in shape of lateral part of head as in other species of the subgenus: i.e. in some cases „projecting temples" are scarcely or not expressed. Besides, normally having a light straw coloration, some specimens are much darker (up to brownish - specimens from Chiang Mai: SMNS, ZISP) and some males have almost untraced characters of sexual dimorphism in hind tibiae. Finally, it should be noted that antennal grooves show a certain variability as well, and the types of *E. (H.) testacea* (BMNH) have more distinctly outlined grooves (see fig. 47) than those in most studied specimens.

N o t e s: The synonymy of *E. (H.) luteola*, *E. (H.) intendens*, *E. (H.) floreola*, *E. (H.) paupercula*, *E. (H.) subquadrata* and *E. (H.) texana* as well as the synonymy of *E. (H.) testacea* and *E. (H.) vulpecula* are taken from Grouvelle (1913a), although relations between separate pairs of names are proposed in different papers (Sharp, 1890; Grouvelle, 1908 and so on). Parsons (1943) confirmed synonymy between *E. (H.) luteola* and *E. (H.) texana*. Kirejtshuk (1992) published the synonymy between *E. (H.) luteola*, *E. (H.) submaculata*, *E. (H.) testacea* Murray, 1864, not „*Anthribus testaceus*" Olivier, 1789, not „*Epuraea testacea* Rey, 1889 and *E. (H.) albertisi* after additional study of the type specimens for these names.

One studied **paratype** of „*Haptoncus upoluensis*" Arrow, [male (BMNH) - „Samoa B.M., 1928-25", „Samoa Is., Upolu Is., III.1924, P.A. Buxton & G.H. Hopkins"; 2.2 mm] from typical *E. (H.) luteola* differs in its brown coloration, a little more dull and with more conspicuous pubescence; hind femur and tibia simple and apex of anal sclerite nearly transverse.

As in other species of this subgenus, the diagnosis of *E. (H.) luteola* is made difficult by the variability of all characters used for it (even curvature of male hind tibia can be weakly developed and almost invisible).

Bionomy: This species is recorded from different decaying substrates of dead plants in forest, brushwood and artificial plantation; it usually inhabits in rotten fruits as bananas, papaya, breadfruits and so on; imagines of it are not infrequent visitors of flowers of trees and bushes. The larval development is recorded on fermenting fruits and decaying flowers. Imagines of this species have been collected during the year round, but they are common in lowland landscapes and become rarer at up of elevation above sea level. This species is the most abundant and with the widest modern range among members of the subgenus, perhaps, in the whole subfamily. It is very frequently collected in different artificial conditions, associated with stored products and can be distributed by man.

Distribution: Pantropical range of this species embraces all the territories of the globe with tropical and subtropical climate, including the Indo-Malayan region: Pakistan; India, Rajastan, Uttar Pradesh, Darjeeling, West Bengal, Maharashtra, Orissa, Karnataka, Kerala, Tamil Nadu; Nepal; Thailand; Laos; Vietnam; Malaysia (continental and insular); Sri Lanka [type locality of *E. (H.) intendens*, *E. (H.) submaculata* and *E. (H.) pubescens*]; Singapore; throughout Indonesia, including Java [type locality of *E. (H.) vulpecula*], Sulawesi [type locality of *E. (H.) testacea* Murray, 1864, not „*Anthribus testaceus*" Olivier, 1789, not „*Epuraea testacea*" Rey, 1889]; throughout Philippines; New Guinea, including Isola (Yule) [type locality of *E. (H.) albertisi*].

This species has been also recorded throughout in the Afrotropical, Capean, Madagascarean and Novazealandian regions and in the:
- Palaearctic region: African part of Mediterranean province, Macaronesia, Italia, Israel, Afganistan, China, Korea, Japan;
- Nearctic region: USA, New Mexico, Florida, Texas [type locality of *E. (H.) texana*], California, Arizona, Illinois, Louisiana, Alabama, Georgia, Tennessee, Ohio, New Jersey, as weel as spread by human agency at least to District Columbia, Pennsylvania and New York; introduced to Canada: (CNC) „Montreal, from grapes, Nov.1.1978"; Mexico;
- throughout Australian region, including Cape York [type locality of *E. (H.) subquadrata*];
- throughout Neotropical region, including Brazil, Cuba [type locality of *E.(H.) luteola*], Dominican republic [Santo Domingo: type locality of *E. (H.) paupercula*];
- throughout Polynesian region, including West Samoa [Upolu: type species of „*Haptoncus upoluensis*"].

Epuraea (Haptoncus) maehleri new combination and name

Figs. 51, 52

pro *Haptoncus arcuatus* Gillogly, 1962: 169 (Micronesia, Caroline Islands), non *Epuraea (Epuraea) arcuata* Grouvelle, 1908: 350, 352; Gillogly, 1982: 290.

Material -
total, 6, including holotype (USNM) and 1 paratype (FMNH) of *Haptoncus arcuatus* -
Micronesia: **holotype** *E. (H.) arcuatus* Gillogly, non Grouvelle, male (USNM) - „Truc: Tol i., Mt. Unibot, Jan. 4 1953", „native forest", „Light trap, alt. 390 met., J.L. Gressitt"; 1 **paratype** *E. (H.) arcuatus* Gillogly, non Grouvelle (FMNH); 1 male (FMNH) - „Nanpil, Nett Dist., PONAPE I., 27 Feb. 1948", „Pacific Sci. Board Ent. Surv. of Micronesia, H.S. Dybas Leg.", „*Haptoncus epuraeoides* Grouvelle" (labeled by L. Gillogly); 2 females (USNM, ZISP) - „Moen I. Truck, 600 Ft, VII-31-46", „H.K. Townes"; 1 female (USNM) - „Moen I. Truck, 100 Ft, VI-2-46", „H.K. Townes".

Redescription (based on the holotype of *Haptoncus arcuatus* Gillogly, 1962, non Grouvelle, 1908): Length 2.3, breadth 1.1, height 0.6 mm. Rather evenly and slightly convex dorsally and ventrally; pale straw coloured and shiny; dorsum with fine golden hairs, a little longer than distance between their insertions. Surface of head, pronotal and elytral sides with comparatively large and deep, but not quite distinct punctures, about 1.5 times as large as eye facets, interspaces between them almost half as broad as a puncture diameter, with rather smooth and fine microreticulation. Pronotal disc with more distinct and more sparse punctures, interspaces between them about half as broad as a puncture diameter, almost completely smooth; elytral disc similar to pronotal one, but punctures less distinct and intervals between them with a trace of microreticulation. Surface of pygidium and anal sclerite with indistinct punctures, about as large as eye facets, interspaces between them nearly a puncture diameter, finely and densely microreticulated. Ventral surface with reduced punctation (only metasternal punctures raised as those on head, pronotal and elytral sides), intervals between punctures alutaceous or finely and very densely microreticulated, but almost smooth on prosternal process. Head scarcely shorter than distance between eyes (composed of rather large facets), slightly convex at vertex. Mandibles moderately exposed from under labral lobes. Antennae longer than head width, their club 1 1/3 times as long as wide and comprising about a third of total antennal length. Pronotum with widely rounded fore and hind corners, sides gently sloping and subexplanate at hind corners. Elytra gently sloping to subexplanate sides and subacute at apices. Pygidium with transverse apex and anal sclerite with an exposed and rounded apex. Ultimate labial palpomere widened to transverse apex, a little shorter than its greatest width. Mentum 3 times as long as wide. Inner edges of antennal grooves scarcely indicated behind mentum. Epipleura comparatively wide (somewhat wider than antennal club). Legs short with segments normally shaped.

Variations: All specimes from Moen are much smaller (1.7-2.2 mm) and more slender. The specimen from Ponape Island has a comparatively wider and shorter pronotum (about twice as wide as long), widest at base. Punctation, sculpture and coloration are slightly variable.

Diagnosis: This species is characterized by its rather smooth and shiny body with slightly convex or almost flattened dorsum, rounded fore and hind pronotal corners, arcuated sides and subacute apices of elytra, and especially coarse, sparse and rather deep dorsal punctation. *Epuraea (Haptoncus) maehleri* new name is most similar to *E. (H.) takhtajani* Medvedev & Ter-Minassian, 1973, but easily distinguishable from it due to its smaller size of body, subacute and less projecting labral lobes, subacute elytral apices, much coarser and sparser punctures with smooth and shiny interspaces on dorsum. The species under consideration somewhat resembles *E. (H.) fanuli* and *E. (H.) concolor*, differing from both in the more flattened body, subacute labral lobes rather projecting forward, subacute elytra and temples never extended beyond outer edges of eyes, and from the first also in smaller body, much coarser and sparser punctation, and from the second in the more arched elytral sides. The weakly convex or almost flattened dorsum of this species is reminescent of (?probably) true „*Haptoncus luzonensis*" Gillogly, 1982 from insular systems of the Indo-Malayan region, but arcuate sides and subacute apices of elytra as well as completely different punctation of strongly shiny body well distinguish it from both species.

Bionomy: This species has been recorded in native forest of islands on *Pithecellobium dulcis* (Gillogly, 1962). Imagines have been collected within January-March and in July.

Distribution: This species is known only from Micronesia in the Polynesian region: Caroline islands (Tol: type locality).

Etymology: The species is named in honour of K.L. Maehler collected plenty of interesting species on the Pacific islands material being deposited in USNM.

Epuraea (Haptoncus) morbosa new species

Figs. 65-69; Map 3, b

Material -

total 3, including holotype (ZISP) and paratypes (ZISP) -

Vietnam: **holotype**, male (ZISP) and 2 **paratypes** (ZISP) - „o. Thôchu (Dao ThôChu islands), 8-9.IV.1987, at light, u vody (near water), exped. po ostrovam (expedition in islands)".

Description of holotype (male): Length 1.6, breadth 0.9, height 0.4 mm. Slightly convex dorsally and ventrally; completely unicoloured pale straw, except for darkened eyes; rather shiny; dorsum with fine and moderately conspicuous hairs, 1.5 times longer than distance between their insertions, underside with less conspicuous and shorter pubescence. Head and pronotal surface with very distinct punctures, nearly as large as eye facets, interspaces between them as broad as a puncture diameter or somewhat narrower, completely smooth and shiny. Elytral surface about as those on head and pronotum, but outline of a little larger punctures less distinct, and interspaces between them markedly broader. Surface of pygidium with indistinct punctation, almost microgranulate with a somewhat smooth microreticulation on interspaces. Ventral surface with small and not very distinct punctures (especially smaller on prosternum), interspaces betweem them more or less smoothly microreticulated; middle of metasternum with punctures nearly as large and diffuse as those on dorsal sclerites, interspaces between them rather smooth. Head flat with a scarcely developed excavation between antennal insertions and somewhat shorter than the distance between eyes; temples scarcely reaching back of eyes. Antennae 3/4 as long as head width, their club 1 1/3 times as long as wide and comprising 1/3 total antennal length. Pronotum and elytra with sides almost unexplanate; pronotum widest at clearly emarginate base; elytra almost shorter than their combined width, transversely truncate at apices. Pygidium with a truncate apex, from under which widely rounded apex of anal sclerite is exposed. Distance between mid coxae subequal and that between hind ones about 3.5 times broader than that between fore coxae. Metasternum flattened, its hind edge between coxae shallowly angularly excised. Legs rather short and narrow with simple hind femur and tibia. Tibiae 3/5 as wide as antennal club. Fore tarsi moderately widened, a little narrower than respective tibiae. Tegmen moderately and penis trunk scarcely, sclerotized.

Female: Differs from the male in narrowly rounded apex of pygidium.

Variations: Length 1.3-1.6 mm. Pronotal and elytral sides narrowly explanate or almost unexplanate.

Diagnosis: This new species is closely related to *E. (H.) concolor*, although differing from it in narrowly explanate or almost unexplanate pronotal and elytral sides, pronotum widest at base, rather larger eyes and temples scarcely reaching back of eyes and shorter antennae with a much more oval club. Moreover, this species is, perhaps, also closely related to *E. (H.) luzonensis* Gillogly, 1982 according to the characters of two **paratypes** studied by the author from BPBM („Philippines, Mountain prov., Abaton, Buguias, 60 km S of Bontoc, 1800-2000 m, 2-4.V.1964", „H.M. Torrevillas"), but much smaller, with different labrum, explanate pronotal and elytral sides, and very distinct dorsal punctures (including those on elytra). Sides of elytra and pronotum of this new species are partly similar to those in *E. (H.) luteola*, *E.(H.) nubilis* Grouvelle, 1913b, *E. (H.) ocularis*, but differs from them in much smaller, unicoloured light and very shiny body with distinct dorsal punctation.

Bionomy: The imagines of this species were collected in insular forest in April.

Distribution: This species is known only from its type locality: Vietnam, Đao Thô Chu.

Etymology: The name of this new species is created from the Latin „morbosus" (delicate, sick, ill, weak, puny).

Epuraea (Haptoncus) ocularis Fairmaire, 1849

Figs. 53-56

=*Epuraea ocularis* Fairmaire, 1849: 363 (Polynesia); Reitter, 1873: 27; Reitter, 1880a: 508 (synonymy); Kraatz, 1895: 148 (Togo); *Epuraea bisignata* Boheman, 1851: 565 (Caffraria), non *Epuraea bisignata* Sturm, 1844: 80; *Nitidula significans* Walker, 1858: 206 (Ceylon); Olliff, 1885: 70 (synonymy); *Haptoncus tetragonus* Murray, 1864: 401;

Sharp, 1878: 139; Olliff, 1885: 70 (synonymy); Sharp, 1908: 508; Reitter, 1880a: 508 (synonymy); Reitter, 1884a: 259 (Japan); Grouvelle, 1903a: 113 (India, Darjeeling); Grouvelle, 1913a: 97; *Epuraea decorata* Reitter, 1873: 28, 41 (Madagascar); *Epuraea Thiemei* Reitter, 1873: 28, 41 (Japan); Reitter, 1884a: 260; *Haptoncura ocularis*: Reitter, 1875a: 62 (sep. 12); Blackburn, 1902: 306 (Australia, Queensland); Blackburn, 1903: 116; *Haptoncura Thiemei*: Reitter, 1884: 260; *Haptoncus significans*: Olliff, 1885: 70 (synonymy); Grouvelle, 1913a: 97; *Epuraea bifasciata* Kraatz, 1895: 148 (Togo); *Haptoncus ocularis*: Fauvel, 1903: 301 (New Caledonia); Grouvelle, 1908: 343, 345 (India, West Bengal, Sikkim, „Indes orientales"; Sri Lanka; Japan; Tahiti); Nakane, 1959: 56 (Japan); Hisamatsu, 1960: 2 (imago and larva); Gillogly, 1962: 176 (throughout Micronesia); Gillogly, 1969: 176 (Philippines); Jelínek, 1977: 394 (throughout Africa of Sahara; synonymy); Hayashi, 1978: 15, 33 (larva); Gillogly, 1982: 287; Endrödy-Younga, 1982: 269 (Réunion, Madagascar); Hisamatsu, 1985: 180; *Haptoncus decoratus*: Fauvel, 1903: 301 (New Caledonia); Grouvelle, 1906b: 75; Grouvelle, 1913a: 97 (Seychelles); Grouvelle, 1913d: 106; *Haptoncus bifasciatus*: Grouvelle, 1912 (1913): 395; *Epuraea bohemani* Plaviltshtschikov, 1924: 232; *Haptoncus barbulus* Gillogly, 1962: 172 (Micronesia), new synonym; Gillogly, 1969: 247 (also Philippines); Gillogly, 1982: 287; *Epuraea (Haptoncus) ocularis*: Kirejtshuk, 1992: 122 (also Korea, central and southern China, Australia and other tropical territories of Eastern Hemisphere); Kirejtshuk, 1996c: 24 (also Angola, Namibia, Malawi; variability).

Material -

total, more than 3000, including 4 paratypes (BPBM) of *E. (H.) barbula* and holotype of *E. (H.) bisignata* (NRS - Kirejtshuk, 1996b) -

India: 25 (ZISP) - „Rajastan, Jodhpur, Cazri Camp, 22-24.X.1989, A. Kompantzev, banana traps"; 2 (BMNH) - „Haldwani Div., Kumaon, H.G.C.", „H.G. Champion Coll."; 1 (NMB) - „7th mi. Kalimpong, 15.IV.86, 900m", „Darjeeling D., Ch.I. Rai"; 5 (SMNS) - „Tamil Nadu, Kadalkanai, Madurai, 28.8.1989, 1400 m, A. Riedel"; 3 (BMNH) - „Nilgiri Hills, A.K.W. Dawning";

Nepal: 1 (BPBM) - „Pokhara, 910 m, 18-27.IX.65", „L.W. Quate"; 7 (CNC) - „nr. Birganj Lothar, 450 ft, 29 Aug.-8.IX.1967, Can. Nepal Exped."; 2 (CNC) - „nr. Simra, Abhabhar, 600 ft, 23 Aug.1967, Can. Nepal Exped.";

Laos: 2 (ZISP) - „Boneng, 28.X.1984, O. Kabakov"; 1 (ZISP) - „Vientian, 30.X.1984, O. Kabakov"; 2 (ZISP) - „Vientian, Vattay, 5.I.1986, O. Kabakov";

Thailand: 1 (SMNS) - „28/6.93, 14.01N 99.31E, Kanchanaburi, 50 m, V. Kubán"; 13 (SMNS, ZISP) - „Chiangwat Chiang, Mai, 21-24.12.1988, 250 m, Trautner & Geigenmüller"; 1 (SMNS) - „Amphoe Wang, Chin Ban Den, 26-29.12.1988, 200 m, Trautner & Geigenmüller"; 16 (SMNS, ZISP) - „Amphoe Wang, Chiang, Dao, Doi, 9.1.1989, 1500 m, Trautner & Geigenmüller"; 1 (MHNG) - „Chiang Mai, Doi Suthep, 1150 m, Site B Fac.-Agr., 4.XI.1985, Burckhardt-Löbl"; 1 (MHNG) - „Mae Hong Son, Tom Lok, 8 km N Mae Lang, 700 m, 13.XI.1985, Burckhardt-Löbl"; 2 (TMB) - „Erawan N.P., Erawan Guest House", „at light, 15.II.1994, S. & L. Mahunka"; 1 (TMB) - „Kaeng Krachan N.P., Reservoir", „at light, 5.II.1994, S. & L. Mahunka";

Vietnam:130 (ZISP) - „400 m, Son Duong, khr. Tam Dao, lukovitzi (onions of) *Dillenia*, 24.II.1962, O. Kabakov"; 1 (TMB) - „Prov. Nghe-Au, forestiêre Guy-châu, 200 m, à la lumiere, forêt pluv. trop. semidecid, 25.8.1963, T. Pócs"; 2(ROM) - „Cao Bang: Ba Be Natl. Park, trail along south end of Lake Lake Ba Be, to ethnic village, 23-27 MAY 1995, C. Condy", „Pitfall traps (banana), on ground";

Malaysia: 1 (SMNS) - „Ulu, Gombak Station, 300 m, 15-20.10. 1988, W. Rohe"; 1 (USNM) - „Malaya, Pahang, Mt. Brinchang, Mar.20.1963, H.E. McClure"; 1 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „singled in and around town, 21-30.III.1995, O. Merkl"; 2 (TMB) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, 21.III-2.IV.1995, O. Merkl"; 9 (TMB, ZISP) - „Pahang, Pulau Tioman, 2 km S Kampung Juare, secondary growth", „swept & beaten, 15.III.1995, O. Merkl"; 6 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane rainforest, at light, 29. III.1995, O. Merkl & I. Szikossy"; 2 (TMB) - „Pahang, Pulau Tioman, Kampung Juare", „at light in the village, 9-17.III.1995, O. Merkl";

Taiwan: 1 (BMNH) - „Chusan Is., J.J.W." (? F. Walker);

Philippines: 4 (SMNS) - „Leyte, Visca, N Baybay, 1991, prim. forest, 200-500 m, Schawaller et al.", „22.2.1991" (8.3.1991, 11.3.1991);

Micronesia: 4 **paratypes** *E. (H.) barbula* (PBBM) - „Yap Is., Yap, VII-13.46", R.G. Cakley, 997" and about 30 **paratypes** deposited in FMC; 12 (USNM, ZISP) -"Mog Mog I., Caroline Is., F.N. Young, May 1945"; 11 (USNM, ZISP) - „Guam May 22, '18, K.L. Maehler"; 2 (USNM) - „Merizo, Guam, May 17, 1948", „K.L. Maehler Collector"; and also some thousands of specimens (BMNH, BPBM, CNC, DEI, FMNH, IRSN, MSNG, MAK, MHNG, MMUE, MNHN, NMB, NMW, NRS, RMNH, SMNS, URS, USNM, ZISP, ZMUC, ZMB, ZMMU, ZSM) from all zoogeographic regions (although from the Western Hemisphere only few specimens are known and none from the Patagonian region). One specimen caught in Washington was introduced from Taiwan or Japan - 1 (USNM) - „ex sugar-sake from Formosa, Japan, F.H.B. 24734, Wash., D.C., May 3, 18, A.C. Weigel".

D i a g n o s i s: This species is characterized by comparatively broad body with widely explanate pronotal and elytral sides and dark (up to black) pattern on pronotum and elytra. In contrast to other species of the genus possessing temples exposed beyond outer edge of eyes (in particular *E. (H.) concolor* and *E. (H.) luteola*), *E. (H.) ocularis* shows little variability in this feature and, therefore, some immature specimens can be identified due to it. The specimen from Chushan Island mentioned above (probably from the collection of F. Walker, BMNH) is unicoloured reddish with rather dull dorsal surface and with darkened antennal club, apices of fore tibiae and fore tarsi, but its body is rather broad with widely explanate sides and temples distinctly exposed beyond eyes. On the other hand, some specimens from Malaysia mentioned above has a completely dark pronotal disc and almost wholy dark elytra, except for light prescutellar area and feebly visible round spot in distal half of each elytron; in addition this specimen is rather large - 2.7 mm.

N o t e s: The author uses the synonyms taken from Junk's catalogue (Grouvelle, 1913a: 97), regarding them as quite reasonable for this rather variable species with very wide distribution. This species is so characteristic due to peculiar coloration that its numerous redescriptions can be easily recognized. The notable differences between typical *E. (H.) ocularis* and „true" *E. (H.) barbula* should be treated as popula-

tional. However, the type of coloration characterized for the Micronesian *E. (H.) barbula* occurs in other geographical regions, in partcular the specimen delivered in Washington (see above) has the same character of pigmentation, and other specimens from southern parts of the Polynesian region and New Caledonia demonstrate blackish elytral spots more acutely projecting forward than those in „true" *E. (H.) barbula*. Finally, the mentioned specimens from Malaysia characterized above can also be recognized rather as „*barbulus*" than „*ocularis*". Therefore, the author prefers to regard both forms as synonyms.

This species becomes more and more abundant to the south from Himalaya, but in the mountains it perhaps occurs mainly along the bottoms of valleys at low altitudes. It is known from different substrates of dead plants, more usually from flowers and fruits (such as, banana, papaya, breadfruit, pandanus and many others), although *E. (H.) ocularis* is common in different decaying vegetation on or in soil.

B i o n o m y: This species is recorded from different decaying substrates of dead plants; it usually inhabits in rotten fruits as bananas, papaya, breadfruits and so on; imagines of it are not infrequent visitors of flowers of trees and bushes. The larval development is recorded on fermenting fruits (peach, apple, orange etc.), in fruitbodies of tree-fungi and substrates like those, as well as decaying flowers. Imagines have been collected during the year round.

D i s t r i b u t i o n: Tropical regions of the Eastern Hemisphere, including the:

- Indo-Malayan region: India, Rajastan, Uttar Pradesh, Darjeeling, West Bengal, Sikkim, Assam, Kerala, Tamil Nadu; Nepal; Myanmar (Burma); Thailand; Laos; Vietnam; Sri Lanka [type locality of *E. (H.) tetragona* and *E. (H.) significans*]; Malaysia (continental and insular parts); throughout Indonesia and Papua New Guinea;
- Palaearctic region: African part of Mediterranean province, Japan, including Honshu and Kyushu [type locality of *E. (H.) thiemei*]; Korea; east northern, central and southern China, including Taiwan;
- Afrotropical region: Togo [type locality of *E. (H.) bifasciata*], Cameroon, Tanzania, Uganda, Zaire, Angola, Namibia, Malawi;

- Capean region: Republic of South Africa [„Caffraria": type locality of *E. (H.) bisignata* Boheman, 1851, not *Epuraea bisignata* Sturm, 1844];
- Madagascarean region: Madagascar [type locality of *E. (H.) decorata*], Réunion, Seychelles;
- Polynesian region: throughout Micronesia, including Mariana and Caroline islands [Ulithi: type locality of *E. (H.) barbula*]; Hawaii; Cook islands; Tahiti [type locality of *E. (H.) ocularis*] ;
- Australian region: Australia, Queensland;
- Novacaledonian region: New Caledonia;
- Introduction to USA from Taiwan or Japan has been recorded.

Epuraea (Haptoncus) pygidioacuta new species

Figs. 601-609; Map 3, c

Material -
total, 9, including holotype (TMB) and 8 paratypes (TMB, ZISP, collection of T.E. Leiler) -
Malaysia: **holotype**, male (TMB) & 4 **paratypes** (TMB, ZISP) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29. III.1995, O. Merkl & I. Szikossy"; 3 **paratypes** (TMB, ZISP) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, 21.III-2.IV.1995, O. Merkl"; 1 **paratype**, male (collection of T.E. Leiler) - „Malaysia, Brinchang, 1550 m, 6.2.1984, T.E. Leiler".

Description of holotype (male): Length 2.2, breadth 1.0, height 0.4 mm. Slightly convex dorsally and ventrally; light brownish with pale straw appendages; rather shiny; dorsum with very contrasting and sparse subrecumbent golden hairs, not longer than distance between their insertions, underside similarly pubescent, but of fine and moderately conspicuous hairs. Head and pronotal surface with very distinct punctures, nearly as large as eye facets, interspaces between them as broad as a puncture diameter or somewhat narrower, completely smooth or smoothly microreticulated and shiny. Elytral surface about as those on head and pronotum, but outline of somewhat smaller punctures less distinct, and interspaces between them markedly broader, almost smoothly alutaceous. Surface of pygidium with small distinct and dense punctation, with fine conspicuous microreticulation on interspaces between punctures. Ventral surface with small distinct punctures (prosternum with fine and dense transverse wrinkles), interspaces between them more or less smooth and shiny in the middle, and microreticulated at sides. Head flat with a pair of depressions between antennal insertions and somewhat shorter than the distance between rather large eyes; temples not extended beyond outer edge of eyes. Antennae 4/5 as long as head width, their club about twice as long as wide and comprising almost 1/3 total antennal length; antennal club about twice as long as wide. Pronotum and elytra with sides widely subexplanate; pronotum somewhat narrowed to base; elytral sides gently sloping, elytra 1.1 times as long as combined width, transversely truncate at apices. Pygidium with a truncate apex, from under which angular apex of anal sclerite is exposed. Distance between mid coxae slightly broader and that between hind ones about 2.5 times broader than that between fore coxae. Metasternum flattened, its hind edge between coxae shallowly angularly excised. Legs long and narrow with simple femora and tibia. Tibiae 3/5 as wide as antennal club. Fore tarsi moderately widened, a little narrower than corresponding tibiae; hind tarsi scarcely lobed; claws long and narrow, about twice shorter than tarsomere 5. Tegmen moderately sclerotized and penis trunk membranous.

Female: Differs from male in shape of pygidium transversely truncate at apex and with a sharp medial spine, slightly deviating dorsally.

Variations: Length 2.2-2.5 mm. The type series is slightly variable in coloration, punctation and sculpture of dorsum.

Diagnosis: *Epuraea (Haptoncus) pygidioacuta* new species is easily diagnosed by the gently vaulted dorsum, widely subexplanate pronotal and elytral sides, characteristic pronotum, short and very contrasting pubescence, shape of anal sclerite of male and pygidium of female. The characteristics of this species do not allow us to trace its relations with other members of the subgenus, but comparatively large eyes, distinct punctation, almost simple hind tarsomeres 1-3 are remi-

niscent of the species of *Tetrisus* [although hind tarsi of many species of *E. (Haptoncus)* have also narrowest and scarcely lobed tarsomeres].

Bionomy: Imagines of this species have been collected in rainforest within February-March.

Distribution: This species is known only from Malaysia, Malacca peninsula [Pahang (type locality: Cameron Highlands, Tanah Rata)] and ? Borneo („Brinchang").

Etymology: The name of this new species is created from the Latin „pygidium" and „acutus" (sharp, poignant).

III. Subgenus *Epuraea (Epuraea)* Erichson, 1843

=*Epuraea* Erichson, 1843: 267. Type-species: *Nitidula decemguttata* Fabricius, 1792, non *Nitidula decemguttata* Olivier, 1790 (designation by Parsons, 1943: 185) (see references to genus *Epuraea*).

Diagnosis: This group is the most variable among the genus as well as the tribe and subfamily. Indo-Malayan members of it can be diagnosed according to the key below. It is important to list the following features as characterstic for this subgenus: oval or elongate and usually gently convex body; head with slightly projecting labral lobes and moderate or small eyes composed of not large or rather small facets; pronotum frequently with emarginate fore and hind edges and with hind corners more or less distinctly projecting; usually with secondary sexual characters on legs (as a rule in mid tibiae and width of fore tarsi) and rarely in shape of elytra. Last labial palpomere is elongate, usually narrowed to apex. Many external and genital structures are sometimes rather variable between species of the subgenus and give few good characters for identification, although some groups of species consist of extremely similar members. Most species have simple tarsal claws, but some representatives of the *latissima*-group have a rather strong tooth at base [much stronger than in most members of *E. (Micruria)*]. In contrast to the *E. (Epuraeanella)* species, antennal grooves of the *E.*

(Epuraea) sensu stricto usually are weakly developed and postocular fossae are not distinct, but sometimes these structures are both present or one of them [in particular among species of the *birmanica*- and *pumila*-group, *E. (E.) funeraria* and *E. (E.) pallescens*].

Bionomy: This subgenus consists of species with extremely diverse bionomy and connected mainly with trees and bushes. They live mostly in different types of forest, brushwoods and cultural lands. Many species are most commonly found at oozing tree sap in the spring and under bark with fermenting sap or oozing cambial tissue. Other species are associated with fungal fruitbodies, decomposing grass or leaves and similar substrates of plant origin. Some species are known as predators on soft larvae of insects and other invertebrates under bark or in scolytid holes. Comparatively few representatives of this subgenus have more or less regular connections with flowers. Imagines of most species are active and larval development of them falls to late spring or early summer.

Composition and distribution: The subgenus consists of at least more than 200 existing species, although apart from the species considered in the present monograph, there are described only 62 species from the Palaearctic region, respectively, 27 from Nearctic, 4 from Australian, 3 from Novazealandian and 1 from Afrotropical regions. *E. (Epuraea) riedeli* new species has a combination of characters so different from those in all groups of the subgenus *E. (Epuraea)* sensu stricto that its placement in this taxon can be regarded as provisional (see diagnosis to the latter). Among the Indo-Malayan groups it is possible to define some more or less distinct groups of relatives, such as the

- *pumila*-group with slender and elongate body with rather conspicuous dorsal pubescence, antennal grooves and not infrequently with raised postocular fossae: *E. (E.) acea* new species, *E. (E.) acelsa* new species, *E. (E.) cameroni* new species, *E. (E.) contraria* new species, *E. (E.) cyclops* new combination, *E. (E.) pumila*, *E. (E.) tenuis*;
- *latissima*-group with oval and wide body as well as with pronotum widest at base: *E. (E.) aduncta*, *E. (E.) basisinuata*, *E. (E.) deterior*, *E. (E.) latissima*, *E. (E.) pliginskyi*;

- *indica*-group with oval and wide body as well as with pronotum arcuately narrower to base: *E. (E.) compacta* new species, *E. (E.) cribrata*, *E. (E.) indica* and, probably, *E. (E.) propingua*.

Other species are united into groups of similar forms without clear relations, such as the
- *aestiva*-group with moderately oval and rather convex body as well as with last antennomere larger than two preceding segments: *E. (E.) aestiva*, *E. (E.) titana* new species;
- *birmanica*-group with moderately oval and slightly convex body as well as with more or less distinct antennal grooves and postocular fossae: *E. (E.) birmanica*, *E. (E.) nepalica* new species, *E. (E.) subnitida* new species [with intermediate placement of *E. (E.) contraria* new species and *E. (E.) laeta* new species].

Some species have an obscure position among members of the subgenus. One of them is *E. (E.) laeta* new species which looks close to the *birmanica*-group, but is partly similar to species of the *indica*-group, partly to those of the *latissina*-group and, finally, partly to those of the palaearctic *E. (E.) silacea* (Herbst, 1784), *E. (E.) deleta* Sturm, 1844, *E. (E.) reichardti* Sjöberg, 1939. *E. (E.) championi* new species and *E. (E.) waterhousei* are similar to the palaearctic *laeviuscula*-group and nearctic *E. (E.) linearis* Mäklin, 1853. *E. (E.) longiungulata* new species, *E. (E.) propria* new species, *E. (E.) simplissima* new species and *E. (E.) sinicola* have some similarity to each other, but their kinship very questionable. Some species considered in this monograph are with indistinct position showing parallels with different groups. They are *E. (E.) funeraria* [although through *E. (E.) contraria* new species it is partly similar to the *pumila*-group], *E. (E.) polina* and *E. (E.) pallescens*.

Key to species of subgenus *Epuraea (Epuraea)* from the Himalayas and northern Indochina

1 **a**. Head, pronotal and elytral discs completely flat, sloping only just along sides; body twice as long as broad; pronotum subquadrate and with a shallowly emarginate fore edge; elytral apices separately rounded; punctation extremely fine and dense; pubescence comparatively short and dense; 1st segment of antennal club larger than 2nd and 3nd; tarsi very narrow. Male: mid tibiae with a slight dilation before apex. 3.0-3.3 mm. Figs. 265-272. „NW Himalayas" . . . . . *E. (E.) waterhousei* Grouvelle, 1908

1 b. Dorsum convex or flattened, but never completely flat; combination of characters different. 2

2 (1) a. Pronotum with truncate or subtruncate fore and hind edges; body slender, with subparallel sides and truncate or subtruncate elytral apices 3

2 (1) **b**. Pronotum with a clear emargination of fore edge (very shallow in *E. (E.) cameroni* new species, *E. (E.) contraria* new species, *E. (E.) cyclops*, *E. (E.) laeta* new species, *E. (E.) pumila* and *E. (E.) tenuis*). 4

3 (2) **a**. Body with blackish areas on head, pronotum and elytra and with darkened metasternum and abdomen; dorsum slightly shiny; dorsal punctation sparse, shallower and usually indistinct; pubescence long, dense and strongly conspicuous; postocular fossae not raised and antennal grooves slightly outlined. Male: mid tibiae with a slight subapical dilation along inner edge. 2.4-3.2 mm. Figs. 221-229. India, Himachal Pradesh, Uttar Pradesh; Nepal . . . . . *E. (E.) riedeli* **new species**

3 (2) b. Body unicoloured reddish; dorsum with more or less strongly shiny; dorsal punctation as a rule very dense, deep and rather distinct; pubescence moderately long and moderately conspicuous; postocular fossae and antennal grooves deep and distinctly outlined. Male: mid tibiae with a strong subapical dilation along inner edge. 1.9-3.5 mm. Figs. 180-181. ? North Vietnam and widely distributed in taiga and wooded zones of the Palaearctic and Nearctic regions, including also mountain regions of the Kazakhstan, Mongolia, Russian Far East, Japan and Korea . . . . . *E. (E.) pallescens* (Stephens, 1832)

4 (2) **a**. Tarsal claws with a distinctly sharp tooth at base; body rather broad and with unexplanate sides of pronotum 5

4 (2) **b**. Tarsal claws simple or slightly bulging at base; body diverse, more frequently with explanate and subexplanate sides of pronotum (except members of *latissima*-group, *E.(E.) birmanica* having broad body with unexplanate pronotal sides) 6

5 (4) **a**. Pronotum strongly flattened, widest at base, almost rectilinearly narrowed to apex; body brownish, usually with darkened elytral and abdominal apices; dorsum rather conspicuously sculptured; hind edge of metasternum angularly excised between coxae. Male: fore tarsi wider than fore tibiae; mid and hind femora with a tuberculate projection at distal half of hind edge; mid and hind tibiae somewhat curved. Female: pygidial apex widely rounded. 3.1-3.7 mm. Figs. 83-85. North Vietnam. . . . . *E. (E.) aduncta* Kirejtshuk, 1994

5 (4) **b**. Pronotum weakly but evenly vaulted; body unicoloured reddish or brownish; dorsum more shiny; hind edge of metasternum weakly and shallowly emarginate between coxae. Male: fore tarsi narrower than fore tibiae; mid and hind femora gently curved along hind edge; mid and hind tibiae slightly arcuately curved. Female: pygidial apex somewhat projecting and narrowly rounded. 3.1-3.5 mm. Figs. 182-184. Vietnam, Thailand . . . . . *E. (E.) pliginskyi* Kirejtshuk, 1994

6 (4) **a**. Postocular fossae clearly developed on lateral surface of epicranium 7

6 (4) **b**. Postocular fossae, if raised, only on ventral surface of epicranium (although *E. (E.) acea* new species and *E. (E.) acelsa* new species with deep fossae on ventral surface viewed as partly displaced on lateral surface) 12

7 (6) **a**. Body brownish to more frequently dark brown, rather convex and more slender (at least twice as long as wide) 8

7 (6) **b**. Body reddish, usually somewhat flattened or, if darkened, wide and weakly convex 9

8 (7) **a**. Smaller (2.5-2.8 mm); punctation on dorsum rather shallow, indistinct and very sparse; pubescence long, dense and strongly conspicuous; elytra truncate at apex; antennal grooves slightly outlined; mesosternum carinate; hind edge of metasternum almost straight. Male: mid tibiae simple. Female: unknown. Figs. 129-136. India, Darjeeling, Sikkim . . . . . *E. (E.) contraria* **new species**

8 (7) **b**. Larger (3.1-4.0 mm); punctation on dorsum more or less distinct (at least on pronotal disc and larger than eye facets); pubescence dense, short and moderately conspicuous; elytra with separately rounded apices; antennal grooves distinctly outlined; mesosternum uncarinate; metasternum deeply angularly excised. Male: mid tibia simple. Figs. 142-145. Khabarovsky and Primorsky krays, Japan, Korea, Eastern and South Eastern China, including Fujian . . . . . *E. (E.) funeraria* Reitter, 1884

9 (7) **a**. Body dark brown, less than twice as long as broad; dorsum rather shiny and with distinctly outlined and well deepened punctures; hairs on dorsum moderately conspicuous, a little longer than the distance between their insertions; pronotum with a rather deeply and archedly emarginate fore edge and widely explanate sides; prosternal process with a rounded hind edge; distance between hind coxae almost 3 times as broad as that between fore ones. Male: mid tibiae curved and strongly dilated before apex; pygidium with a widely rounded hind edge. 3.0 mm. Figs. 170-179. Nepal . . . . . *E. (E.) nepalica* **new species**

9 (7) **b**. Body lighter (reddish or light brownish); dorsum usually less shiny; prosternal process with truncate or subtruncate apex; pronotal sides moderately explanate or subexplanate; combination of other characters different 10

10 (9) **a**. Body more slender (less than twice as long as broad); dorsum comparatively shiny, with moderately shallow and not quite dis-

tinct punctation and hairs slightly longer than the distance between their insertions; pronotum with a moderately deeply and archedly emarginate fore edge and with sides as widely subexplanate as antennal scape; distance between hind coxae about twice as broad as that between fore ones. Male: mid tibiae curved before apex; pygidium with a widely rounded hind edge. 3.2 mm. Figs. 240-250. Nepal ..... *E. (E.) subnitida* **new species**

10 (9) b. Body more robust (as a rule, not less than twice as long as broad); hairs on dorsum moderately conspicuous, nearly twice as long as distance between their insertions; the distance between hind coxae more than twice as broad as that between fore ones 11

11 (10) a. Usually somewhat more robust and less convex; dorsum with more or less distinctly outlined and moderately deepened punctures (sometimes not quite distinct and somewhat shallow), shiny or with somewhat conspicuous microreticulation; pronotum with a moderately deeply and archedly emarginate fore edge and subexplanate sides; distance between hind coxae more than 3 times as broad as that between fore ones. Male: mid tibiae curved and slightly dilated before apex; pygidium with truncate hind edge. 2.5-3.9 mm. Figs. 90-103. India, West Bengal (including Darjeeling), Tamil Nadu; Bhutan; Myanmar (Burma); Vietnam; Malaysia, Pahang; China, Fujian; Taiwan (China) .... *E. (E.) birmanica* Grouvelle, 1892

11 (10) b. More slender and convex; dorsum with shallow, sparse and indistinct punctures; slight shiny, interspaces more or less smoothly microreticulated; pronotum with shallowly emarginate fore edge and narrowly explanate sides; distance between hind coxae about 2.5 times as broad as that between fore ones. Male: mid tibiae simple; pygidium with a truncate hind edge. 3.3-3.4 mm. Figs. 150-156. Nepal ..... *E. (E.) laeta* **new species**

12 (6) a. Body slender, subparallel, almost 2.5 times longer than broad, convex, with extremely narrowly explanate sides of pronotum and elytra, nearly unicoloured straw reddish; pronotum subquadrate with a shallowly emarginate fore edge; elytral apices separately and widely rounded; antennae much longer than head width; punctation on dorsum very fine and shallow; pubescence rather fine and slightly conspicuous. Male: hind tibia somewhat dilated before apex. 2.8 mm. Figs. 115-123. India, Uttar Pradesh ..... *E. (E.) championi* **new species**

12 (6) b. Body, if narrow, moderately convex and with moderately explanate sides of pronotum and elytra, or, if with narrowly explanate sides of them, much more robust and broader; combination of other characters different 13

13 (12) a. Body oval and rather broad; pronotum with subexplanate or very narrowly explanate sides 14

13 (12) b. Body more slender, elongate or, if somewhat robust, pronotal sides moderately or widely explanate 16

14 (13) a. Dorsum almost dull because of pubescence, with extremely dense and fine punctures (smaller than eye facets), smoothed interspaces, and with short and very conspicuous pubescence; distance between mid coxae much less than that between fore ones; hind edge of metasternum shallowly and archedly emarginate; antennal club much larger, scarcely longer than wide (more Nitidulin-like), nearly as wide as fore femur; body unicoloured straw reddish. Male: legs simple. Female: pygidial apex rather projecting posteriorly and subtruncate. 2.5-3.9 mm. Figs. 157-162. India, Uttar Pradesh; Thailand; Laos; Sri Lanka; Malaysia, Malakka; Indonesia, Sumatra, Java, Borneo; Taiwan ..... *E. (E.) latissima* Reitter, 1880

14 (13) b. Dorsum more or less shiny, with different punctation, sculpture and less conspicuous pubescence; distance between mid coxae much more than that between fore ones; hind edge of metasternum between coxae clearly angularly excised; antennal club much smaller, about 1.3 times as long as wide, markedly narrower than fore femur. 15

15 (14) a. Elytral sides more arcuate; pronotum widest at base, slightly

arcuately and almost rectilinearly narrowed to fore edge; labrum strongly projecting and very deeply excised; distance between mid coxae subequal that between fore ones; body straw unicoloured or with darkened base of head, pair of paramedial strips on pronotum and subsutural ones on elytra. Male: fore tarsi somewhat narrower than fore tibiae. Female: apices of pygidium and hypopygidium moderately rounded. 2.6-3.1 mm. Figs. 88-89, 610-616. Malaysia, Malacca peninsula and Borneo ..... *E. (E.) basinuata* Kirejtshuk, 1994

15 (14) b. Elytral sides slightly arcuate; pronotum subparallelsided at basal half; labrum slightly projecting and shallowly excised; distance between mid coxae much more than that between fore ones; light brownish with chestnut brown medial part of pronotum and major part of elytra (except prescutellar places). Male: unknown. Female: apices of pygidium and hypopygidium very widely rounded. 2.5 mm. Figs. 139-141. North Vietnam ..... *E. (E.) deterior* Kirejtshuk, 1994

16 (13) a. Last segment of antennal club much larger than two preceding ones taken separately; body comparatively robust 17

16 (13) b. Last segment of antennal club not larger and frequently smaller than 2 preceding ones taken separately 18

17 (16) a. Pronotum with a shallowly and arcuately emarginate fore edge; elytra about as long as combined width, with separately and widely rounded apices; labrum almost truncate; antennal grooves scarcely traced; distance between mid coxae slightly less than that between hind ones; hind edge of metasternum angularly excised; body unicoloured straw reddish. Male: unknown. 3.8-4.1 mm Figs. 257-264. China, Sichuan ..... *E. (E.) titana* **new species**

17 (16) b. Pronotum with trapezium-like emargination of fore edge; elytra longer than combined width, with suboblique apices, longest at suture; labrum moderately excised between lobes; antennal grooves more developed behind mentum; distance between mid coxae

about twice less than that between hind ones; hind edge of metasternum shallowly emarginate; body unicoloured reddish (more frequently bright reddish). Male: last segment of antennal club much wider than preceding one. 2.4-3.8 mm. Figs. 86-87. ? Thailand, widely distributed in the Holarctic regions, but not recorded in China ..... *E. (E.) aestiva* (Linnaeus, 1758)

18 (16) a. Body oval and robust (less than twice as long as wide), and in general larger (3.4-3.7 mm); pronotum with a deep trapezoidal-like emargination of fore edge and widely explanate sides; elytra not longer than combined width; hind edge of metasternum between coxae slightly emarginate, almost straight 19

18 (16) b. Body elongate (about twice as long as wide) and somewhat smaller (usually 2.1-2.7, or rarely up to 3.8 mm in *E. (E.) longiungulanta* new species, *E. (E.) propria* new species, *E.(E.) simplisima* new species, *E. (E.) sinicola*); pronotum with arched emargination of fore edge, or, if trapezoidal-like one, sides of it moderately explanate; elytra usually more than twice as long as wide combined; hind edge of metasternum between coxae frequently angularly excised 21

19 (18) a. Body rather darkened, only sides of pronotum and elytra, antennal stems (flagelli) and legs reddish; labrum very shallowly excised in the middle; pronotum widest at base; elytra with slightly arched sides and subtruncate apices; tarsal claws suberected; distance between hind coxae about twice broader than that between mid ones. Male: mid tibiae simple. 3.7 mm. Figs. 189-194. Myanmar (Burma) ..... *E. (E.) propingua* Grouvelle, 1906

19 (18) b. Body unicoloured reddish; labrum with a moderately deep excision in the middle; elytra with moderately arched sides; pronotum more or less narrowed at base; tarsal claws moderately raised and curved; distance between hind coxae almost 3 times more than that between mid ones 20

20 (19) a. Antennal club almost twice as long as wide; elytral apices subtruncate or almost truncate; labral lobes moderately wide; antennal grooves slightly outlined; dorsum slightly shiny. Male: unknown. 3.4 mm. Figs. 146-149. India, Karnataka ..... *E. (E.) indica* Grouvelle, 1894

20 (19) b. Antennal club not more than 1.5 times as long as wide; elytral apices obliquely truncate forming a blunt sutural corner; dorsum rather shiny; labral lobes somewhat narrowed; antennal grooves almost undeveloped. Male: unknown. 3.6-3.7 mm. Figs. 124-128. Nepal; North Vietnam ..... *E. (E.) compacta* **new species**

21 (18) a. Postocular fossae distinctly outlined on ventral side of epicranium; pronotum with an arched emargination of fore edge 22

21 (18) b. Postocular fossae undeveloped on ventral side of epicranium; pronotum with a trapizoidal-like or arched emargination of fore edge 25

22 (21) a. Dorsum unicoloured brownish or only with abdomen lighter, more shiny; labral lobes separately subacute; elytra about 1.3 times as long as combined width and with separately rounded apices; distance between mid coxae slightly less than that between hind ones; hind edge of metasternum distinctly angularly excised between coxae; dorsal pubescence comparatively very conspicuous, dense and long, with hairs, about twice longer than distance between their insertions. Male: mid tibiae strongly dilated before apex. 2.1-2.7 mm. Figs. 251-256. Pakistan, Punjab; Nepal ..... *E. (E.) tenuis* Jelínek, 1978

22 (21) b. Dorsum completely or mostly reddish, or brownish with reddish scutellum and a subsutural stripe on each elytron, with a weak fat sheen or iridescence; elytra not more than 1.1 times as long as wide combined, with truncate apices 23

23 (22) a. Body more slender and more convex, with 4 indistinct depressions on pronotum; dark brownish, with reddish edges of pronotum, scutellum, a subsutural stripe on each elytron, hypomera, epipleura, antennal stems (flagelli) and legs, or completely reddish; labral lobes subacute; pronotal sides about as widely explanate as antennal scape; mesosternum subcarinate; distance between mid coxae slightly less than that between hind ones; hind edge of metasternum distinctly angularly excised between coxae; dorsal punctation more distinct and hairs more than 1.5 times as long as distance between their insertions. Male: mid tibiae slightly dilated before apex; fore tarsi much narrower than corresponding tibiae. 2.7-3.2 mm. Figs. 104-114. India, Darjeeling, Sikkim ..... *E. (E.) cameroni* **new species**

23 (22) b. Body less slender and with somewhat flattened dorsum; coloration different; labral lobes separately rounded; pronotal disc even; mesosternum gently convex medially; hairs on dorsum slightly longer than distance between their insertions. Male: mid tibiae strongly and angularly dilated before apex 24

24 (23) a. Body unicoloured straw reddish; pronotum with a shallower emargination of fore edge, sides slightly narrowed at base and about as widely explanate as antennal stems (flagelli); apex of prosternal process nearly transverse; distance between mid coxae about 2.5 times more than that between hind ones. Male: fore tarsi slightly narrower than corresponding tibiae. 3.3 mm. Figs. 57-64, 70-72. India, Uttar Pradesh ..... *E. (E.) acea* **new species**

24 (23) b. Dorsum bright reddish with indistinct darkened areas on head and pronotum; underside, antennae and legs straw reddish; pronotum with a more deep emargination of fore edge, sides widest at base and about as widely explanate as antennal club; apex of prosternal process rounded, almost subangular; distance between mid coxae 1.5 times more than that between hind ones. Male: fore tarsi twice narrower than corresponding tibiae. 2.8 mm. Figs. 73-82. India, Uttar Pradesh ..... *E. (E.) acelsa* **new species**

25 (21) a. Tarsal claws about 1/2 as long as tarsomere 5; unicoloured reddish; pronotum with trapezium-like emargination of fore edge,

sides arcuately narrowed to base and about as widely explanate as antennal club; hind edge of metasternum almost archedly emarginate between coxae. Male: unknown. Female: hind femora with a blunt projection on hind edge in proximal half. 3.2-3.7 mm. Figs. 163-169. Nepal; North Vietnam ..... *E. (E.) longiungulata* **new species**

25 (21) **b**. Tarsal claws much shorter; pronotum less widely explanate (usually as widely explanate as antennal scape); coloration various. Female: hind femora gently curved along hind edge 26

26 (25) **a**. Labrum with very shallow excision between lobes; pronotum with slightly and arcuately emarginate fore edge; elytra only slightly longer than combined width; dark brown with a reddish joint oval spot on elytra behind scutellum; hind edge of metasternum distinctly angularly excised between coxae; dorsal punctation rather indistinct, pubescence rather long and strongly conspicuous. Male: mid tibiae simple. 2.1-2.5 mm. Figs. 137-138, 617-619. India, Darjeeling; Myanmar (Burma); Nepal; Bhutan ..... *E. (E.) cyclops* Jelinek, 1978

26 (25) **b**. Labrum with a moderately deep excision between lobes; pronotum with a trapezoidal excision of its fore edge; elytra 1.1-1.2 times longer than combined width; coloration different; pubescence never so long nor strongly conspicuous 27

27 (26) **a**. Body brownish to dark brown, sometimes with more darkened pronotal disc, elytral apices and abdomen; dorsum almost dull and with shallow indistinct punctation; hind edge of metasternum arcuately and shallowly emarginate between coxae; distance between hind coxae nearly 3 times as broad as that between mid ones. Male: mid tibiae slightly dilated before apex. Female: pygidial apex rather projecting backwards and subacute. 3.0-3.8 mm. Figs. 185-188. India, Darjeeling; Thailand; China, Fujian ..... *E. (E.) polina* Kirejtshuk, 1987

27 (26) **b**. Body reddish or with somewhat darkened pronotal disc and parts of elytra (except always light prescutellar regions), antennal stems (flagelli) and legs never darkened; dorsum moderately shiny and more clearly punctured; hind edge of metasternum distinctly angularly excised between coxae; distance between hind coxae not more than twice as broad as that between hind ones. Female: pygidial apex never acute or subacute 28

28 (27) **a**. Body smaller (2.4-3.4 mm) and more slender, straw reddish to light brownish, pronotal disc and elytra (except prescutellar parts) not infrequently somewhat darkened; elytra more or less suboblique or oblique with greatest length at suture; dorsum densely, more deeply, but indistinctly punctured; prosternal process with a widely rounded apex. Male: mid tibiae more or less dilated before apex; hind femur sometimes with a weak angular projection. Figs. 205-220. Pakistan, Punjab; India, Himachal Pradesh, Uttar Pradesh, Sikkim, Darjeeling; Nepal; Bhutan ..... *E. (E.) pumila* Grouvelle, 1897

28 (27) **b**. Body larger (3.2-3.8 mm) and more oval, unicoloured reddish; dorsum with sparser and shallower indistinct punctation; prosternal process with truncate or subtruncate apex 29

29 (28) **a**. Dorsal surface shiny and with hairs about 1.5 times as long as distance between their insertions; pronotum slightly narrowed to base and with a shallow trapezium-like emargination of its fore edge; elytra more than 2.5 times as long as pronotum, longest at suture and with subacute apices. Male: fore femur simple; hind femur narrower, with a small tubercle on hind edge in proximal half; hind tibia strongly dilated before apex. Female: unknown. 3.6 mm. Figs. 195-204. India, Sikkim ..... *E. (E.) propria* **new species**

29 (28) **b**. Dorsal surface almost dull; elytra less than 2.5 times as long as pronotum; combination of other characters different 30

30 (29) **a**. Pronotum slightly narrowed to base and with an arcuately emarginate fore edge; elytra with separately rounded apices. Male:

fore femur with a subbasal tooth at fore edge; hind femur simple; hind tibia strongly dilated before apex of its inner edge. 3.8 mm. Figs. in Jelínek, 1980: 1-9. China, Sichuan . . . . . *E. (E.) sinicola* Jelínek, 1980

30 (29) b. Pronotum distinctly narrowed to base and with deep trapezium-like emargination of its fore edge; elytra with truncate apices; hairs on dorsum more than twice as long as distance between their roots; distance between hind coxae about twice as broad as that between fore or mid ones. Male: fore femur simple; hind femur wider, with a prominent tubercle on hind edge in proximal half; hind tibia slightly concave along its inner edge. Female: unknown. 3.2-3.7 mm. Figs. 230-239. Nepal . . . . *E. (E.) simplissima* **new species**

Epuraea (Epuraea) acea new species

Figs. 57-64, 70-72; Map 3, d

Material-

India: **holotype**, male (BMNH) - „U.P., Chakrata Div., 7'-9000 ft, V.1928, H.G. Champion".

Description of holotype (male): Length 3.3, breadth 1.5, height 0.7 mm. Weakly convex dorsally and ventrally; unicolored reddish (almost straw coloured); dorsum rather shiny and ventral surface with a fat sheen; dorsum with recumbent, fine and slightly conspicuous yellowish hairs, somewhat longer (up to 1.5 times) than distance between their insertions, underside with somewhat sparser and less conspicuous hairs. Head surface with nearly distinct oval punctures not larger than eye facets, interspaces between them nearly 1/4-1/3 puncture diameter and with partly smoothed microreticulation. Pronotal surface nearly as that on head, but punctures somewhat larger and interspaces between them on disc up to half a puncture diameter or a little broader, with transversely undulate and dense microreticulation. Elytral surface with shallow, but quite distinct punctures almost as large as those on head, interspaces between them 1.5-2.0 puncture diameters and with smoothed microreticulation. Pygidium and ventrites (except 1st one) with smaller and denser punctures than on head and elytra, interspaces between them cellularly microreticulated. Prosternal surface with reduced punctation and obsolete sculpture. Surface of metasternum and 1st ventrite similar to that on pronotum, but punctures much sparser and microreticulation between them definitely cellular and smoothed in the middle. Head about 3/4 as long as distance between eyes, convex with a pair of small depressions at antennal insertions; eyes composed of moderately small facets. Antennae somewhat longer than head breadth, their club nearly 1/3 total antennal length. Pronotum moderately convex, gently and slightly sloping to sides which are narrowly explanate at edges [as widely as antennal stems (flagellum)]. Scutellum subtriangular with narrowly rounded apex. Elytra 1 1/6 times as long as combined width; sides gently sloping and distinctly explanate at edges (nearly as pronotal sides), apices separately rounded and subtruncate at suture. Pygidium completely exposed from under elytra and with a widely rounded apex, under which a very widely rounded apex of anal sclerite is exposed. Antennal grooves steeply convergent with distinct edge along entire length and each of them ending in an oval fossa behind mentum; a clear subtriangular postocular fossa not quite distinctly outlined behind each temple (visible from side and below). Mentum nearly 4 times as wide as long. Prosternal process along fore coxae strongly curved before nearly subcarinate apex, approaching the rather excavate surface of mesosternum. Distance between fore coxae a little narrower, and that between hind ones almost twice broader than that between mid coxae. Metasternum with a very shallow and wide medial depression with a suture along the middle in distal half before its hind edge, moderately emarginate between coxae. Ventrite 1 considerably longer than hypopygidium, the latter very widely rounded at apex. Epipleura a little wider than antennal club. Legs moderately raised. Tibiae narrower than antennal club, fore one weakly arcuate, mid one with a subapical sharp dilation on inner edge and hind one straight and narrowest. Femora with fore and hind edges gently convex, fore and mid ones nearly twice as wide as corresponding tibiae, but hind ones considerably wider. Fore tarsi 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws long and narrow, not toothed. Aedeagus well sclerotized.

Diagnosis: *Epuraea (Epuraea) acea* new species is well diagnosed by the configuration of its labral lobes, male mid tibia and aedeagus. This new species is somewhat larger and with quite characteristic male mid tibia in comparison with other species mentioned below. *E. (E.) acea* new species has the greatest resemblance among the Himalayan and Indo-Malayan species to *E. (E.) acelsa* new species with differences (except shape of male tibiae and male genitalia) in body size and shape (especially in pronotum), coloration (including light antennal club), punctation and microreticulation, contour of labral lobes, antennal scape and club and apex of prosternal process, distance between mid coxae, peculiarities of antennal grooves and postocular fossae.

E. (E.) acea new species is similar also to:

- *E. (E.) cameroni* new species, although with less slender body, lighter coloration, larger pronotum without small oval depressions on disc, sparser and finer punctation, shallower antennal grooves and not so large and not so sharply developed postocular fossae, shorter and wider prosternal process, considerably more separated coxae of each pair, mesosternum without a trace of medial carina, angular hind edge of metasternum between coxae and wider fore tarsi;
- *E. (E.) contraria* new species, but with more slender and less convex body having elytra narrower to apices, light coloration, a clear excision between labral lobes, distinctly explanate pronotal and elytral sides, much less dense, much shorter and less conspicuous pubescence, postocular fossae displaced on ventral surface of epicranium, convex hind edge of prosternal process and emarginate hind edge of metasternum between coxae;
- *E. (E.) cyclops* but, different in coloration, more distinct punctation on dorsum, shape of labral lobes, distinctly excised fore edge of pronotum, much longer elytra with more flattened apices (not so clearly sloping), distinct postocular fossae, wider and flattened prosternal process and incarinate mesosternum;
- *E. (E.) pumila* but, differs from it in light antennal club, sparser punctation on dorsum, not oblique elytral apices, quite different and distinctly outlined antennal grooves, expressed postocular fossae and almost abrupt apex of prosternal process;
- *E. (E.) tenuis* but, different in coloration and pubescence, more flattened elytral apices (not so clearly sloping), less projecting anteriorly and not so acute labral lobes, smaller postocular fossae, wider and flattened prosternal process and emarginate (not angularly) hind edge of metasternum between coxae.

Bionomy: Mode of life of this species remains unknown, but the holotype of it has been collected over 2000 m over sea level in late spring (May). It can be supposed that it is associated with mountain forest.

Distribution: This species is known only from its type locality: India, Uttar Pradesh (Chakrata).

Etymology: The Latin name of this new species means „additional".

Epuraea (Epuraea) acelsa new species

Figs. 73-82; Map 3, e

Material -

India: **holotype**, male (BMNH) - „W. Almora, Kumaon, India, H.G.C.", „H.G. Champion, B.M. 1953-156".

Description of holotype (male): Length 2.8, breadth 1.4, height 0.7 mm. Weakly convex dorsally and ventrally; bright reddish with slightly darkened antennal club, dorsal discs of head, pronotum and each elytron, with a pair paramedial blackish stripes on pronotum disjoined by a rather light stripe, also scutellum and subsutural parts of elytra rather light as well; dorsum faintly shiny, ventral surface greasy; dorsum with subrecumbent, fine and slightly conspicuous yellowish hairs, a little longer than the distance between their insertions, and the underside with sparser and less conspicuous hairs (coloration of pubescence depends on lighting and angle of viewing - light yellowish or very darkened). Head surface with rather distinct, oval and subcontiguous punctures nearly as large as eye facets, interspaces between them

with very smooth microreticulation. Pronotal and elytral surface nearly as that on head, but punctures somewhat larger and sparser with smooth interspaces along middle, but at sides punctures become indistinct and interspaces with extremely fine and dense microreticulation. Pygidium, ventrites and metasternum with punctures subequal with those on head and medial part of pronotum and elytra, interspaces between them a little less than a puncture diameter (although punctation on pygidium much denser) and rather smoothly microreticulated. Prosternal surface with shallower, finer and denser, but quite distinct punctation and cellular, dense and fine microreticulation. Head about 4/5 as long as the distance between eyes, convex, with a pair of small depressions at antennal insertions; eyes composed of moderately small facets. Antennae about 1 1/4 times as long as head breadth, their club nearly 1/4 total antennal length. Pronotum moderately convex with gently and slightly sloping sides, which are moderately subexplanate at edges [more than twice as widely explanate as antennal stems (flagellum)]. Scutellum subtriangular, with a narrowly rounded apex. Elytra about 1 1/5 times as long as combined width; sides gently sloping and distinctly explanate at edges [nearly 1.5 times wider than antennal stems (flagellum)], and with apices separately rounded. Pygidium not completely exposed from under elytra and with a subtruncate apex, under which a very widely rounded apex of anal sclerite is exposed. Antennal grooves rather deep, steeply convergent and sharply outlined along entire edges; a very large and comparatively deep subtriangular postocular fossa with sharp edges behind each temple (visible from below). Mentum subquadrangular and nearly 4 times as wide as long. Prosternal process along fore coxae strongly curved before nearly subcarinate apex, approaching the rather excavate surface of mesosternum. Distance between fore coxae a little narrower and that between hind ones almost twice broader than that between mid coxae. Metasternum with a very shallow and wide medial depression with a medial suture in distal half before its hind edge which is moderately emarginate between coxae. Ventrite 1 almost twice longer than hypopygidium, the latter very widely rounded in the middle of hind edge and subsinuate at sides. Epipleura a little wider than antennal club. Legs moderately raised. Tibiae narrower than antennal club, fore one weakly arcuate, mid one with scarcely developed subapical dilation on inner edge and hind one straight

and the narrowest. Femora with fore and hind edges gently convex, about 2.5 times as wide as corresponding tibiae. Fore tarsi 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws long and narrow, not toothed. Aedeagus well sclerotized. Ventral plate and *spiculum gastrale* as that in *E. (E.) acea* new species.

D i a g n o s i s: This new species is characterzed by a subtriangular scapus and comparatively long antennae. It is very similar to the preceding species [*E. (E.) acea* new species], but differs from it in smaller and more robust body with different pronotal shape, coloration (including dark antennal club), punctation and microreticulation, contour of labral lobes, scapus, antennal club and apex of prosternal process, peculiarities of antennal grooves and postocular fossae, level of development of sexual dimorphism in the shape of male mid tibia and apex of penis trunk.

Besides, *E. (E.) acelsa* new species is similar also to:

- *E. (E.) cameroni* new species, although this has a much more robust body with light coloration, gently curved fore edge of labral lobes, larger pronotum without small oval depressions on its disc, somewhat shallower and differently outlined antennal grooves and postocular fossae, shorter and much wider prosternal process, considerably more separated coxae of each pair, emarginate (not angular) hind edge of metasternum between coxae, much wider fore tarsi;
- *E. (E.) contraria* new species, but with less convex body from above, light coloration, a clear excision between labral lobes, distinctly explanate pronotal and elytral sides, much less dense, much shorter and less conspicuous pubescence, postocular fossae displaced on ventral surface of epicranium, convex hind edge of prosternal process, mesosternum without a trace of medial carina, emarginate hind edge of metasternum between coxae and slightly raised secondary sexual dimorphism in mid tibiae;
- *E. (E.) cyclops*, but different in coloration, more distinct and very dense punctation on dorsum, shape of labral lobes, distinctly excised fore edge of pronotum, much longer elytra with more flattened apices (not so clearly sloping), distinct postocular fossae, wider and flat-

tened prosternal process, incarinate mesosternum and scarcely dilated inner edge of male mid tibiae;
- *E. (E.) pumila*, but differs from it in more robust and bright reddish body, much denser punctation (including more or less clear punctures on prosternum), less conspicuous pubescence, not oblique elytral apices, quite different and distinctly outlined antennal grooves and developed postocular fosae;
- *E. (E.) tenuis*, but different in coloration and pubescence, more flattened elytral apices (not so clearly sloping), shape of labral lobes, smaller postocular fossae, wider and flattened prosternal process, emarginate (not angular) hind edge of metasternum between coxae, scarcely dilated inner edge of male mid tibiae.

B i o n o m y: The imagines of this species seem to have a similar bionomical peculiarities as those of the preceding species.

D i s t r i b u t i o n: This species is known only from its type locality: India, Uttar Pradesh (west of Almora).

E t y m o l o g y: The Latin name of this new species is formed from the name of the previous new species.

Epuraea (Epuraea) aduncta Kirejtshuk, 1994

Figs. 83-85; Map 4, a

=*Epuraea (Epuraea) aduncta* Kirejtshuk, 1994c: 93 (North Vietnam).

M a t e r i a l -
total 7, including holotype (ZISP - Kirejtshuk, 1994c) and 6 paratypes (BMNH, SMNS, TMB, ZISP - Kirejtshuk, 1994c).

D i a g n o s i s: This species being a probable member of *latissima*-group is similar to *E. (E.) pliginskyi* with tarsal claws and other joint features, but it differs from the last-mentioned species in body shape, strongly flattened pronotum, darker coloration and peculiar characters of sexual dimorphism in structure of femora and tibiae. Both species

have some resemblance to members of *indica*-group [see diagnosis to *E. (E.) compacta* new species], although their tarsal claws have a strong tooth at base and pronotum has a completely different shape.

B i o n o m y: According to observations of O.N. Kabakov, the imagines of this species have been collected within April-May in secondary rainforest on dry trunks of fallen trees.

D i s t r i b u t i o n: This species is known only after the type series from North Vietnam: Lang Chanh (type locality), Thai Nguyên (So'n du'o'ng) and Quy Châu („Song Con").

Epuraea (Epuraea) aestiva (Linnaeus, 1758)

Figs. 86-87

=*Silpha aestiva* Linnaeus, 1758: 574 (Europe); *Nitidula aestiva*: Fabricius, 1775: 77, nec *Nitidula aestiva* Herbst, 1784: 36, nec *Nitidula aestiva* Kugelann, 1792: 511, nec *Nitidula aestiva* Illiger, 1798: 385; *Anthribus testaceus* Olivier, 1789: 160, nec *Epuraea testacea* Rey, 1889: 4, nec *Haptoncus testaceus* Murray, 1864: 403; *Nitidula obsoleta* Herbst, 1793: 240 (Europe), non *Nitidula obsoleta* Fabricius, 1792: 256; Grouvelle, 1913a: 112; *Nitidula villosa* Thunberg, 1794: 70 (Europe); Grouvelle, 1913a: 112; *Nitidula depressa* Illiger, 1798: 386 (Europe), non *Haptoncus depressus* Grouvelle, 1897: 74, 75; Reitter, 1911: 31; Grouvelle, 1913a: 111; *Epuraea convexiuscula* Mannerheim, 1843: 255 (Sitka, Alaska); Grouvelle, 1913a: 111; *Epuraea ochracea* Sturm, 1844: 54 (Europe), non *Carpophilus ochraceus* Erichson, 1844: 260; Grouvelle, 1913a: 111; *Epuraea bisignata* Sturm, 1844: 80, non *Epuraea bisignata* Boheman, 1851: 565; Grouvelle, 1913a: 111; *Epuraea aestiva*: Erichson, 1845: 143; Horn, 1879: 299; Marseul, 1885: 51; Audisio, 1993: 326; *Epuraea depressa*: C.G. Thomson, 1862: 169; Reitter, 1911: 31; Grouvelle, 1913a: 111; Reitter, 1919: 66; Sjöberg, 1939: 119; Spornraft, 1967: 63; Audisio, 1980: 155; *Epuraea bipunctata*: Reitter, 1872, non Heer, 1841: 398; Grouvelle, 1913a: 111; *Epuraea (Epuraea) grandiclava* Roubal, 1939: 6; *Epuraea (Epuraea) depressa*: Grouvelle, 1913a: 111; Parsons, 1943: 204 (in North America to the South as Ca-

liformia, New Mexico, Texas and Florida; notes on types); Kirejtshuk, 1992: 154 (widely distributed in the Holarctic regions occuring far southwardly, but not recorded in Mongolia and China); *Epuraea (Epuraea) aestiva*: Hatch, 1961: 136; Audisio, 1993: 326 (also Azores, Northern Africa, Turkey, Northern Iran).

Material -
? **Thailand**: 1 male (ZMUC) - „Prae Siam, 1929-33, Paul Fogh", „Coll. Rosenberg";
and some thousands from the Palaearctic and Nearctic regions deposited in many collections.

Diagnosis: This species is well characterized by robust and rather convex body with narrowly explanate sides of pronotum and elytra, rather dense and more or less distinct punctation of dorsum, remarkable antennal club, lacking secondary sexual dimorphism in legs and peculiarities of aedeagal structures. Other diagnostic characters are listed in the above key. This species is similar and probably related to *E. (E.) titana* new species (see diagnosis on the latter).

Notes: The complete synonymy of this species can be compiled using some additional references given in the catalogue by Grouvelle (1913a) and monograph by Audisio (1993). The bibliography of this common palaearctic species is so immense, that it seems reasonable to restrict the references only to more or less urgent ones. Here some general references are given, but a more comprehensive knowledge on this species can be taken in monographs and reviews by Parsons (1943), Spornraft (1967), Kirejtshuk (1992), Audisio (1993) and others.

This quite common holarctic species inhabits very different ecological conditions and could occasionally be imported from northern countries [perhaps, as well as another holarctic species *E. (E.) pallescens* - see below], unless this record is due to a mistake in labelling. On the other hand, this specimen has the same poorer condition as that identified by the author as *E. (E.) polina* with the same label (see below).

Bionomy: The imagines of this species occur in different ecological conditions and different communities, frequently they are rather common visitors on flowers in spring, besides, they have been collected in nests of birds and mammals (hollows in trees and burrows), in decaying nests of bees, but very rarely under bark and other places like this where representatives of *E. (Epuraea)* sensu stricto are quite usual.

Distribution: This species is widely distributed almost throughout in the Palaearctic and Nearctic regions (see above references), however the record from Thailand is a result of human introduction or mislabelling (see above notes).

Epuraea (Epuraea) basisinuata Kirejtshuk, 1994

Figs. 88-89, 610-616; Map 4, b

=*Epuraea (Epuraea) basisinuata* Kirejtshuk, 1994c: 97 (Malaysia, Malacca peninsula and Sabah).

Material -
total, 5, including holotype (NMC - Kirejtshuk, 1994c) and 1 paratype (SMNS - Kirejtshuk, 1994c) -
Malaysia: 1 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29.III.1995, O. Merkl & I. Szikossy"; 2 (TMB, ZISP) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, N 72, 21.III-2.IV.1995, O. Merkl".

Variations: Additional specimens from Malaysia are in contrast to the types almost straw unicoloured and almost with uniform punctation on dorsal surface (smallest specimen is with length 2.6 mm).

Diagnosis: This species is well characterized by oval body with slightly and gently convex dorsum, rather fine and dense punctation, head with rather large eyes, labrum far projecting forward and with a comparatively deep medial excision, pronotum widest at bisinuate base and with hind corners projecting posteriorly, apex of tergite VII usually

exposed from under elytra, simple and narrow legs in females and males, narrow tarsal claws and very peculiar shape of tegmen.

B i o n o m y: The imagines of this species have been collected in mountain rainforest in March, April, August and October.

D i s t r i b u t i o n: This species is known only from Malaysia, Malacca peninsula [Pahang (Cameron Highlands, Tanah Rata)] and Borneo [type locality: Sabah („Bukit Monkobo")], and Indonesia, Sumatra (Genting Highlands).

Epuraea (Epuraea) birmanica Grouvelle, 1892
Figs. 90-103; Map 2, b

=*Epuraea (Epuraea) birmanica* Grouvelle, 1892a: 840 [Myanmar (Burma)]; *Epuraea (Epuraea) andrewesi* Grouvelle, 1908: 350, 352 (India, Madras, Nilgiri Hills), new synonym; *Epuraea (Epuraea) arcuata* Grouvelle, 1908: 350, 352 (India, Nilgiri Hils), new synonym, non *Haptoncus arcüatus* Gillogly, 1962: 169; Jelínek, 1978: 172 (Bhutan; note on paratype); *Epuraea (Epuraea) zurstrasseni* Kirejtshuk, 1987c: 67 (China, Fujian), new synonym.

M a t e r i a l -
total more than 100, including lectotype (BMNH) and 1 paralectotype (BMNH) of *E. (E.) andrewesi*; lectotype (MSNG) and 1 paralectotype (MSNG) of *E. (E.) birmanica*; Holotype (SMF) and 4 paratypes (SMF, ZISP) of *E. (E.) zurstrasseni*; -
India: **lectotype** *E. (E.) andrewesi*, male (BMNH) here designated and 1 **paralectotype**, female (BMNH) - „Nilgiri Hills, H.L. Andrewes", „1179", „*Epuraea andrewesi* ty. Grouv.", „Andrewes bequest"; 1 male (MNG) - „W. Bengal, Darjeeling Distr., Kalimpong, 1300 m, 11.X.78, Besuchet-Löbl"; 1 (BMNH) - „Fraserpet, Coorg, F.R.I., Sandal Insect Survey, 27.VI.30", „3083";
Myanmar (Burma): **lectotype** *E. (E.) birmanica*, male (MSNG) here designated and 1 **paralectotype**, female (MSNG) - „Carin-Chebá, 900-1100 m, L. Fea, V-XII.1988", „*Epuraea birmanica* ty. Grouv.";

Vietnam: 1 (ZISP) - „gory (mountains) 50 km NO Thai Nguyên, 28.X.1962, O. Kabakov"; 24 (SMNS, ZISP, ZMB) - ibid., „blossoming bushes, 2.03.1963, O. Kabakov"; 3 (ZISP) - „Tam Dao, 8.IV.1986, A. Gorokhov"; 1 (NMW) - „13.V-10.VI.1991, Tam Dao N.P., 75 km NW Hanoi, leg. E. Jéndek";
Malaysia: 1 (CMNO) - "Malay.: Selangor, Ulu, Gomgak, 15 mi N Kuala Lumpur, Uni. Mal. Fld. Stn., 9-14. XI. 1977, Barry Riedell";
China: 64 (MAK, ZISP) - „Kuatun (2300 m), 27,40 n.Br. 117,40 ö.L., J. Klapperich, 1938 (Fukien), 6-24.4.";
Taiwan (China): 1 (ZISP) - „Taiwan, 25.4.1977, Fenchihu, 1400 m, Klapperich";
and also specimens from Bhutan (NMB) named by J. Jelínek as *E. (E.) arcuata* (non Gilogly) Grouvelle, which were compared with the type series of the name lastly mentioned (Jelínek, 1978).

V a r i a t i o n s: The specimen originating from the Sandal Insect Survey (BMNH) has in contrast to other representatives of this species, rather dull dorsal surface and slender body. The few specimens from Vietnam (ZISP) are rather small and slightly curved mid tibiae in the males.

D i a g n o s i s: This species together with the type series of *E. (E.) zurstrasseni* is characterized by broadly separated mid coxae [quite unusual trait among the Epuraeinae and in particular for the members of subgenus *Epuraea (Epuraea)* sensu stricto] as well as by postocular fossae displaced on lateral side behind temples and almost not visible from below. Both „forms" externally resemble the species of *latissima*-group (Kirejtshuk, 1994b). Nevertheless, a close relationship of these two „forms" to *E. (E.) contraria* new species, *E. (E.) nepalica* new species and *E. (E.) subnitida* new species can be more supposed, because of reduced antennal grooves and postocular fossae located only on lateral sides of epicranium as well as general character of punctation and sculpture, type of sexual dimorphism in shape of mid tibiae and structure of aedeagus. At the same time, among these 4 probable relatives (*birmanica*-group) deep and sharply outlined postocular fossae are represented only in *E. (E.) subnitida* new species, but the remaining species have feebly and gently outlined edges of these fossae. On the

other hand, *E. (E.) contraria* new species has intermediate appearance to the *pumila*-group and a vicariant position to its probable palaearctic relative *E. (E.) funeraria* (see diagnoses of this species below). To this group of 4 probable relatives with postocular fossae on lateral surface of epicranium, *E. (E.) laeta* new species approaches, but has a rather convex body and distinctly carinate prosternal process strongly widened before apex.

All the species included in the *birmanica*-group are distinguishable after the following table:

- *E. (E.) birmanica*:
1. body usually much less than twice as long as wide;
2. reddish;
3. hairs on dorsum moderately conspicuous, nearly twice as long as distance between their insertions;
4. dorsum with more or less distinctly outlined and moderately deepened punctures (sometimes not quite distinct and somewhat shallow); shiny or with somewhat conspicuous microreticulation;
5. labrum moderately excised;
6. pronotum with moderately deeply and arcuately emarginate fore edge and subexplanate sides;
7. prosternal process with subtruncate hind edge;
8. distance between hind coxae more than 3 times as broad as that between fore ones;
9. male pygidium with truncate hind edge;
10. male mid tibiae curved and slightly dilated before apex;

- *E. (E.) contraria* new species:
1. body more than twice as long as wide;
2. light brown;
3. hairs on dorsum strongly conspicuous, more than twice as long as distance between their insertions;
4. dorsum with very shallow and indistinct punctures; nearly dull;
5. labrum shallowly excised;
6. pronotum with a shallow trapezium-like emargination at fore edge and with moderately explanate sides;

7. prosternal process with subtruncate hind edge;
8. distance between hind coxae a little more than twice as broad as that between fore ones;
9. male pygidium with truncate hind edge;
10. male mid tibiae simple;

- *E. (E.) laeta* new species:
1. body about twice as long as wide;
2. reddish;
3. hairs on dorsum slightly conspicuous, more than twice as long as distance between their insertions;
4. dorsum with shallow, sparse and indistinct punctures; slightly shiny and interspaces more or less smoothly microreticulated;
5. labrum nearly as that in *E. (E.) birmanica*;
6. pronotum with shallowly emarginate fore edge and narrowly explanate sides;
7. prosternal process with truncate hind edge;
8. distance between hind coxae about 2.5 times as broad as that between fore ones;
9. male pygidium with truncate hind edge;
10. male mid tibiae simple;

- *E. (E.) nepalica* new species:
1. body less than twice as long as wide;
2. dark brown;
3. hairs on dorsum moderately conspicuous, a little longer than distance between their insertions;
4. dorsum with distinctly outlined and well deepened punctures; shiny;
5. labrum moderately excised;
6. pronotum with rather deeply and archedly emarginate fore edge and widely explanate sides;
7. prosternal process with a rounded hind edge;
8. distance between hind coxae almost 3 times as broad as that between fore ones;
9. male pygidium with widely rounded hind edge;
10. male mid tibiae curved and strongly dilated before apex;

- *E. (E.) subnitida* new species:
1. body as in *E. (E.) contraria* new species;
2. reddish;
3. hairs on dorsum slightly longer than distance between their insertions;
4. dorsum with moderately shallow and not quite distinct punctation; shiny;
5. labrum as in *E. (E.) birmanica* and *E. (E.) nepalica* new species;
6. pronotum as in *E. (E.) birmanica*;
7. prosternal process with truncate hind edge;
8. distance between hind coxae about twice as broad as that between fore ones;
9. male pygidium as in *E. (E.) nepalica* new species;
10. male mid tibiae curved before apex;

Notes: Synonymy of *E. (E.) birmanica*, *E. (E.) andrewesi* and *E. (E.) arcuata* has become quite evident after a study of a lots of specimens which should be regarded as members of this widely distributed and rather variable species. The type specimens of *E. (E.) birmanica* are somewhat smaller and have an abnormally slender body (lectotype - length 3.1, breadth 1.5 mm and studied paratype - 3.3 and 1.4 respectively) than most specimens, and therefore look like a slightly different species with male genital structures similar to *E. (E.) arcuata* (known to me after specimens named by J. Jelínek). Nevertheless, variability of specimens from Fujian allow us to suppose that the three type series belong to the same species. Finally, the body size of the type specimens of *E. (E.) andrewesi* somewhat larger than average for the species, elytral sides less curved, aedeagus of the lectotype of *E. (E.) andrewesi* rather sclerotized and with a more acute apex of the penis trunk. The type specimens of *E. (E.) zurstrasseni* from Fujian in many external features is quite similar to the most normal specimens but with a little different female pygidium and forked ovipositor apex; male hind tibia of these specimens has a small process along inner edge before apex. Nevertheless, although the author at present regards all himalayan, chinese and indochinese specimens studied by him at least as the same species, a future separation into subspecies might be possible.

Bionomy: The imagines of this species seem to be usual for the territory under consideration and have been collected in primary mountain forest and tropical rainforest (mostly in mountains at elevation between 1 000 and 2 500 m above sea level), nearly during the year round, at least within February-July and in October. Appearance of its imagines allows to us to suppose for this species some connections with flowers (probably of trees and bushes).

Distribution: This species has a chinese-himalayan range and recorded from the northern continental part of the Indo-Malayan region and can be considered as a typical representative of the Himalayan-Burmanian-Yunnanian faunistic block: India, including West Bengal (Darjeeling District, Kalimpong), Tamil Nadu [Nilgiri Hills: type locality of *E. (E.) andrewesi* and *E. (E.) arcuata* and Madras]; Bhutan, Sampa-Kotoka; Myanmar (Burma), Karen State („Carin-Chebá") [type locality of *E. (E.) birmanica*]; Vietnam, Thai Nguyên, Tam Dao (including Tam Dao National Park); Malaysia, Pahang; China, Fujian („Kuatun" = Aotou), including islands near Taiwan („Fenchihu").

Epuraea (Epuraea) cameroni new species

Figs. 104-114; Map 4, c

Material -
total 2, holotype (BMNH) ana 1 paratype (NMB) -
India: **holotype**, male (NHL) - „Darjeeling, Ghoom", „Ghum Distr., V-VI-31, Dr. Cameron"; 1 **paratype** female (NMB) - „Deehiling, 1200 m, 29.IV.1984", „E. Sikkim, C.J. Rai".

Description of holotype (male): Length 2.7, breadth 1.3, height 0.7 mm. Moderately convex dorsally and ventrally; dark chestnut brown with reddish mouth parts, antennal stems (flagelli), edges of pronotum, scutellum, explanate sides and subsutural stripes on elytra, hypomera, epipleura and legs; rather shiny dorsally and ventrally; dorsum with subrecumbent, fine and moderately conspicuous yellowish hairs, a little longer than distance between their insertions; underside with somewhat sparser and more recumbent hairs. Head surface with rather

distinct, oval and comparatively deep punctures nearly a little larger than eye facets, interspaces between them 1/5-1/3 puncture diameter, with very smooth microreticulation. Pronotal and elytral surface nearly as on head, but punctures somewhat larger, much shallower and sparser with smooth interspaces broader than half a puncture diameter. Pygidial surface partly similar to that on head, but interspaces with distinct and contrasting microreticulation. Ventrites and metasternum with punctures subequal to those on pronotum and elytra, but interspaces between them broader than half and a little narrower than a puncture in diameter, microreticulated as pygidium. Prosternal surface with rather distinct, large and dense punctation and cellular, dense and fine microreticulation. Head about 6/7 as long as distance between eyes, convex with an arcuated depression behind antennal insertions and continued along eyes; eyes composed of moderately small facets. Antennae about 1 2/7 times as long as head breadth, their club nearly 2/7 total antennal length. Pronotum moderately convex, with gently and slightly sloping sides moderately explanate at edges (nearly as widely explanate as antennal scape) and with a pair of shallow oval depressions at scutellum. Scutellum subtriangular, with a widely rounded apex. Elytra barely longer than combined width; sides gently sloping and distinctly explanate at edges [nearly as wide as antennal stem (flagellum)], apices separately rounded. Pygidium not completely exposed from under elytra and with a truncate apex, under which a very widely rounded and subtruncate apex of anal sclerite is exposed. Antennal grooves rather deep, steeply convergent and sharply outlined along entire edges; a very large and rather deep subtriangular postocular fossa, with sharp edges behind each temple (visible from below). Mentum with rounded sides and more than 4 times as wide as long. Prosternal process along fore coxae strongly curved before subcarinate apex and approaching the rather excavate surface of mesosternum. Distance between fore coxae 1.5 times narrower, between hind ones 1.5 times broader, than that between mid coxae. Metasternum with very shallow and wide medial depression, with a suture along the middle in distal half before its hind edge; its hind edge with a not deep angular excision between coxae. Ventrite 1 about 1.5 times longer than hypopygidium, the latter bisinuate along hind edge. Epipleura a little wider than antennal club. Tibiae narrower than antennal club, fore one weakly arcuate, mid one with a

scarcely developed subapical dilation on inner edge, hind one straight and narrow. Femora with fore and hind edges gently convex, fore and mid ones twice and hind ones about 2.5 times as wide as corresponding tibiae. Fore tarsi 1/2 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws long and narrow, not toothed. Aedeagus well sclerotized.

F e m a l e: Length 3.2, breadth 1.3, height 0.6 mm. Many characters of this specimen coincide with those of the holotype, in particular, general outline of body, shape of labrum, punctation on prosternum and transverse depression before pronotal base (divided in the holotype into two oval smaller depressions). This specimen is also distinct from it in unicoloured reddish body (in spite of completely immature appearance of it), a little more gentle outline of pronotal sides, not so deep antennal grooves, distance between mid coxae and much sparser punctation on metasternum. Pygidial apex of this female narrowly and hypopygidial one widely, rounded.

D i a g n o s i s: *Epuraea (Epuraea) cameroni* new species has very distinct punctation on prosternum, as raised as that on dorsum and rather concave dorsal surface of epicranium. The dorsal pubescence of this new species looks somewhat like that in the palaearctic *E. (E.) variegata* (Herbst, 1793). This new species can be characterized also by the rather depressed dorsal surface of head, two pairs of weak depressions on pronotum (one at fore edge and second opposite scutellum), very deep and large postocular fossae, rather narrow fore tarsi in male and aedeagal structure. However, since some specimens of *E. (E.) tenuis* have on the pronotal disc similar depressions to those of the holotype of the species under consideration, this feature can not be quite reliable for diagnosis and characterization of *E. (E.) cameroni* new species. Nevertheless, this new species can be compared with other indo-malayan species with slender elongate body (*pumila*-group) differing from:

- *E. (E.) acea* new species in more slender body, coloration, character of punctation and sculture, denser and shorter subrecumbent dorsal pubescence, subacute labral lobes, more depressed dorsal surface of head, deep and large postocular fossae, subcarinate prosternal pro-

cess, distinctly angularly excised hind edge of metasternum between coxae and weakly curved inner edge of male mid tibia before apex;

- *E. (E.) acelsa* new species in much more slender body with darker coloration, somewhat coarser and more sparse punctation of dorsum, subacute fore edge of labral lobes, more depressed dorsal surface of head, deeper and differently outlined antennal grooves and deeper postocular fossae, longer, narrower and subcarinate apex of prosternal process and less broadly separated coxae of each pair and angularly excised hind edge of metasternum between coxae;
- *E. (E.) contraria* new species in less convex and more slender body, peculiarities of coloration and pubescence, a clear excision between labral lobes, more depressed dorsal surface of head, distinctly explanate pronotal and elytral sides, postocular fossae displaced on ventral surface of epicranium, mesosternum without a trace of medial carina, angularly excised hind edge of metasternum between coxae and slightly raised secondary sexual dimorphism in mid tibiae;
- *E. (E.) cyclops* in more slender and less convex body, different coloration and pubescence, more distinct and very dense punctation on dorsum, shape of labral lobes, more depressed dorsal surface of head, distinctly excised fore edge of pronotum, elytra longer and more narrowed to apices, deep and sharply outlined antennal grooves, distinct and rather deep postocular fossae, swollen medial carina on mesosternum and scarcely dilated inner edge of male mid tibiae;
- *E. (E.) pumila* in more slender and darker body, subacute fore edge of labral lobes, not oblique elytral apices, more depressed dorsal surface of head, quite different and distinctly outlined antennal grooves, very deep and large postocular fossae, narrower subcarinate apex of prosternal process with angular hind edge and angularly excised hind edge of metasternum between coxae;
- *E. (E.) tenuis* also in different coloration, shorter and subrecumbent pubescence, more flattened elytral apices (not so clearly sloping), somewhat thicker antennal scape, deeper and larger postocular fossae and weak dilatation on inner edge of male mid tibiae before apex.

B i o n o m y: The type specimens have been collected within April-June, probably in mountain forests over 1000 m above sea level.

D i s t r i b u t i o n: This species is known only from India, West Bengal [Darjeeling, („Ghoom" in Ghum District: type locality)] and eastern Sikkim („Deehiling").

E t y m o l o g y: This new species is named in honour of Dr. M. Cameron, who collected many interesting specimens in Northern India.

Epuraea (Epuraea) championi new species

Figs. 115-123; Map 4, d

M a t e r i a l -

India: **holotype,** male (BMNH) - „Chakrata, Jaunsar, H.G.C.", „H.G. Champion Coll."

D e s c r i p t i o n of holotype (male): Length 2.8, breadth 1.0, height 0.7 mm. Rather convex above and below; reddish with chestnut brown pronotal disc, elytra, metasternum, ventrites and antennal club; dorsum with a fat lustre, ventral surface rather shiny medially; dorsum with recumbent, fine and moderately conspicuous yellowish hairs, 1.5 times longer than distance between their insertions; underside with somewhat sparser and shorter recumbent hairs, scarcely longer than distance between their insertions. Head surface with rather distinct, oval and rather deep punctures, a little larger than eye facets, interspaces between them 1/5-1/3 puncture diameter, with very smooth microreticulation. Pronotal and elytral surface nearly as on head, but punctures somewhat larger, shallower and sparser, with smooth interspaces somewhat broader than half a puncture diameter. Pygidial surface nearly as that on head, but punctures shallower and interspaces between them with distinct and dense microreticulation. Ventrites and metasternum with punctation subequal to that on pronotum and elytra, but interspaces between punctures up to one puncture diameter and a little more, with smooth and dense microreticulation, or nearly smooth in the middle of sclerites. Prosternal surface with not quite distinct, large and dense punctures and transversely undulate, dense microreticulation. Head hardly longer than distance between eyes, convex with a shallow depressi-

on between antennal insertions; eyes composed of moderately small facets. Antennae about 1 1/7 times as long as head breadth, their club nearly 2/7 total antennal length. Pronotum rather convex, gently and moderately sloping to sides, rather narrowly explanate at edges [nearly as widely explanate as antennal stems (flagelli)], lateral borders continuing on base at hind corners and disappearing at scutellum. Scutellum subtriangular with widely rounded apex. Elytra about 1.5 times as long as combined width; their sides almost vertically sloping and exceptionally narrowly explanate at edges, apices separately rounded, forming a clear sutural corner. Pygidium not completely exposed from under elytra and with a truncate apex, under which a moderately widely rounded apex of anal sclerite is exposed. Antennal grooves gently deepened, convergent and indistinctly outlined; postocular fossae untraceable, but temples with an angular prominence (visible from below). Mentum with rounded sides and more than 4 times as wide as long. Prosternal process along fore coxae strongly curved before slightly convex and approaching the rather excavate surface of mesosternum. The distance between fore coxae almost 1.5 times broader, between hind ones a little broader, than that between mid coxae. Metasternum with a shallowly depressed medial suture in distal half before its hind edge, which is rather deeply angularly excised between coxae. Ventrite 1 nearly twice longer than hypopygidium, latter with a truncate apex. Epipleura scarcely wider than antennal club. Tibiae narrower than antennal club, more or less straight, fore tibia with a raised subapical tooth and mid one with a moderately developed subapical dilation on inner edge. Femora with fore and hind edges gently convex, about twice as wide as corresponding tibiae. Fore tarsi 2/5 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws rather long and narrow, not toothed (a little less than 1/2 as long as tarsomere 5). Aedeagus well sclerotized.

D i a g n o s i s: This new species is well diagnosed among the Indo-Malayan members of the subgenus by a comparatively elongate body, rather convex dorsum and exceptionaly narrowly explanate pronotal and elytral sides. All the mentioned features give grounds to link it to the palaearctic *laeviuscula*-group of species [*E. (E.) deubeli* Reitter, 1896; *E. (E.) laeviuscula* (Gyllenhal, 1827); *E. (E.) mestsheryakovi* Kirejtshuk, 1992; *E. (E.) pseudorapax* Kirejtshuk, 1995; *E. (E.) rapax* Reitter, 1884; *E. (E.) rufobrunnea* Sjöberg, 1939] and nearctic *E. (E.) linearis* Mäklin, 1853, with its shape of pronotum more similar to that in *E. (E.) pseudorapax* and *E. (E.) rapax* and narrowly explanate pronotal and elytral sides to other representatives of the group. However, this new species is distinct from all the mentioned representatives by the narrowest distance between hind coxae and comparatively narrow legs (in particular tibiae). Besides, *E. (E.) championi* new species manifests the most resemblance to *E. (E.) deubeli*, differing from it in darker coloration, details of pronotal and elytral shape, more distinct and coarser punctation. The new species also resembles *E. (E.) mestsheryakovi*, but is well distinct from it by more slender and parallelsided body, longer elytra, narrower explanation of pronotal and elytral sides, and coarser and more distinct punctation.

B i o n o m y: It is supposed that mode of life of this species is similar to those of compared species (mentioned above in diagnosis) and connected with habits situated under bark.

D i s t r i b u t i o n: This species is known only from India, Uttar Pradesh (Chakrata: type locality).

E t y m o l o g y: This species is named in honour of H.G. Champion whose material has made a considerable contribution to this work.

Epuraea (Epuraea) compacta new species

Figs. 124-128; Map 4, e

M a t e r i a l -
total 2, holotype (ZISP) and 1 paratype (SMNS) -
Vietnam: **holotype**, female (ZISP) - „mountains, 50 km NO Thai Nguyên, 300 m, 9.01.1964, Kabakov";
Nepal: 1 **paratype**, female (SMNS) - „319 Ilam Distr., Mai Pokhari, 2100-2200 m, *Castanopsis* forest remants, 9-10 April 1988, J. Martens & W. Schawaller".

Description of holotype (male): Length 3.6, breadth 2.0, height 1.0 mm. Moderately convex dorsally and ventrally; nearly unicoloured reddish with slightly darkened antennal club, but pronotal sides, prothorax and epipleura somewhat paler; rather shiny; dorsum with moderately long and thin, subrecumbent, well conspicuous, golden hairs, 1.5 times longer than distance between their insertions; ventral surface with shorter and thinner, slightly conspicuous yellowish hairs. Head and pronotal surface with distinct punctures, about twice larger than eye facets, interspaces between them 1/3-1/2 puncture diameter, nearly smooth. Elytral surface with less distinct and shallower punctures, interspaces between them a little narrower than a puncture diameter, rather smooth. Pygidial surface with very dense punctures, larger and deeper than those on other sclerites, narrow interspaces between them rather smooth. Ventral surface with shallow, not always certainly outlined punctures (which a little smaller than those on head and pronotum), interspaces between punctures half to one puncture diameter, but at sides much narrower, smooth, although surface of last three ventrites with small, dense and distinct punctures, nearly as large as eye facets, interspaces between them about half a puncture diameter. Head flattened, with small semicircular depressions, each of them situated along antennal insertion and eye edge. Mandibles not exposed from under fore edge of labral lobes. Last segment of labial palpi as long as thick at base, slightly narrowed to transverse apex. Last segment of maxillary palpi nearly 2.5 times as long as thick. Antennal grooves depressed only at sides of mentum, not outlined. Antennae slightly longer than head breadth; their club comprising 2/7 total antennal length, 1 2/3 times as long as wide and with 10th segment slightly wider than both 9th and 11th. Pronotun with strongly convex disc and widely explanate sides. Scutellum almost semicircular. Elytra with sides moderately steeply sloping to narrowly explanate edges [as narrow as antennal stems (flagelli)], and with oblique apices forming a wide sutural angle. Pygidium flattened before a widely rounded, almost transverse apex. Distance between mid coxae slightly broader, but distance between hind ones 2.5 times broader than that between fore coxae (the latter as wide as antennal scape). Prosternal process strongly widened before apex and approaching mesosternal surface. Mesosternum strongly excavate and slightly medially bulging. Metasternum slightly convex and with a fairly

well expressed medial line, its hind edge between coxae scarcely emarginate. Caudal marginal line behind mid coxae follows closely hind coxal edge. Ventrite 1 nearly as long as 3 and 4 combined, hypopygydium longest among ventrites, subtriangular. Epipleura comparatively wide, about as wide as antennal club length. All tibiae very narrow, markedly narrower than antennal club; fore with a visible weak subapical tooth, mid and hind with subapical setae. Femora 2.5 times as wide as tibiae, with a gently rounded outline, but with narrow base and apex. Tarsi narrow and subequal, nearly as wide as 2d antennal segment, claws simple and narrow. Ovipositor weakly sclerotized.

Variation: The paratype is as large and coloured as the holotype, but pronotal disc with two small indistinct slightly darker spots approaching each other, each elytral disk also indistinctly darkened. Elytral surface with indistinct punctures, appearing rasp-like, microsculpture more or less alutaceous to densely microreticulated; pygidial surface with smaller punctures than those on head and pronotum, narrow interspaces between them with dense microreticulation; ventral surface with small, sparse and indistinct punctures, the wide interspaces between them more or less smooth, although at sides microreticulation and alutaceous microsculpture are rather distinct; only hypopygidium as punctured as pygidium, with smooth interspaces.

Diagnosis: This new species is easily distinguishable from *E. (E.) cribrata* in its paler coloration, semicircular scutellum, elytra as long as combined width, finer punctation. This species together with *E. (E.) cribrata*, *E. (E.) indica* and, apparently, *E. (E.) propingua* form a group of closely related species (*indica*-group) which seems to have phylogenetic connections closer to the subgenus *E.* (*Epuraeanella*) than to *E.* (*Epuraea*) sensu stricto (depressed pronotal disc, prosternal process strongly widened before apex, shallowly emarginate hind edge of metasternum between hind coxae, which are widely separated, some structural peculiarities of antennal grooves and aedeagus etc.). *E. (E.) compacta* new species is more similar to *E. (E.) indica*, but differs from it in the antennal grooves not outlined, semicircular depressions on head, shape of scutellum and elytral apices, less separated mid coxae, weak subapical tooth or seta on tibiae. Both are quite easily distinguished

from *E. (E.) propingua* by light coloration and much more arched sides of pronotum and elytra, characters of punctation and sculpture, and the first of them also in shape of antennal grooves. The considered new species is also externally similar to *E. (E.) laeta* new species, although it differs from it in angularly excised fore edge of pronotum, almost undeveloped antennal grooves, greater distance between hind coxae and configuration of hind edge of metasternum.

Bionomy: This species has been collected in forest of North Vietnam in January and Nepal in April.

Distribution: This species is known only from North Vietnam, Thai Nguyên (type locality) and eastern Nepal, Ilam District (Mai Pokhari).

Etymology: The Latin name of this new species means „solid, firm, strong".

Epuraea (Epuraea) contraria new species

Figs. 129-136; Map 5, a

Material -
total 3, including holotype (ZSM) and 2 paratypes (BMNH, ZISP) -
India: **holotype**, male (ZSM) and 1 **paratype**, male (ZISP) - „Darjeeling, W.B., Tiger-Hill, 2595, VI.1961, G. Scherer";
1 **paratype**, male (BMNH) - „Sikkim, Lanchung, 8610 ft, 20.II.1952", „T. Cley", „From moss on rotten trunk Pine wood".

Description of holotype (male): Length 2.7, breadth 1.3, height 0.7 mm. Moderately convex dorsally and ventrally; brownish, with translucent pronotal and elytral sides, prosternum, antennal stems (flagelli), mouth parts and legs lighter (almost reddish); dorsum slightly shiny, ventral surface moderately shiny; dorsum with recumbent or subrecumbent, long and rather conspicuous yellowish silvery hairs, about twice as long as distance between their insertions, underside with much shorter, thinner, sparser and less conspicuous hairs. Head surface with

very shallow, scarcely outlined and oval punctures nearly as large as eye facets, interspaces between them somewhat narrower than a puncture diameter and with rather smooth microreticulation. Pronotal surface nearly as on head, but punctures at sides much larger than eye facets, interspaces between them about half a puncture diameter or somewhat broader and with more developed microreticulation. Elytral surface with punctures more distinct and a little larger than those on head, but interspaces between them finely microreticulated. Surface of pygidium and hypopygidium nearly as that on elytral apices, but with more distinct, a little smaller and denser punctures. Ventral surface with indistinct and shallow punctures (on the middle of metasternum covered with distinct tubercles, which are risen instead of punctures), interspaces between punctures on prosternum with rather dull microreticulation, although those in the middle of metasternum and first ventrites more or less smooth. Head about 3/4 as long as distance between eyes, flattened; eyes composed of moderately small facets. Mandibles slightly exposed before labrum. Antennae considerably longer than head breadth, club nearly 1/3 total antennal length. Pronotum moderately convex with gently and slightly sloping sides, widely explanate at lateral edges. Scutellum subtriangular, with narrowly rounded apex. Elytra 1 1/5 times as long as combined width; sides gently sloping to narrowly explanate edges [about twice as widely explanate as antennal stems (flagelli)] and with transversely subtruncate apices. Only truncate apex of pygidium exposed from under elytra, under which a slightly angular apex of anal sclerite is exposed. Antennal grooves sharply convergent and well outlined; slight postocular depression on ventral surface of epicranium and a clear elongate postocular fossa behind each temple on lateral surface. Prosternal process strongly curved along fore coxae before its roof-like apex and approaching the rather excavate surface of mesosternum (shaped nearly as in *E. compacta* new species). The distance between fore coxae a little narrower and that between hind ones nearly 1.5 times broader than that between mid ones. Mesosternum with slight swollen medial carina. Metasternum with a medial furrow in bottom of a shallow and elongate depression, hind edge between coxae slightly angularly excised. Ventrite 1 somewhat longer than hypopygidium and nearly equal in length to ventrites 2-4 combined, hypopygidium with a bisinuate apex. Epipleura a little wider than antennal club.Tibiae sube-

qual, much narrower than antennal club, fore one with a rounded outer subapical corner, but mid and hind ones with a subangular corner bearing a raised spine (but without any secondary sexual character). Femora rather narrow, fore and hind edges gently convex, fore and mid ones nearly twice as wide as corresponding tibiae, hind ones considerably wider and with a prominent tubercle along hind edge. Fore tarsi 3/4 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws long and narrow, not toothed. Aedeagus moderately sclerotized. Ventral plate and *spiculum gastrale* as in *E. (E.) pumila*.

V a r i a t i o n s: Length 2.5-2.8, breadth 1.2-1.3 mm. The second studied specimen from the same locality of the holotype is somewhat smaller, more dull and with more conspicuous pubescence, but the paratype from Assam is a little longer, more slender and lighter.

D i a g n o s i s: This new species has a rather characteristic scarcely excised labrum, almost unexcised hind edge of metasternum between coxae and subtruncate apex of prosternal process. Nevertheless, *E. (E.) contraria* new species seems to be related to some other himalayan species of the *pumila*-group, namely to *E. (E.) acea* new species, *E. (E.) acelsa* new species, *E. (E.) cameroni* new species, *E. (E.) cyclops*, *E. (E.) pumila*, *E. (E.) tenuis* [and, perhaps, to *E. (E.) funeraria* and *E. (E.) polina*]. Although this new species is a probable vicariant form to the palaearctic *E. (E.) funeraria* (easily distinuished from it according to characters in the above key), it is quite similar to *E. (E.) polina* - from which it is distinguished by smaller and more oval body with shorter elytra subtruncated at apices, shape of labrum, antennal grooves, expressed postocular fossae, sexual characters in structure of male mid tibia and shape of lateral lobes of tegmen. At the same time, besides different aedeagus and shape of labrum, comparatively more robust and rather dorsally convex body, this new species differs also from the species of the *pumila*-group:

- *E. (E.) acea* new species in smaller and much darker body with scarcely emarginate pronotal fore edge, more widely explanate pronotal and elytral sides, shorter elytra; longer and more conspicuous pubescence; peculiarities of ventral surface of epicranium; shape of apex of prosternal process; subcarinate mesosternum and undeveloped sexual dimorphism in mid tibiae;
- *E. (E.) acelsa* new species in smaller and somewhat darker body (brownish, but not reddish) with scarcely emarginate pronotal fore edge, more widely arched pronotal sides and rounded elytral apices; much longer and more conspicuous pubescence; more oval antennal club; peculiarities of ventral surface of epicranium; shape of apex of prosternal process; subcarinate mesosternum and wider tarsi;
- *E. (E.) cameroni* new species in character of coloration of body and appendages; less depressed dorsal surface of epicranium; shape of pronotum and undeveloped depressions on its disc; much shorter elytra; peculiarities of punctation and pubescence; peculiarities of ventral surface of epicranium; shape of apex of prosternal process; shallow angular excision of hind edge of metasternum between hind coxae; shorter legs and wider tarsi;
- *E. (E.) cyclops* in more oval body with different characters of coloration, developed postocular concavities and fossae and shape of hind femur;
- *E. (E.) pumila* in much more robust and darker body with scarcely emarginate fore edge and widely explanate pronotal sides, unprojecting elytral apices, much less distinct and sparser punctation; very conspicuous pubescence; much shorter elytra; well developed postocular fossae; shape of carinate apex of prosternal process; subcarinate mesosternum; shallow angular excision of hind edge of metasternum between hind coxae and wider tarsi;
- *E. (E.) tenuis* in somewhat more oval body with transversely truncate elytral apices, widely rounded pronotal sides, much more conspicuous pubescence; shape of labrum, antennal grooves and postocular concavities and fossae, hind femur; medial carina on mesosternum; distance between hind coxae much larger than that between mid ones; more or less distinct medial depression in distal half of male metasternum and undeveloped sexual characters in male mid tibia.

B i o n o m y: The imagines of this species have been recorded from rotten trunk in coniferous forest and caught in February and June over 2 500 m above sea level.

Distribution: This species is still known only from India, West Bengal (Darjeeling, Tiger-Hill: type locality) and Sikkim („Lanchung").

Etymology: The Latin name of this new species means „opposite, contrary, facing".

Epuraea (Epuraea) cribrata Grouvelle, 1903
Map 5, b

=*Epuraea (Epuraea) cribrata* Grouvelle, 1903a: 111 (India, Darjeeling); Grouvelle, 1908: 351; Grouvelle, 1913a: 111.

Specimens -
the type series should be deposited in BMNH, but the author could not find any specimen there; some specimens can be found in MNHN.

Diagnosis: *Epuraea (Epuraea) cribrata* is a member of the *indica*-group of species [see above - diagnosis to *E. (E.) compacta* new species]. This species is unknown to the author, but according to the key by Grouvelle (1908), can be diagnosed at least due to its obliquely truncate elytral apices in comparison with those of *E. (E.) indica* (transversely truncate). *E. (E.) cribrata* is, perhaps, also distinguishable from *E. (E.) compacta* new species and *E. (E.) indica* by its darker body coloration. Finally, as mentioned in the monograph by Grouvelle (1908), this species has elytra as long as combined width.

Distribution: This species is known only from its type locality (India, Darjeeling, without further information).

Epuraea (Epuraea) cyclops Jelínek, 1978, **new combination**
Figs. 137-138, 617-619; Map 5, c

=*Epuraea (Micruria) cyclops* Jelínek, 1978: 185 [Nepal - holotype (BMNH); Nepal and Bhutan - paratypes (BMNH, NMP, NMB)].

Material -
total 3 -
India: 2 (TMB, ZIN) - „W. Bengal, Darjeeling Distr., 3 km of Ghum, Gy. Topál", „N 341, beaten material, 19.IV.1967";
Myanmar (Burma): 1 (NRS) - „N.E. Burma, Kambaiti, 7000 ft, 23/5.1934, R. Malaise".

Diagnosis: This species is evidently a member of the *pumila*-group. Tarsal claw is scarcely toothed at base (but not more than that in other species of the group). This species differs from:

- *E. (E.) acea* new species and *E. (E.) acelsa* new species in shorter, more robust, more convex and darker body; peculiarities of punctation and pubescence; outline of labral lobes; shape of pronotum with slightly emarginate fore edge; shorter elytra with evenly rounded apices; shallower antennal grooves and undeveloped postocular fossae; subcarinate mesosternum and lack of secondary sexual dimorphism in mid tibiae;
- *E. (E.) cameroni* new species in more robust and more convex body with another type of pigmentation; peculiarities of punctation and pubescence; gently curved fore edge of labral lobes; untraced small round depressions on pronotal disc, somewhat shallower and differently outlined antennal grooves and postocular fossae; shorter and much wider prosternal process, considerably more separated coxae of each pair; much wider fore tarsi and lack of sexual dimorphism in mid tibiae;
- *E. (E.) contraria* new species in less oval body with different characters of coloration, undeveloped postocular concavities and fossae and shape of hind femur;
- *E. (E.) pumila* in more robust, more convex and much darker body; weakly emarginate fore edge of pronotum; not oblique elytral apices; less distinct punctation; shorter and less conspicuous pubescence; shallower antennal grooves; wider and subcarinate apex of prosternal process; subcarinate mesosternum and lack of sexual dimorphism in mid tibiae;
- *E. (E.) tenuis* in more robust and more convex body with defferent coloration, punctation and pubescence; shorter elytra with evenly

rounded apices; antennal grooves and lack of postocular fossae; subcarinate mesosternum; widely separated coxae in each pair and absence of sexual dimorphism in mid tibiae.

Notes: This species is without doubt erroneously treated as a member of the subgenus *E. (Micruria)* in the first publication (Jelínek, 1978), because it has the combination of characters sharing by species of the *pumila*-group of *E. (Epuraea)*, sensu stricto, having simple tarsal claws in contrast to the original description (see above).

Bionomy: The imagines of this species have been collected within April-June, probably in mountain forest at elevations over 2500 m above sea level.

Distribution: This species has been recorded from Nepal (Dudh Kosi Valley: type locality), Bhutan (Dorjula), India (West Bengal, Darjeeling District, 3 km of Ghum) and Myanmar (Burma) (Kachin State, Kambaiti). This species can be regarded as a representative of the Himalayan-Burmanian-Yunnanian faunistic block.

Epuraea (Epuraea) deterior Kirejtshuk, 1994

Figs. 139-141; Map 5, d

=*Epuraea (Epuraea) deterior* Kirejtshuk, 1994c: 101 (North Vietnam).

Material -
holotype (ZISP - Kirejtshuk, 1994c).

Diagnosis: This species is a member of *latissima*-group with simple tarsal claws and characterized by a rather wide and robust body with somewhat flattened pronotum, slightly exposed labral lobes, large antennal club [although somewhat smaller than in *E. (E.) latissima*] and broadly separated mid coxae [about as those in *E. (E.) birmanica*]. See also the above key.

Bionomy: According to information from the collector, this species has been caught in primary tropical rainforest on blossoming bushes in March.

Distribution: This species is known only from its type locality (North Vietnam, Thai Nguyên).

Epuraea (Epuraea) funeraria Reitter, 1884

Figs. 142-145; Map 5, e

=*Epuraea (Epuraea) funeraria* Reitter, 1884a: 260, 301 (Japan, Kiga, Miynoshita); Grouvelle, 1913a: 114; Sjöberg, 1939: 116 (East Siberia, Japan); Hayashi, 1978: 13, 33 (larva); Hisamatsu, 1985: 183; Kirejtshuk, 1992: 150 (Khabarovsky and Primorsky krays, Japan, Korea, East and South East China).

Material -
total more than 600, including lectotype, male (BMNH) and 2 paralectotypes (BMNH, TMB) -
China: 1 female (SNF) - „Kuatun, Fukien, 26.3.46 (Tschung Sen)";
Japan: **lectotype**, male (BMNH) here designed - „Kiga, Japan, G. Lewis"; 1 **paralectotype**, male (BMNH) - „1910-320";
and also more than 600 from Russian Far East and Japan, deposited in different collections.

Diagnosis: This species seems to be vicariant to *E. (E.) contraria* new species (easily distinguished from it according to characters in the above key), but viewed as more similar to *E. (E.) polina* well differing from the latter in nearly ellipse-shaped and unicoloured dark body, rather distinct and uniform dorsal punctation and smoothly microreticulated broader interspaces, less conspicuous pubescence, more elongate antennal club, less distinctly explanate pronotal and elytral sides, pronotum with archedly emarginate fore edge and more narrowed to slightly expressed top of hind corners, distinct postocular fossae behind lateral edge of eyes, unexpressed sexual dimorphism in femora and tibiae, blunt female pygidial apex and aedeagal characters.

Bionomy: This species lives under bark and in exducing tree sap, sometimes visits flowers of trees and bushes in the Russian Far East, its larval development is recorded on fermenting tree sap (Hayashi, 1978). The imagines and larvae are more usual in late spring (mostly in May).

Distribution: This species spreads in the East-chinese (Palaearchearctic) province: Russian Far East, Khabarovsky and Primorsky krays; Japan, including „Kiga" (type locality) and „Miynoshita"; Korea; Eastern and South Eastern China, including Fujian („Kuatun" = Aotou).

Epuraea (Epuraea) indica Grouvelle, 1894

Figs. 146-149; Map 6, a

=*Epuraea (Epuraea) indica* Grouvelle, 1894a: 459 (India, „Belgaum"); Grouvelle, 1908: 346, 351; Grouvelle, 1913a: 116.

Material -
India: ? **holotype**, female (BMNH) - „1500", „Belgaum, Bombay", „Andrewes Bequest, B.M. 1922-221".

Redescription of holotype (female): Length 3.4, breadth 1.9, height 1.4 mm. Strongly convex dorsally; reddish straw coloured, faintly shiny; dorsum with dense, subrecumbent, yellowish golden hairs, somewhat longer than distance between their insertions. Surface of head and pronotum with distinct punctures, a little larger than eye facets, interspaces between them narrower than a puncture diameter, with more or less raised cellular, dense microreticulation, although on pronotal disc punctures larger than eye facets and interspaces between them nearly or completely smooth. Elytral surface with more shallower, larger and sparser punctures and alutaceous interspaces between them. Head considerably flattened. Antennae a little longer than head width, club comprising about 2/7 total antennal length. Distance between mid coxae twice broader than between fore ones. Pygidium with a widely rounded apex. Epipleura considerably wider than antennal club. Tibiae narrower than antennal club, mid and hind with sharp subapical projection, but fore one with a raised tooth. Femora with normal outline. Tarsi rather narrow, fore one not wider than a third of fore tibia, but mid and hind ones much narrower; claws simple and short, with a visible bisetose empodium between them.

Diagnosis: This species is a member of the *indica*-group of species [see above - diagnosis to *E. (E.) compacta* new species]. *E. (E.) indica* is, perhaps, easily distinguishable from *E. (E.) cribrata* by paler coloration, elytra as long as combined width and with transversely truncate apices as mentioned in the Grouvelle nomograph on Indian Nitidulidae (1908).

Notes: The label of the holotype with indication of Belgaum and Bombay should be regarded as confused, because according to the references in the original description and Grouvelle's monograph of 1908, this species was originated from Belgaum.

Bionomy: Remains unknown.

Distribution: This species is known only from its type locality: India, Karnataka (Belgaum).

Epuraea (Epuraea) laeta new species

Figs. 150-156; Map 6, b

Material -
total 2, holotype (ZSM) and paratype (ZISP) -
India: **holotype**, male (ZSM) - „Darjeeling, W.B., Tiger-Hill, 2595 m, VI.1961, G. Scherer"; 1 **paratype**, female (ZISP) - „Darjeeling, W.B., 2180 m, VI.1961, G. Scherer".

Description of holotype (male): Length 3.4, breadth 1.7, height 0.8 mm. Moderately convex dorsally and ventrally; reddish with 2 indistinct stripes on pronotal disk, an indistinct patch on each elytron and antennal club darker (light brownish); dorsum and ventral surface rather shiny; dorsum with recumbent, long and thin, slightly conspicuous

yellowish golden hairs, about twice as long as distance between their insertions, underside with much shorter, thinner, somewhat sparser and less conspicuous hairs. Head surface with shallow but well outlined oval punctures, a little larger than eye facets, interspaces between them somewhat narrower than a puncture diameter, rather smooth or alutaceous. Pronotal surface nearly as on head, but punctures on disc larger and a little sparser, with entirely smooth intervals between them. Elytral surface nearly as punctured as head, but interspaces between punctures densely and finely microreticulated. Surface of pygidium and hypopygidium nearly as that on elytral apices, but with more distinct, smaller and denser punctures. Ventral surface with small, sparse, indistinct and shallow punctures (but pro- and mesosternum almost unpunctured), interspaces between punctures finely and densely microreticulated on pro- and mesosternum, and those on the middle of metasternum and ventrites more or less smooth. Head about as long as distance between eyes, weakly convex with a slight transverse depression behind antennal insertions; eyes composed of moderately small facets. Mandibles far exposed before labrum. Antennae about as long as head breadth, club nearly 1/3 total antennal length. Pronotum moderately convex with gently and slightly sloping sides, which are widely explanate at edges. Scutellum subtriangular, with narrowly rounded apex. Elytra scarcely longer than their combined width; sides gently sloping to narrowly explanate edges [twice wider than antennal stems (flagelli)] and transversely truncate at apices. Distal half of pygidium with slightly convex apex exposed from under elytra, under which widely rounded apex of anal sclerite is exposed. Antennal grooves moderately convergent behind mentum and well outlined, minimal distance between them nearly as large as mentum width; distinct oblong postocular fossa visible behind each temple. Prosternal process strongly curved along fore coxae before its roof-like apex and approaching the rather excavate surface of mesosternum [shaped nearly as in *E. (E.) compacta* new species]. Distance between fore coxae a little narrower and that between hind ones about twice broader than that between mid coxae. Mesosternum with a very short slight swollen medial carina in anterior third. Metasternum flattened in the middle and with a medial furrow in distal half, hind edge between hind coxae angularly excised. Ventrite 1 much longer than hypopygidium and somewhat longer than ventrites 2-4 combined, hypopygidium widely rounded at apex. Epipleura a little wider than antennal club. Tibiae subequal, much narrower than antennal club, with not prominent outer subapical corner (without any secondary sexual character). Femora rather narrow, fore and hind edges gently convex, fore and mid ones nearly twice as wide as corresponding tibiae, but hind ones a little wider. Fore tarsi 3/4 as wide as corresponding tibiae, mid and hind ones much narrower (hind ones scarcely lobed); claws long and narrow, not toothed and about 1/3 as long as tarsomere 5. Aedeagus moderately sclerotized. Ventral plate and *spiculum gastrale* as in *E. (E.) pumila*. Armature of inner sac of penis very large, but without any clearly outlined sclerite.

F e m a l e: Length 3.3, breadth 1.7 mm. Outwardly differs from the male in the short and widely rounded apices of pygidium and hypopygidium.

D i a g n o s i s: This new species is close to the *birmanica*-group and therefore is included in the table to the species of it [see diagnosis to *E. (E.) birmanica*], although this new species differs from all of them in its rather convex and nearly dull body (looking like forms from *consorbina*-group of subgenus *Micruria*) as well as in prosternal process distinctly carinate and strongly widened before apex. In addition, *E. (E.) laeta* new species has a partly intermediate appearance between *indica*- and *latissima*-groups differing from both in more slender body with shallowly emarginate fore edge of pronotum and distinct postocular fossae; and also from the first group in the narrowly explanate pronotal and elytral sides and hind coxae approaching each other; from the latter group - in the explanate pronotal and elytral sides and moderately convex (not flattened) body. Finally, this species can also be associated with the species similar to *E. (E.) longiungulata* new species, but has more and evenly convex body, pronotum widest at base and arcuately narrowed to apex, distinct postocular fossae, distinctly carinate prosternal process strongly widened before apex and simple legs in both sexes.

It should be noted that this new species is externally also very similar to the palaearctic *E. deleta* Sturm 1844, *E. (E.) silacea* (Herbst, 1784)

and *E. (E.) reichardti* Sjöberg, 1939, but besides the characteristic aedeagal structures, *E. (E) laeta* new species is quite well distinguished by the sparser and finer punctation, reduced reticulation, shape of antennal grooves and postocular fossae, simple male mid tibia and rounded pygidial apex of female.

B i o n o m y: The imagines of this species have been caught in June, probably in mountain forest at elevations over 2000 m above sea level.

D i s t r i b u t i o n: This species is known only from northern India: West Bengal, Darjeeling (Tiger-Hill: type locality).

E t y m o l o g y: The Latin name of this new species means „pleasant, agreeable".

Epuraea (Epuraea) latissima Reitter, 1880

Figs. 157-162; Map 2, c

=*Epuraea (Epuraea) latissima* Reitter, 1880d: 42 (Sumatra, Sidjoendjoeng); Ritsema, 1890: 31 („Midden Sumatra"); Grouvelle, 1900: 263; Grouvelle, 1908: 351 (Sri Lanka); Grouvelle, 1913a: 116 („Ostindien"); Kirejtshuk, 1994c: 104 (also North-Eastern India, Thailand).

M a t e r i a l -
total 15, holotype, female not found in RMNL -
India: 1 female (BMNH) - „Dehra Dun, H.G.C.", „H.G. Champion";
Laos: 1 (ZISP) - „Luang Prabang, Sala San Tiot, 10.III.1918, R.V. de Salvaza";
Thailand: 1 (SMNS) - „Changwat Chiang Mai, Chiang Mai, Dez 1988, 250 m, Trautner & Geigenmüller"; 1 (NMW) - „10.12.90, Ko Chang NP, Forster";
Sri Lanka: 1 (NMW) - „Ceylon, Paradeniya, 5.I.02, Dr. Uzel";
Malaysia: 1 (BMNH) - „West Coast, Langkawi Is., April 4 1928";
Indonesia: 1 (DEI) - „Sumatra, Tebing-tinggi, Dr Schultheiss" (det. A. Grouvelle); 1 (ZISP) - „Sumatra, O.K., Siak, 1913, 14.IV, O. John"; 1 (RMNL) - „Padang, Sidompor au, J.D. Pasteur, Sumatra occ."; 1

(RMNL) - „J.C. van Hasselt, Sekany, Samson, Sumatra"; 4 (RMNL, ZISP) - „Banjoewangi, Java, 1909, Mac Gillavry", „Coll. Veth" (det. E. Reitter); 1 (RMNL) - „A.L.v.H. Tapenoeli, coll. Veth"; 1 (RMNL) - „Dr. J. Bosscha, Borneo occ., Sambus".

D i a g n o s i s: This species is characterized by its very broad and subquadrate body, very wide and large antennal club, distinct fine and dense punctation, exceptionaly dense and short, rather conspicuous subrecumbent hairs on dorsum, a little longer than the distance between their insertions. *E. (E.) latissima* also more or less resembles other members of the *latissima*-group with rather broad body, covered with dense and distinct punctation on dorsal sclerites [*E. (E.) aduncta, E. (E.) basisinuata, E. (E.) deterior, E. (E.) pliginskyi, E. (E.) propingua*] ranging only in the Indo-Malayan region (mainly in Indochina: Kirejtshuk, 1994b).

N o t e s: This species can be easily recognized according to the characters in the original description, although the holotype was not found by Dr. J. Krikken in RMNL where it should be deposited (Reitter, 1880: 42).

B i o n o m y: According to the labels the imagines of this species are active at least in January, March, April, July and December; presumably this species lives in forest.

D i s t r i b u t i o n: This species widely spreads through the Indo-Malayan region: India, Uttar Pradesh (Dehra Dun); Laos, Luang Prabang (Sala San Tiot); Thailand, Changwat (Chiang Mai), island Ko Chang (Ko Chang National Park); Sri Lanka, „Paradeniya"; Malaysia, Langkawi Islands (along western coast of Malacca peninsula); Indonesia, Sumatra [including type locality: „Sidjoendjoeng", Tebing-tinggi, Siak, Padang („Sidompor au"), „Sekany, Samson"], Java („Banjoewangi"), Kalimantan (Sambus).

Epuraea (Epuraea) longiungulata new species

Figs. 163-169; Map 6, c

Material -
total holotype (TMB) and (NHNG) -
Vietnam: **holotype**, female (TMB) - „Lao cai, 26.XI.1971, N 128, leg. Gy. Topál";
Nepal: 1 **paratype**, female (MHNG) -"distr. Kathmandu: Phulckoki, 2400-2600 m, 28-30.IV.84, Löbl-Smetana".

Description of holotype (female): Length 3.2, breadth 1.6, height 0.8 mm. Moderately convex above and below; unicoloured straw reddish; dorsum and ventral surface with a fat sheen; dorsum with subrecumbent, not quite conspicuous, very fine yellowish hairs, about 1.5 times as long as distance between their insertions, underside with somewhat shorter and less conspicuous hairs. Head surface with quite distinct oval punctures as large as eye facets, interspaces between them nearly 1/5 puncture diameter or narrower, smoothly microreticulated or almost smooth. Pronotal surface subequal to that on head, but punctures somewhat larger and more sparse (interspaces between them 1/2-3/4 puncture diameter), microreticulation more distinct. Elytral surface with punctures markedly shallower, smaller and sparser than those on head and pronotum, but interspaces between them subequal to broader than one puncture diameter and finely alutaceous or smooth. Pygidium with punctures about as large as those on elytra, but much more dense and not quite distinct, separated by half a puncture diameter and space between them with dense and clear cellular microreticulation. Ventrites as punctured as elytral surface, but interspaces with more raised microreticulation. Punctures on middle of prosternum rather small and scarcely outlined, interspaces with dense cellular microreticulation. The punctures on the middle of metasternum small and as distinct as those on head, pronotum and elytra, but much sparser and space between them alutaceous. Head as long as distance between eyes, convex with a transverse depression between antennal insertions; eyes composed of moderately small facets. Antennae 1 1/7 times as long as head breadth, their club about 1/3 total antennal length. Pronotum weakly convex with gently and slightly sloping sides widely explanate at edges (as

widely explanate as length of antennal scape). Scutellum subtriangular with narrowly rounded apex. Elytra 1 1/5 times as long as combined width; sides steeply sloping and distinctly explanate at edges [as widely explanate as width of antennal stems (flagelli)], apices separately and rather widely rounded, forming an open sutural corner. Pygidium partly exposed from under elytra and with sharply acute apex. Antennal grooves steeply convergent behind mentum with only distinct inner edges which are 2/3 as proximally separated from each other as antennal club width; postocular fossae undeveloped. Mentum nearly 4 times as wide as long. Prosternal process strongly curved along fore coxae before its subcarinate apex, which approaches the rather excavate surface of mesosternum. Distance between fore coxae somewhat narrower and that between hind ones nearly twice more than distance between mid coxae. Metasternum slightly convex, with a medial suture in distal half before its hind edge, which is deeply angularly excised between hind coxae. Ventrite 1 considerably shorter than hypopygidium, latter with rather projecting and widely rounded apex. Epipleura much wider than antennal club. Tibiae 3/4 as narrow as antennal club, subtriangular and straight. Fore and mid femora with fore and hind edges gently convex, but hind femur with an angular projection in middle of hind edge, fore and mid ones nearly twice as wide as corresponding tibiae, but hind one more than 3 times as wide as hind tibia. Fore tarsi 1/2 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, tarsomere 5 much longer than 1-4 combined, claws narrow and very long. Ovipositor comparatively small and weakly sclerotized.

Variation: Length 3.7, breadth 1.7 mm. The second female (paratype) is a little darker, with pronotum somewhat larger in comparison with elytra in contrast to the holotype, and the dorsal surface is less shiny; hairs on dorsum about twice as long as the distance between their insertions.

Diagnosis: This new species is distinguishable from all congeners recorded from the territory under consideration by the exceptionally long tarsal claws which can be compared only with those in *E. (E.) propingua*, but clearly differs from the latter in body shape with not so

widely explanate pronotal and elytral sides, rather long elytra with separately rounded apices, characters of coloration, pubescence, punctation and sculpture. At the same time, this species more resembles *E. (E.) propria* new species, *E. (E.) simplissima* new species and, perhaps, *E. (E.) sinicola* Jelínek, 1980, but *E. (E.) longiungulata* new species is well distinguished from them according to the following table:

E. (E.) longiungulata new species:
1. dorsal surface shiny;
2. hairs on dorsum shorter and less conspicuous, about 1.5 times as long as the distance between their insertions;
3. head slightly shorter than distance between eyes;
4. pronotum slightly narrowed to base and with a shallow trapezium-like emargination of its fore edge;
5. elytra about 2.5 times as long as pronotum, with separately rounded apices;
6. prosternal process with widely rounded hind edge;
7. distance between hind coxae about twice as broad as between fore or mid ones;
8. tarsal claws nearly 1/2 as long as tarsomere 5;
9, 10, 11. unknown;
12. female hind femur with a prominence along hind edge at proximal half;

E. (E.) propria new species:
1. dorsal surface shiny;
2. hairs on dorsum nearly as those in *E. (E.) longiungulata* new species;
3. head 4/7 as long as distance between eyes;
4. pronotum as that in *E. (E.) longiungulata* new species;
5. elytra more than 2.5 times as long as pronotum, with subacute apices;
6. prosternal process with a transversely truncate hind edge;
7. distance between hind coxae a little broader than that between fore or mid ones;
8. tarsal claws about 1/3 as long as tarsomere 5;

9. male fore femur simple;
10. male hind femur narrower, with a small tubercle along hind edge in proximal half;
11. male hind tibia strongly dilated before apex of its inner edge;
12. unknown;

E. (E.) sinicola:
1. dorsal surface dull;
2, 3, 6, 7, 8, 12. not mentioned in the original description;
4. pronotum slightly narrowed to base and arcuately emarginate fore edge;
5. elytra less than 2.5 times as long as pronotum, with separately rounded apices;
9. male fore femur with a subbasal tooth at fore edge;
10. male hind femur simple;
11. male hind tibia as that in *E. (E.) propria* new species;

E. (E.) simplissima new species:
1. dorsal surface dull;
2. hairs on dorsum longer and more conspicuous, more than twice as long as distance between their insertions;
3. head a little shorter than distance between eyes;
4. pronotum distinctly narrowed to base and with deep trapezium-like emargination of its fore edge;
5. elytra less than 2.5 times as long as pronotum, with truncate apices;
6. prosternal process with a somewhat convex hind edge;
7. distance between hind coxae as that in *E. (E.) longiungulata* new species;
8. tarsal claws less than 1/3 as long as tarsomere 5;
9. male fore femur simple;
10. male hind femur wider, with a prominent tubercle on hind edge in proximal half;
11. male hind tibia slightly concave along its inner edge;
12. female hind femur simple.

B i o n o m y: The imagines of this species have been collected in mountains (at elevations over 2000 m above sea level) in April and

November. It is supposed that this species is associated with trees or/ and bushes affected by fungi.

Distribution: This species is known only from North Vietnam (Lao Cai: type locality) and Nepal (Kathmandu valley, Phulchoki).

Etymology: The Latin name of this new species is created from „longus" (long) and „ungulus" (claw).

Epuraea (Epuraea) nepalica new species

Figs. 170-179; Map 6, d

Material -

Nepal: **holotype**, male (MNG) - „distr. Kathmandu: Phulckoki, 2400-2600 m, 28-30.IV.84, Löbl-Smetana".

Description of holotype (male): Length 3.0, breadth 1.6, height 0.7 mm. Moderately convex dorsally and ventrally; chestnut dark brown with bright reddish fore part of head with appendages (except dark antennal club), pronotal sides and prescutellar part of elytral base, scutellum, elytral sides and subsutural parts, ventral side of epicranium, prosternum and legs; rather shiny; dorsum with subrecumbent, conspicuous, moderately fine yellowish hairs, a little longer than distance between their insertions, underside with more or less shorter and less conspicuous hairs. Head surface with distinct and deep oval punctures nearly twice as large as eye facets, interspaces between them less than 1/5 puncture diameter and smooth. Pronotal and elytral surface with punctures as large as those on head or somewhat larger, but not so deep (especially on pronotum) and sparser, interspaces between one puncture diameter or somewhat broader, very finely alutaceous or smooth. Pygidium as punctured as head, very narrow interspaces between punctures with dense and clear cellular microreticulation. Ventrites with comparatively small punctures, interspaces between them 1-2 puncture diameters, smooth, but interspaces on hypopygidium with more or less distinct microreticulation. Punctures on the middle of prosternum as

those on ventrites, but not so sparse, prosternal process unpunctured, interspaces between them with dense cellular microreticulation and undulate transrugosity. Punctures on metasternum about as large as those on pronotum and elytra, but somewhat denser and space between them alutaceous. Head 3/4 as long as distance between eyes, convex with a transverse depression between antennal insertions continuing along inner edge of each eye; eyes composed of moderately small facets. Antennae 1 1/5 times as long as head breadth, their club about 1/3 total antennal length. Pronotum rather convex with gently sloping sides which are widely explanate at edges (as widely explanate as antennal scape). Scutellum subtriangular with a narrowly rounded apex. Elytra about 1 1/7 times as long as combined width; sides steeply sloping and distinctly explanate at edges [a little more widely explanate than antennal stem (flagelli) wide]; narrowed before apices which are separately and rather widely rounded, forming a very blunt sutural corner. Pygidium partly exposed from under elytra and with widely rounded apex, from under which a widely rounded apex of anal sclerite is exposed. Antennal grooves steeply convergent behind mentum with distinct both inner and outer edges which are about as proximally separated from each other as antennal club width; postocular fossae undeveloped. Mentum nearly 4 times as wide as long. Prosternal process strongly curved before apex along fore coxae, its medially convex apex approaching the rather excavate surface of mesosternum. Distance between fore coxae almost twice narrower and that between hind ones nearly twice greater than distance between mid coxae. Metasternum slightly medially depressed and with a medial suture scarcely traced in distal half before its hind edge which is shallowly arcuately emarginate between hind coxae. Ventrite 1 scarcely longer than hypopygidium, latter with widely rounded apex. Epipleura much wider than antennal club. Legs moderately developed. Fore and hind tibiae 3/4 as narrow as antennal club, straight, but mid ones strongly curved and dilated before apex. All femora with fore and hind edges gently convex, nearly twice as wide as fore and hind tibiae. Fore tarsi 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, tarsomere 5 hardly longer than 1-4 combined, claws narrow and moderately short. Aedeagus moderately sclerotized.

D i a g n o s i s: This new species is rather unusual among the Indo-Malayan representatives of the subgenus due to its comparatively widely separated mid coxae [not so widely in comparison with *E. (E.) birmanica*, but wider than that in other members of the subgenus]. Some peculiarities of dorsal sclerites, character of dorsal surface, peculiar type of sexual dimorphism in shape of mid tibiae in the above mentioned species and also in *E. (E.) subnitida* new species suggest a close relationship between them, although *E. (E.) birmanica* is more outwardly similar to the species from the *latissima*-group, but *E. (E.) nepalica* new species and *E. (E.) subnitida* new species have most resemblance to *E. (E.) longiungulata* new species and *E. (E.) simplissima* new species. On the other hand, the new species under consideration has well characterized strongly raised punctation [as well as in species of the subgenus *E. (Epuraeanella)* - see below]. Moreover, peculiarities of dorsal sclerites of body and their outlines, coloration and sculpture are also reminiscent of those in the representatives of *E. (Epuraeanella)*. Nevertheless, *E. (E.) nepalica* new species in contrast to the *E. (Epuraeanella)* species has antennal grooves quite usual for the indo-malayan forms of the subgenus *E. (Epuraea)* sensu stricto and sexual dimorphism in mid tibiae rather peculiar to that in other species mentioned above. Therefore, it seems to be reasonable to admit a convergent development of similarity between the new species under consideration and *E. (Epuraeanella)* species. *E. (E.) nepalica* new species can be diagnosed according to the above key to species and the table of characters for 5 possible relatives [provisional *birmanica*-group: see notes to *E. (E.) birmanica*]. At the same time, *E. (E.) nepalica* new species differs also from:

- *E. (E.) longiungulata* new species in more robust and smaller body, peculiarities of coloration, punctation, sculpture and pubescence, depressed dorsal surface of head, longer antennal club, shorter elytra with very widely rounded apices, shape of last segment of labial palpi, prosternal process less strongly curved along fore coxae, more widely separated mid coxae, simple hind femur, shorter last tarsomere and claws;
- *E. (E.) simplissima* new species in more robust, less convex and smaller body, peculiarities of coloration, punctation, sculpture and pubescence, depressed dorsal surface of head, pronotum widest at basal third and widely explanate sides, shorter elytra with very widely rounded apices, shape of last segment of labial palpi, shallower antennal grooves, prosternal process less strongly curved along fore coxae and more widely separated mid coxae.

B i o n o m y: The holotype of this species has been collected at Mount Phulchoki (at elevations over 2000 m above sea level) in a mixed broadleaved forest in April.

D i s t r i b u t i o n: This species is known only from its type locality in Nepal (Kathmandu valley, Phulckoki).

E t y m o l o g y: The Latin name of this new species is created from „Nepal".

Epuraea (Epuraea) pallescens (Stephens, 1832)

Figs. 180-181; Map 6, e

=*Nitidula aestiva* Illiger, 1789: 385 (Europe), nec *Nitidula aestiva* Linnaeus, 1758: 574, nec *Nitidula aestiva* Fabricius, 1775: 77, nec *Nitidula aestiva* Herbst, 1784: 36, nec *Nitidula aestiva* Kugelann, 1792: 511; Grouvelle, 1913a: 114; *Nitidula pallescens* Stephens, 1832: 406 (Europe); *Nitidula astena* (err.): Castelneau, 1840: 11; *Epuraea aestiva*: Sturm, 1845: 155, non Erichson, 1845: 143; *Epuraea florea* Erichson, 1845: 155 (Europe); Marseul, 1885: 69; Ganglbauer, 1899: 482; Reitter, 1911: 32; Grouvelle, 1913a: 113; Reitter, 1919: 66; Sjöberg, 1939: 110; Hansen, 1950: 71; Spornraft, 1967: 59; Pototzkaya, 1978: 573 (larva); *Epuraea (Epuraea) abietina* J. Sahlberg, 1889: 108 (Europe); Ganglbauer, 1899: 482; Grouvelle, 1913a: 108; Reitter, 1919: 64; Hansen, 1950: 71; Spornraft, 1967: 59; *Epuraea (Epuraea) florea* var. *abietina*: Sjöberg, 1939: 110; *Epuraea (Epuraea) pallescens*: Audisio, 1980: 134; Kirejtshuk, 1992: 134 (widely distriduted in taiga and forested zones, including mountain regions of Mongolia, Kazakhstan, Japan and Korea); Audisio, 1993: 337 (also Northern Africa); *Epuraea (Epuraea) pallescens pallescens*: Kirejtshuk, Pakaluk, 1996: 146 (most of the Palearctic region, except the arid territories of Arabian peninsula, Middle

and Central Asia); *E. (E.) pallescens labilis* [Erichson, 1843: 272 (USA)]: Kirejtshuk, Pakaluk, 1996: 146 (Canada, Alaska, to California, Texas, Louisiana, Florida and Mexico).

Material -
Vietnam: 1 male (NMW) - „Hanoi, 9.VI.1990, leg. Strand";
and some thousands from many parts of the Holartic regions deposited in different collections.

Diagnosis: This species is well characterized by subtruncate fore and hind edges of pronotum, transversely truncate elytral apices, narrow antennal groves and narrow postocular fossae, distinctly punctured dorsum and very peculiar aedeagus. Due to these features, *E. (E.) pallescens* is easily diagnozed among other indo-malayan members of the subgenus *E. (Epuraea)* sensu stricto. Only the nearctic *E. (E.) cetera* Kirejtshuk et Pakaluk, 1996 is more or less similar to the species under consideration.

Notes: The synonymy of this species is taken from Grouvelle (1913a), Audisio (1993) and Kirejtshuk and Pakaluk (1996). The bibliography of this common palaearctic species is so immense, that it seems reasonable to restrict the references only to urgent ones. It needs a lot of space to compile a more or less complete list of references for this species, but it is possible to get a general information on it in the Junk's cataloque (Grouvelle, 1913a) monographs and reviews by Parsons (1943), Spornraft (1967), Kirejtshuk (1992) and Audisio (1993) as well as in the mentioned paper by Kirejtshuk and Pakaluk.

Bionomy: This quite common and rather variable holarctic species (Kirejtshuk, Pakaluk, 1996) inhabiting rather diverse ecological conditions could occasionally be introduced from northern countries [perhaps, like another holarctic species *E. (E.) aestiva* - see above], unless this record is the result of a mistake in labelling.

This species is one of the commonest species of the genus in deciduous temperate forest and occur beneath bark and at fermening tree sap in early spring and on different flowers later. The larvae of it usually

breed in tree sap of *Betula* species and *Tilia* species in late spring and early summer, although recorded also from many other trees of different genera.

Distribution: The geographic range of this species covers almost all over the Holarctic regions, nearly reaching the tundra zone in the north and extending to the south, except the arid territories of the Nearctic region, Arabian peninsula, Middle and Central Asia, but it is usual in the taiga and forested zones, including mountain regions of Kazakhstan, Mongolia, Russian Far East, Japan and Korea. The only specimen recorded from the territory under consideration originated from Hanoi (North Vietnam).

Epuraea (Epuraea) pliginskyi Kirejtshuk, 1994

Figs. 182-184; Map 7, a

=*Epuraea (Epuraea) pliginskyi* Kirejtshuk, 1994c: 101 (Vietnam, Thailand).

Material -
total 7, including holotype (ZISP - Kirejtshuk, 1994c) and 6 paratypes (SMNS, ZINSP - Kirejtshuk, 1994c).

Diagnosis: This species together with with *E. (E.) aduncta* (see above) differs from all indo-malayan species of subgenus *E. (Epuraea)* sensu stricto in its strongly toothed tarsal claws. It is well diagnosed according to the above key to species and notes to *E. (E.) aduncta*, differing from the latter in paler body, arcuate pronotal sides, more contrasting dorsal microsculpture between punctures, arcuately emarginate hind edge between hind coxae, narrower fore tarsi of males, shape of mid and hind tibiae of males, narrowly rounded apex of female pygidium and aedeagal structure.

Bionomy: The imagines of this species have been collected in January and August, probably in mountain forest.

Distribution: This species is known only from the type localities in the central part of Vietnam(„Song Dingh, Annam": type locality) and Thailand (Amphoe Ching Dao, Doi Ching Dao).

Epuraea (Epuraea) polina Kirejtshuk, 1987a
Figs. 185-188; Map 7, b

=*Epuraea (Epuraea) polina* Kirejtshuk, 1987a: 66 (China, Fujian; India, West Bengal).

Material -
total 10, including holotype (SMF - Kirejtshuk, 1987a) and 7 paratypes (SMF, TMB, ZISP - Kirejtshuk, 1987a) -
? **Thailand**: 1 female (ZMUC) - „Prae Siam, 1929-33, Paul Fogh", „Coll. Rosenberg".

Diagnosis: This species is well distinguishable from all indomalayan members of the subgenus due to its combination of characteristic features in size and coloration of body, peculiarities of punctation, sculpture, sexual dimorphism in legs, acute female pygidial apex, especially characteristic aedeagus and so on. It has some resemblance to *E. (E.) funeraria* distributed mainly in the Palaearctic part of East Asia, although differing from it according to the characters listed in the notes to the last species.

Notes: The specimens from Darjeeling included in the type series have some differences in coloration and shape of penis, which allow an assumption about subspecific and specific differences. Particularly in contrast to specimens from China (from there the holotype originated) the himalayan form is much lighter and with its short penis narrowed only just at the abrupt apex. The specimen from Thailand has condition like that of *E. (E.) aestiva* and, perhaps, has the same doubtful origin, and as the female of this species has not so many reliable features, identification of it remains problematic.

Bionomy: The imagines of this species have been collected in May and October, probably in mountain forest.

Distribution: This species can be considered as a probable representative of the Himalayan-Burmanian-Yunnanian faunistic block after record from India (West Bengal, Darjeeling, Lopchu), ? Thailand and China [Fujian, „Kuatun" = Aotou (type locality)].

Epuraea (Epuraea) propingua Grouvelle, 1906
Figs. 189-194; Map 7, c

=*Epuraea (Epuraea) propingua* Grouvelle, 1906a: 365 [Myanmar (Burma)]; Grouvelle, 1913a: 121.

Material -
Myanmar (Burma): **holotype**, male (MSNG) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88", „*Epuraea propingua* Grouv." (written by A. Grouvelle).

Redescription of holotype (male): Length 3.7, breadth 2.0, height 0.8 mm. Slightly convex dorsally and ventrally; pronotal disc, elytra except base and explanate sides, and abdomen chocolate-brown gradually darkening posteriorly; head dark brown; remainder of body and appendages, including explanate sides of pronotum and elytra reddish; dorsum with subrecumbent, short, moderately conspicuous, golden hairs, a little longer than the distance between their insertions. Head surface with shallow, but quite distinct punctures, as large as eye facets, interspaces between them somewhat less than a puncture diameter, densely and coarsely alutaceous. Pronotal surface with more distinct and deeper punctures, somewhat larger than eye facets, interspaces between them about a puncture diameter, smoothly microreticulated. Elytral surface nearly as that on pronotum, but punctures less distinct and interspaces with more or less conspicuous, dense and cellular microreticulation (almost alutaceous). Surface of tergites uncovered by elytra and ventral surface nearly microgranulate, on ventral side a little smooth, and on prosternum with dense cellular microreticulation. Head

a little shorter than distance between eyes, flattened and with a weak depression between antennal insertions. Eyes composed of moderately small facets. Mandibles scarcely exposed from under frons and labrum. Antennal scape 1.5 times as long as broad, comparatively small - 2.5-3.0 times larger than last segment of maxillary palpi. Antennal grooves deepened but scarcely outlined. Pronotum with gently sloping, widely subexplanate sides and distincly concave hind edge. Scutellum subtriangular. Elytra with widely explanate sides (as widely explanate as width of antennal scape), truncate apices leaving uncovered the pygidium and most of preceding tergite. Pygidium flattened with a transverse apex, from under which a narrowly rounded (almost acute) apex of anal sclerite is exposed. Distance between mid coxae 1.5 times, that between hind ones more than 3 times, as that between fore coxae. Prosternal process rather slightly curved along coxae, roof-like before strongly widened apex having a truncate hind edge. Mesosternum deeply excavate and with a medial carina. Metasternum flat, with a medial suture traced in the distal 2/3 and shallowly emarginate hind edge between coxae. Hypopygidium a little shorter than ventrite 1, with widely rounded or subtruncate apex. Elytral epipleura comparatively wide, about twice as wide as length of antennal scape or as wide as apex of prosternal process. Tibiae subtriangular, fore and mid ones 3/5, hind ones 1/2 as wide as epipleura. Femora narrow and with gentle outline, fore and mid ones twice, but hind ones 2.5 times as wide as corresponding tibiae. Fore tarsi twice narrower than corresponding tibiae, but mid and hind tarsi much narrower, claws very long and subrectilinear, about 2/5 as long as tarsomere 5. Aedeagus well sclerotized.

D i a g n o s i s: Prosternal process and the distances between coxae of this species are as those in the species of *E. (Epuraeanella)*, although it has completely different appearance with short elytra, widely explanate pronotal and elytral sides, slightly outlined antennal grooves and suberect tarsal claws. Tarsal claws are somewhat similar to those in *E. (Epuraea) longiungulata* new species, but many other diagnostic characters are completely different [see above key to the species and notes on *E. (E.) longiungulata* new species]. *E. (E.) propingua* bears some resemblance to members of the *consobrina*-group of subgenus *E. (Micruria)* [see below - notes to *E. (M.) consobrina*] differing from

representatives of this group considered below in the comparatively shiny dorsum of more robust and rather dark body, comparatively short male elytra, deepened antennal grooves, suberect tarsal claws, simple male femora and tibiae and well sclerotized peculiar aedeagus.

B i o n o m y: No bionomical data are known about this species, although it is supposed that it lives in mountain forest over 1000 m above sea level within May-December.

D i s t r i b u t i o n: This species is known only from its type locality in Myanmar (Burma): Karen State („CarinChebá").

Epuraea (Epuraea) propria new species

Figs. 195-204; Map 7, d

M a t e r i a l -

India: **holotype**, male (BMNH) - „Sikkim, Lachen, 10000 ft, 1.III.1952", „T. Cley", „From moss, leaf mould, earth, pine wood".

D e s c r i p t i o n of holotype (male): Length 3.6, breadth 1.6, height 0.8 mm. Moderately convex dorsally and ventrally; bright reddish with lighter hypomera, epipleura and legs, but antennal club strongly darkened; rather shiny, in particular from below; covered with rather fine, moderately dense, subrecumbent golden hairs, about 1.5 times as long as the distance between their insertions. Head and pronotal surface with shallow and indistinct punctures, much larger than eye facets and with interspaces between finely and smoothly microreticulated. Elytral surface about as on head and pronotum, but punctures a little shallower and microreticulation more developed. Pygidial surface nearly as that on head and pronotum, but with more distinct punctation. Ventral surface punctured as pygidium, interspaces distinctly less than a puncture diameter and with rather smooth microreticulation, although punctures on prosternum extremely shallow and microreticulation between them well developed, fine and very dense. Head 4/7 as long as distance between eyes with a weak concavity between antennal insertions and along inner edge of eyes. Anal sclerite widely and gently rounded at apex. Mid and

hind femora nearly twice as wide as antennal club with a small tubercle in proximal half of their hind edge. Mid and hind tibiae somewhat dilated along their inner edge before apex. Aedeagus well sclerotized. Ventral plate as that in *E. (E.) waterhousei*.

Diagnosis: This new species is very similar to *E. (E.) longiungulata* new species, *E. (E.) simplissima* new species and, perhaps, to *E. (E.) sinicola* Jelinek, 1980 from China [see notes to *E. (E.) longiungulata* new species].

Bionomy: The imagine of this species has been recorded from coniferous subalpine forest and have been caught in March over 3000 m above sea level.

Distribution: This species is still known only from its type locality: India, Sikkim (Lachen).

Etymology: The Latin name of this new species means „proper, particular, individual, special, peculiar, reliable".

Epuraea (Epuraea) pumila Grouvelle, 1897

Figs. 205-220; Map 7, e

=*Epuraea (Epuraea) pumila* Grouvelle, 1897: 359 (India without futher geographic information); Grouvelle, 1903a: 109 (India, Darjeeling); Grouvelle, 1908: 351; Grouvelle, 1913a: 121; *Epuraea (Epuraea) apicalis* Grouvelle, 1903a: 110 (India, Sikkim), new synonym; Grouvelle, 1908: 352; Grouvelle, 1913a: 109; Jelínek, 1978: 173 (Bhutan).

Material -
total 107, including holotype of *E. (E.) pumila* (MNHN), and lectotype of *E. (E) apicalis* (MNHN) -
Pakistan: 1 (BMNH) - „Punjab, Murree Hills, Camp Thobba", „H. Roberts, B.M. 1926-395";
India: holotype *E. (E.) pumila*, male (MNHN) - „India", „ex Mus. Murray", „*Epuraea pumila* ty. Grouv." (written by A. Grouvelle); **lec-**

totype *E. (E.) apicalis*, male (MNHN), here designated - „Museum Paris, Sikkim, Harmand, 1890"; 6 (SMNS, ZISP) - „Himachal Pradesh, Simla, Kufri, 16.4.1989, A. Riedel"; 1 (BMNH) - „Dhelu, Mandi, Punjab, 4500 ft, H.G.C.", „H.G. Champion"; 1 (SMNS) - „Uttar Pradesh, Mussoorie, Dhanalt, 1.7.1989, 2250 m, A. Riedel"; 1 (SMNS) - „Uttar Pradesh, Mussoorie, Kampy-Falls, 8.7.1989, 1500 m, A. Riedel"; 1 (BMNH) - „R., Serda Gorge, Kumaon, U.P., Dec.1918, H.G.C.", „2647"; 41 (BMNH, SMNS, ZISP) - „W. Almora, Kumaon, U.P., H.G.C.", „H.G. Champion"; 2 (BMNH) - „W. Almora Divn, Kumaon, U.P., Mar'1918, H.G.C.", „H.G. Champion"; 5 (BMNH, ZISP) - „Haldwani Dist., Kumaon, H.G.C.", „H.G. Champion"; 1 (BMNH) - „Ranikhet, Kumaon, H.G.C.", „H.G. Champion"; 4 (BMNH, ZISP) - „in spathes *Arisaema tortuosum*", „Nainital, U.P., 7-8600 ft, June 1923, H.G.C.", „H.G. Champion"; 7 (BMNH, ZISP) - „In pear blossom", „U.P., Dehra Dun, 20.III.1928, H.G. Champion"; 1 (BMNH): ibid. „6.III.1932, H.G. Champion"; 1 (BMNH) - „Darjeeling, Ghoon" „Ghum district, v-vi-31, Dr. Cameron"; 1 (BMNH) - „Dehra Dun, H.G.C.", „H.G. Champion";
Nepal: 1 (MHNG) - „(Prov. Bagmati) Porhare, N E Barahbise, 2 800 m, 2.V.81, Löbl & Smetana"; 1 (MHNG) - ibid... „Phulchauki, nr. Kathmandu, 1700 m, 10.V.81, I. Löbl"; 6 (MHNG, ZISP) - „distr. Kathmandu, Phulchoki, 2 500 m, 28-29.IV.84, Löbl-Smetana"; 1 (ZISP) - „Lalitpur Distr., Phulcoki, N slope, 2600 m, 16.X.1983, Smetana & Löbl"; 1 (ZISP) - „356 Taplejung Distr., Omje Kharka, NW Yamputhin, mature mixed forest, 2300-2500 m, 1-6 May 1988, Martens & Schawaller"; 1 (BMNH) - „British Nepal Expedition 1952, T.D. Bourdillon"; 1 (BMNH) - „5600', Kathmandu Distr., Godawari, 24.V-6.VI.1983", „at light", „M.J.D. Brendell"; 3 (MHNG, ZISP) - „distr. Kathmandu: Phulchoki, 2500 m, 28-29.IV.84, Löbl-Smetana"; 1 (SMNS) - „140 Manang Distr., Marayandi, 2500 m, Thimang/Bagarchap, Tsuga-Acer-Rododen., Martens & Ausobaky, 14/17 Apr. 80"; 7 (SMNS, ZISP) - "435 Mustang Distr., right banks of Lethe Khola near Lethe, 2400 m, 5-7. V. 1995, Martens & Schawaller".

Addition to description (Grouvelle, 1897; 1903): Length 2.4-3.4, breadth 1.2-1.6 mm. Many specimens almost unicolored straw reddish or with darkened lateral and apical parts of elytra (some specimens

with darkened metasternum and medial parts of pro- and mesosternum, but lateral part of their elytra light); dorsum with moderately conspicuous subrecumbent yellowish golden hairs somewhat longer than distance between their insertions. Not infrequently antennal club more or less darkened. Sculpture and punctation variable, some specimens are rather shiny with especially contrasting pubescence. Finally, specimens from the Punjab (BMNH) are rather dark and almost dull, very densely punctured on dorsum, with pronotal punctures larger than those in studied specimens from Simla Kufri and contiguous, but intervals between shallow and indistinct, rather large punctures much less than a puncture diameter. Tegmen moderately and penis trunk weakly sclerotized.

The Nepalese specimens of this species from Kathmandu (MHNG) are characterized by darker and smaller body which look almost like that of the holarctic *E. (E.) pallescens*. One male of these specimens has labral lobes gently curved with a narrow excision between them, simple mid tibiae, and not so acute apex of penis trunk.

Diagnosis: This species differs from other members of the *pumila*-group as follows:

- *E. (E.) acea* new species in shorter and more slender body, frequently darkened antennal club, nearly truncate fore and hind edges of pronotum, somewhat oblique elytral apices, more conspicuous pubescence, undeveloped postocular fossae, rather narrower prosternal process with an abrupt and flattened apex, a deeper (nearly angular) excision of hind edge of metasternum between coxae and not so strongly raised subapical dilatation on inner edge of male mid tibiae;
- *E. (E.) acelsa* new species in more slender body, different coloration, slightly oblique elytral apices, rather conspicuous pubescence, particularly much shallower antennal grooves and undeveloped postocular fossae, narrower prosternal process with an abrupt and flattened apex, closer coxae of mid and hind pairs, hind edge of metasternum with a deeper excision between coxae and developed sexual dimorphism in structure of mid tibiae;
- *E. (E.) cameroni* new species in light coloration, shorter pubescence, gently curved (not subacute) fore edge of labral lobes, a little larger

pronotum without a trace of small oval depressions on its disc, much shallower and differently outlined antennal grooves and lack of postocular fossae, prosternal process with a subtruncate and flattened apex and much wider fore tarsi;

- *E. (E.) contraria* new species in more slender body, mostly light coloration, a clear excision between labral lobes, distinctly explanate pronotal and elytral sides, much less dense, much shorter and less conspicuous pubescence, lack of postocular fossae, somewhat narrower prosternal process with flattened apex, mesosternum without a trace of medial carina, comparatively deeply and arcuately emarginate hind edge of metasternum between coxae and slightly raised secondary sexual dimorphism in mid tibiae;
- *E. (E.) cyclops* in more slender body, different coloration, more distinct punctation and less conspicuous sculpture on dorsum, shorter and much less conspicuous pubescence, deeper excision between labral lobes, much longer elytra with suboblique apices, wider and flattened prosternal process, incarinate mesosternum and scarcely dilated inner edge of male mid tibiae;
- *E. (E.) tenuis* in very different coloration and pubescence, more clearly oblique elytral apices, shape of less projecting labral lobes with gently curved fore edge, scarcely concave surface of epicranium behind antennal insertions, undeveloped postocullar fossae, wider and flattened prosternal process and emarginate (not quite angular) hind edge of metasternum between coxae.

Notes: The studied specimens, including the types of *E. (E.) pumila* and *E. (E.) apicalis* gave ground to regard both names as evident synonyms for this rather variable species.

Bionomy: This species is one of the commonest himalayan representatives of the Epuraeinae and lives in mountain forests at different elevations (more frequently at 2000 m above sea and over). It was collected within March-June and in December on different substrates from trees and bushes, including their flowers.

Distribution: This species can be considered as a typical representative of the Himalayan-Burmanian-Yunnanian faunistic block

after record from Pakistan, Punjab [Murree Hills (Camp Thobba)]; India [type locality of *E. (E.) pumila*, without detailed information], Himachal Pradesh [Simla Kufri, Dhelu (Mandi)], Uttar Pradesh [Mussoorie (Kampy-Falls), Serda Gorge, Kumaon (Ranikhet, West Almora Division and Haldwani District), Naini Tal, Dehra Dun]; West Bengal [Darjeeling, „Ghoon" (Ghum district)]; Sikkim [type locality of *E. (E.) apicalis*]; Nepal, Porhare (Province Bagmati, north eastern of Barahbise), Manang District, Mustang District, Phulckoki (near Kathmandu), Godawari (Kathmandu valley), Omje Kharka (Taplejung District); Bhutan, Gogona.

Epuraea (Epuraea) riedeli new species

Figs. 221-229; Map 8, a

Material -
total 100, including holotype (SMNS) and 99 paratypes (BMNH, MHNG, SMNS, ZISP) -
India: **holotype**, male (SMNS) and 27 **paratypes** (SMNS, ZISP, ZMB) - „Himachal Pradesh, Simla, Kufri, 16.7.1989, A. Riedel"; other **paratypes**: 43 (BMNH, ZISP) - „Dubhatoli, 8-10000 ft, Kumaon, H.G.C.", „H.G. Champion"; 2 (BMNH) - „Naintal Div., Kumaon, U.P., H.G.C.", „H.G. Champion"; 9 (BMNH) - „Tanakpur, Kumaon, U.P., H.G.C.", „H.G. Champion"; 1 (BMNH) - „R.Sarda Gorge, Kumaon, U.P., Dec. 1918, H.G.C.", „H.G. Champion"; 4 (BMNH) - „W.Almora, Kumaon, U.P., H.G.C.", „H.G. Champion"; 2 (BMNH) - „U.P., Dehra Dun", „6.III.1932, H.G. Champion";
Nepal: 1 (BMNH) - „8000', Kathmandu Distr., Phulkoki, 27-31.V.1983", „M.J.D. Brendell", „fogging Jak tree"; 9 (MHNG, ZISP) - ibid. „Phulcoki, 2500 m, 28-29.IV.84, Löbl-Smetana"(„2400-2600 m, 28-30.IV.84"); 12 (SMNS, ZISP) - "421, Dolakha Distr., SW Kalinchok MTs., 3100 m, 19-23. IV. 1995, Martens & Schawaller"; 1 (MHNG) - „E.NEPAL: KOSI, Crete S Mangsingma, 2800 m, 8.IV.84, Löbl-Smetana".

Description of holotype (male): Length 3.0, breadth 1.2, height 0.7 mm. Body moderately convex dorsally and ventrally; reddish (nearly straw coloured), but dorsal side of epicranium (except for anterior part of frons), 2 elongate spots on pronotal disc, small humeral and large subapical spots on each elytron, metasternum and abdomen beginning from ventrite 2 blackish; dorsum moderately shiny and ventral surface with a fat sheen; dorsum with rather thin, recumbent, well conspicuous golden hairs, almost 3 times longer than distance between their insertions (but hairs on dark areas dark and scarcely conspicuous); hairs on ventral surface somewhat shorter and sparser. Head surface nearly microgranulate and dull. Pronotal and elytral surface with shallow and indistinct punctures, somewhat larger than eye facets, interspaces between them narrower than a puncture diameter, smooth on pronotum, but finely microreticulated and somewhat smooth on elytra. Pygidial and ventral surfaces with punctures as large as those on pronotum and elytra, but interspaces between them rather narrow and almost microreticulated, only in middle of metasternum punctation sparser and more distinct, but microreticulation somewhat smooth. Head almost twice shorter than distance between eyes, slightly concave behind antennal insertions and at eyes, hardly convex at base. Eyes composed of moderately large facets. Mandibles a little exposed from under labral lobes. Antennae somewhat longer than head width; club nearly a third of total length. Pronotum evenly convex, with gently sloping sides (subexplanate at edges). Scutellum subtriangular. Elytra moderately steeply sloping at sides and narrowly explanate at lateral edges. Pygidium with abrupt apex, from under which a widely rounded apex of anal sclerite projects posteriorly. Mentum nearly quadrangular, somewhat narrower anteriorly. Antennal furrows not outlined and scarcely deepened. Distance between mid coxae a little broader and distance between hind ones more than 2.5 times broader than that between fore ones. Prosternal process strongly curved and approaching mesosternal surface, its apex strongly widened before widely rounded hind margin and about 3 times as wide as distance between fore coxae. Metasternum flattened with an expressed medial line, its hind edge between coxae distinctly angular. Ventrite 1 as long as hypopygidium or ventrites 2-4 combined. Hypopygidium with almost straight hind edge. Epipleura much narrower and somewhat wider than fore tibia. All tibiae narrow, slightly wider than scape, mid one a little dilated before apex. Femora 2.0-2.5 times wider than tibiae, with rather gentle fore and hind

edges. Fore tarsi 2/3 as wide as fore tibiae, mid and hind ones much narrower, tarsal claws simple and narrow. Aedeagus moderately sclerotized.

Female: Differs from male only by simple mid tibia, narrower pygidial apex with an abrupt hind edge and hypopygidium widely rounded at apex. Ovipositor weakly sclerotized.

Variations: Length 2.4-3.2, breadth 1.2-1.4 mm. All paratypes are rather similar to the holotype, although some of them have somewhat reduced pigmentation on elytra (upto lack of blackish humeral spot), other paratypes with smooth integument and their head with more conspicuous punctures and shiny, somewhat reticulated interspaces between them.

Diagnosis: *Epuraea (Epuraea) riedeli* new species is very distinctive due to a combination of characters of both the subgenus *E. (Haptoncurina)* (shape and proportions of head, pronotum and elytra) and some groups of the subgenus *E. (Epuraea)* sensu stricto (small eye facets, dilated male mid tibia, characteristic aedeagal structures). This species can be easily recognized also by coloration, microgranulated head surface and abrupt pygidial apex.

Bionomy: This species has been collected in mountain forest at elevations over 2000 m above sea level within April-July and in December. Its appearance allows us to suppose an anthophilous mode of life for this species, especially taking into consideration its shape and proportions of head, pronotum and elytra (see above diagnosis).

Distribution: This species is as yet known only from India, Himachal Pradesh (Simla, Kufri: type locality), Uttar Pradesh [Kumaon (Dehra Dun, Dubhatoli, Sarda Gorge, Naini Tal Division, Tanakpur, western of Almora)] and Nepal, Phulkoki (Kathmandu District), Kalinchok Montains (Dolakha District), Kosi (Crete, southern of Mangsingma).

Etymology: The species is named in honour of A. Riedel collected many rare and interesting specimens for this work.

Epuraea (Epuraea) simplissima new species

Figs. 230-239; Map 8, b

Material -
total 3, including holotype (SMNS) and 2 paratypes (BMNH, ZISP) - Nepal: **holotype**, male (SMNS) and 1 **paratype** (ZISP) - „140, Manang Distr., Marsyandi, 2550 m, Thimang/Bagarchap, *Tsuga-Acer-Rhododendron*, Martens & Ausobsky, 14/17 Apr.80"; 1 **paratype** (BMNH) - „8800', Kathmandu Distr., Phulkoki, 27-31.V.1983", „M.J.D. Brendell", „At MV light".

Description of holotype (male): Length 3.7, breadth 1.7, height 0.8 mm. Moderately convex dorsally and ventrally; reddish with somewhat lighter elytra and pygidium (almost yellowish); dorsum faintly shiny, ventral surface nearly dull; dorsum with subrecumbent, well conspicuous and bright yellowish hairs, more than twice longer than distance between their insertions, underside with shorter and less conspicuous hairs, approximately as long as distance between their insertions. Head and pronotal surface with relatively shallow and not quite distinct oval punctures much larger than eye facets, interspaces between them nearly 1/4-1/3 puncture diameter and with smooth microreticulation, disc of pronotum with punctures somewhat larger and more distinct. Elytral surface with punctures markedly smaller and sparser than those on head and pronotum, but interspaces between them nearly one puncture diameter and finely alutaceous. Pygidium with punctures a little larger than eye facets, separated by half a puncture diameter and space between them with dense and clear cellular microreticulation. Ventral surface similar to that on pygidium, but punctures on middle of prosternum very large, shallow and scarcely outlined, those on middle of metasternum as large and distinct as those on pronotal disc, but a little sparser and spaces between them with a trace of microreticulation or alutaceous microsculpture. Head a little shorter than distance between eyes, convex with a pair small depressions between antennal insertions; eyes composed of moderately small facets. Antennae 1 1/5 times as long as head breadth, their club nearly 2/7 total antennal length. Pronotum weakly convex with gently and slightly sloping sides, widely explanate at edges (as widely explanate as width of antennal scape). Scutellum

subtriangular, with narrowly rounded apex. Elytra 1 1/5 times as long as wide combined; sides steeply sloping and distinctly explanate at edges (with narrower explanations than width of antennal scape), apices separately and rather widely rounded, and subtruncate. Pygidium entirely exposed from under elytra and with a widely rounded apex, under which an evenly curved apex of anal sclerite is exposed. Antennal grooves steeply convergent behind mentum with distinct inner edges only, which are 2/3 as proximally separated from each other as width of antennal club; postocular fossae undeveloped. Mentum nearly 4 times as wide as long. Prosternal process strongly curved before apex along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly twice more than that between mid coxae. Metasternum with shallow and wide medial depression and a raised medial suture in distal half before its hind edge which is deeply emarginate between hind coxae (more or less angularly). Ventrite 1 about as long as hypopygidium, the latter with a bisinuate apex. Epipleura much wider than antennal club. Legs moderately developed. Tibiae considerably narrower than antennal club (especially hind ones), fore tibiae subtriangular with a distinct outer subapical corner (looking like a small tooth), but without any prominent subapical process; mid tibiae gently curved and widened at apical inner corner, hind ones straight and very narrow. Fore and mid femora with fore and hind edges gently convex, hind femur with a small projection at hind edge, fore and mid ones nearly 1 1/2 times as wide as corresponding tibiae, hind femur about twice wider than hind tibia. Fore tarsi 3/5 as wide as corresponding tibiae, mid and hind ones much narrower; tarsomere 4 with a small brush of hairs from below, claws scarcely toothed at base. Aedeagus well sclerotized.

F e m a l e: Differs from the male by the pygidium slightly projecting and semicircular at apex, hypopygidium widely rounded at apex, simple mid tibia and hind femur with a gently curved hind edge as well as a little narrower fore tarsi. Ovipositor moderately sclerotized.

V a r i a t i o n s: Length 3.2-3.7, breadth 1.5-1.7 mm. Coloration varies to unicoloured reddish straw, there are small variations in punctation and pubescence. One paratype (female from Marsyandi) has pronotal

sides less rounded than those in the holotype (drawn on fig. 230), its antennal grooves are more developed and almost unified, although the inner distal parts are not quite distinct.

D i a g n o s i s: *Epuraea (Epuraea) simplissima* new species can be distinguished according to the above key and table in the notes on *E. (E.) longiungulata* new species. The habitus of this species resembles the palaearctic species of the subgenus *E.* (*Epuraea*) sensu stricto and some representatives of the *E.* (*Micruria*) from the palaearctic Far East, the Himalayas and Indochina (having quite contrasting golden pubescence). This new species has aedeagal structures, antennal grooves and other features making a consideration of it among the species of *E.* (*Epuraea*) sensu stricto quite reasonable. However, *E.(E.) simplissima* new species also has some resemblance to members of *consobrina*-group treated by Jelínek (1978) in *E.* (*Epuraea*) sensu stricto (especially by the slightly angulate hind edge of male hind femur), but in contrast to the latter, this new species is characterized by secondary sexual dimorphism in mid tibiae as well as different male genitalia. On the other hand, this new species has some resemblance to species of the *pumila*-group and to *E. (E.) polina*, but differs from them in larger body, conspicuous golden pubescence, slightly toothed tarsal claws, lighter and unicoloured reddish body, characters of sexual dimorphism and aedeagal structures, tegmen and penis trunk of this new species look somewhat like those of the last mentioned species. The present new species differs from many species of *E. (Micruria)* in the deeply emarginate fore edge of prothorax, explanate sides of pronotum and elytra, slightly toothed base of tarsal claws, shape of male hind femur and so on.

B i o n o m y: This species occurs in mountain forest at elevations over 2500 m above sea level. The imagines have been collected in late spring (April-May).

D i s t r i b u t i o n: This species is recorded only from Nepal, Marsyandi (Thimang/Bagarchap, Manang District: type locality) and Phulckoki (Kathmandu valley).

E t y m o l g y: The Latin name of this new species means „simplest".

Epuraea (Epuraea) subnitida new species

Figs. 240-250; Map 8, c

Material-

Nepal: holotype, male (SMNS) - „365 Taplejung Distr., Yamputhin ascent to pass Deorali, 2100-2600 m, cultural land, bushes, 16 May 88, Martens & Schawaller".

Description of holotype (male): Length 3.2, breadth 1.4, height 0.7 mm. Weakly convex dorsally and ventrally; reddish; dorsum moderately shiny and ventral surface with a fat sheen; dorsum with recumbent, fine and slightly conspicuous yellowish hairs, about twice longer than distance between their insertions, underside with somewhat sparser and less conspicuous hairs. Head surface with distinct oval punctures, a little larger than eye facets, interspaces between them nearly 1/4-1/3 puncture diameter and with smooth microreticulation. Pronotal surface nearly as that on head but punctures much larger than eye facets, interspaces on disc up to half a puncture diameter or a little broader and smooth. Elytral surface with punctures as large as those on head, but interspaces between them almost one puncture diameter and rather smooth. Pygidium with a little smaller and denser punctures than on head, but space between them with clearly cellular microreticulation. Ventral surface similar to that on pygidium, but punctures on middle of prosternum coarser and microreticulation smooth, those on middle of metasternum sparser and space between them nearly smooth. Head about 3/4 as long as distance between eyes, convex with a pair of small depressions between antennal insertions; eyes composed of moderately small facets. Antennae considerably longer than head breadth, their club nearly 1/3 total antennal length. Pronotum moderately convex with gently and slightly sloping sides subexplanate at edges. Scutellum subtriangular, with narrowly rounded apex. Elytra 1 1/5 times as long as combined width; sides steeply sloping and distinctly explanate at edges, with apices separately rounded. Pygidium entirely exposed from under elytra and with a widely rounded apex, under which a slightly angular apex of anal sclerite is exposed. Antennal grooves steeply convergent and united behind mentum with distinct inner edges; a clear oval postocular fossa visible behind each temple (but not on ventral surface of

epicranium). Mentum nearly 4 times as wide as long. Prosternal process strongly curved before apex along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae a little narrower and that between hind ones nearly 1.5 times broader than that between mid ones. Metasternum with shallow and wide medial depression in distal half before its deeply emarginate hind edge between hind coxae. 1st ventrite about as long as hypopygidium, the latter with a biemarginate apex. Epipleura a little wider than antennal club. Legs moderately raised. Tibiae narrower than antennal club, fore one weakly arcuate, mid one angularly curved and hind one stright and very narrow. Femora with fore and hind edges gently convex, fore and mid ones nearly twice as wide as corresponding tibiae, but hind ones considerably wider. Fore tarsi 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; 4th tarsomere with a small brush of hairs from below, claws long and narrow, not toothed. Aedeagus moderately sclerotized.

Diagnosis: This species seems to belong to the provisional *birmanica*-group, although with more slender and rather shiny body, shallowly emarginate fore edge of pronotum, longer elytra with arched sides before apices and different shape of male mid tibiae [see diagnosis to *E. (E.) birmanica*].

Bionomy: This species originated from cultivated plantation of bushes at elevations over 2000 m above sea level and collected in late spring (May).

Distribution: This species is known only from its type locality: Yamputhin ascent to pass Deorali (Taplejung District).

Etymology: The Latin name of this new species means „almost shiny".

Epuraea (Epuraea) tenuis Jelínek, 1978

Figs. 251-256; Map 8, e

=*Epuraea (Epuraea) tenuis* Jelínek, 1978: 179 (Nepal; holotype - NMW).

Material -
total 35 (BMNH, MHNG, SMNS, ZISP) -
Pakistan: 1 male (BMNH) - „Kadrala, Bashahr, Punjab, 9000 ft, H.G.C.", „H.G. Champion";
Nepal: 9 (MHNG, ZISP) - „(Prov. Bagmati) below Thare Pati, 3300 m, 10.IV.81, Löbl & Smetana"; 3 (MHNG) - ibid. „3300 m, 11.IV.81, Löbl & Smetana"; 5 (MHNG, ZISP) - ibid. „3500m, 12.IV.81, Löbl & Smetana"; 2 (MHNG) - ibid. „3400 m, 13.IV.81, Löbl & Smetana"; 3 (MHNG) - ibid. „Yardang Ridge, NE Barahbise, 3250 m, 5.V.81, Löbl & Smetana"; 1 (SMNS) - ", 439 Mustang distr., Purana Marpha, 3200 m, 9-11. V. 1995, Martens & Schawaller"; 1 (MHNG) - „Mustang Distr., 2 km N Kalopani, 2550 m, 1.X.83, Smetana & Löbl"; 2 (MHNG) - „Parbat Distr., Punhill at Ghoropani Pass, 3050-3100 m, 8.X.83, Smetana & Löbl"; 2 (SMNS, ZISP) - „361, Taplejung Distr., upper Simbua Khola Valley near Tseram, 3250-3350 m, mature *Abies-Rhododendron* forest, 10-15 May 88, J. Martens & W. Schawaller"; 6 (SMNS, ZISP) - „359 Tablejung Distr., pasture Lassetham NW Yamputhin, 3300-3500 m, mature *Abies-Rhododendron* forest, 6-9 May 1988, J. Martens & W. Schawaller".

Variations: This species is quite variable including sexual dimorphism in shape of mid tibia of male: many males from Nepal have, in contrast to original description, mid tibiae with a strong curve at apex. The single specimen from India has a rather lighter coloration (light brownish) and less conspicuous pubescence in contrast to those from Nepal. Moreover, the pronotal disc in some specimens has one prescutellar or 4 small depressions like those in *E. (E.) cameroni* new species.

Diagnosis: This species is more or less similar to other species of the *pumila*-group [see above: notes to *E. (E.) acea* new species, *E. (E.) acelsa* new species, *E. (E.) pumila*] being characterized by rather uni-

coloured dark and comparatively shiny body, very conspicuous pubescence and rather large postocular fossae. Meanwhile, *E. (E.) tenuis* differs from:

- *E. (E.) acea* new species in more convex and dark body, less distinct and coarser punctation, more conspicuous pubescence, subacute labral lobes, more depressed dorsal surface of head, angularly curved pronotal sides, characters of antennal grooves and postocular fossae, subcarinate apex of prosternal process with rounded hind edge, mid coxae more widely separated from each other and not so dilated male mid tibiae;
- *E. (E.) acelsa* new species in somewhat more slender body, characters of coloration, subacute labral lobes, more depressed dorsal surface of head, not so gradually rounded and less widely explanate pronotal sides, more narrowed elytral apices with more arched hind edges, less distinct and coarser punctation, much longer and more conspicuous pubescence, character of antennal grooves and postocular fossae and narrower fore tarsi;
- *E. (E.) cameroni* new species in unicoloured dark body, much coarser punctation of dorsum, much longer and more conspicuous pubescence, more elongate antennal club, outline of shallower antennal grooves and postocular fossae and shorter prosternal procees with rounded hind edge;
- *E. (E.) contraria* new species in more slender and less convex body, much coarser punctation, shorter and less conspicuous pubescence, shape of labral lobes, more depressed dorsal surface of head, shape of pronotum with distinctly emarginate fore edge and clearly explanate sides, much shorter elytra, more elongate antennal club, distinct outline of outer edge of antennal grooves and postocular fossae located on ventral surface, rounded hind edge of prosternal process, incarinate mesosternum and a more or less expressed sexual dimorphism in shape of mid tibiae;
- *E. (E.) cyclops* in somewhat more slender and less convex unicolored dark body, much coarser punctation, shorter and less conspicuous pubescence, shape of labral lobes, more depressed dorsal surface of head, shape of pronotum with angularly curved sides, somewhat shorter elytra, distinct outline of outer edge of antennal grooves and developed postocular fossae located on ventral surface, rounded hind

edge of prosternal process, incarinate mesosternum, greater distance between hind coxae and a more or less developed sexual dimorphism in shape of mid tibiae;

- *E. (E.) pumila* in unicoloured dark body, less distinct and coarser punctation on dorsum, significantly more conspicuous pubescence, shape of labral lobes, shape of pronotum with excised fore edge and angularly curved sides, not oblique elytral apices, distinct outline of outer edge of antennal grooves, developed postocular fossae located on ventral surface and somewhat subcarinate apex of prosternal process.

Bionomy: This species lives in mountain forest (including *Abies-Rhododendron* forest) at elevations mostly over 2500 m and up to 3500 m above sea level, and its imagines have been collected in late spring (April-May) and in October.

Distribution: This species is recorded from Pakistan, Punjab („Kadrala, Bashahr") and Nepal, Taksang („Takola": type locality), below Thare Pati (Bagmati Province), Yardang Ridge (north eastern of Barahbise), 2 km northern of Kalopani (Mustang District), Punhill at Ghoropani Pass (Parbat District), upper Simbua Khola Valley near Tseram and pasture Lassetham northwestern of Yamputhin (Taplejung District).

Epuraea (Epuraea) titana new species

Figs. 257-264

Material -
total 2, including holotype (BMNH) and 1 paratype (ZISP) -
China: **holotype**, female (BMNH) and 1 **paratype**, female (ZISP) - „Szechuan, Hsui Mo ko, 4000 ft, 16.IV.1941", „Pres. by Mrs. Richardson".

Description holotype (female): Length 3.8, breadth 2.2, height 1.1 mm. Comparatively strongly convex dorsally and moderately ventrally; straw reddish; dorsum with a faint fat sheen, underside moderately shiny; dorsum with moderately dense, subrecumbent, rather conspicuous, moderately fine yellowish hairs, a little longer than distance between their insertions; underside with much finer, shorter and much less conspicuous hairs. Head and pygidial surface with quite distinct punctures not larger than eye facets, interspaces between narrower than one puncture diameter, densely and finely cellularly microreticulated. Pronotal and elytral surface with somewhat sparser, shallower and smaller punctures, but interspaces between them significantly broader than one puncture diameter and with a more distinct microreticulation. Punctures on metasternum and ventrites considerably smaller than those on dorsal surface, interspaces between them 2-3 puncture diameters, somewhat smoothly microreticulated. The punctures on the middle of prosternum obsolete and interspaces smoothly and somewhat undulately microreticulated. Head 2/3 as long as distance between eyes, convex with a transverse depression between antennal insertions; eyes composed of moderately small facets. Antennae a little shorter than head breadth, club about 1/3 total antennal length. Pronotum rather convex and subtrapezoidal and moderately subexplanate sides (as widely subexplanate as antennal scape width). Scutellum subtriangular. Elytra scarcely longer than their combined width; sides steeply sloping and distinctly explanate at edges [a little more widely explanate than width of antennal stems (flagelli)]; apices separately very widely rounded, almost transversely truncate. Pygidium almost completely covered by elytra and only its very widely rounded, almost truncate apex exposed. Antennal grooves traceable only on either side from mentum and a little behind it; postocular fossae undeveloped. Mentum of usual configuration and nearly 4 times as wide as long. Prosternal process strongly curved along fore coxae and with an explanate apex widely rounded at hind edge. Mesosternum gently convex medially. Distance between fore coxae a little narrower and that between hind ones about twice as broad as distance between mid coxae. Metasternum flattened and with a medial suture scarcely traceable in distal 2/3 before its hind edge, which is angularly excised between hind coxae. 1st ventrite a little longer than hypopygidium, latter with a narrowly rounded apex. Epipleura a little wider than antennal club and elevated laterally. Legs moderately developed. Tibiae somewhat narrower than antennal club, subtriangular, but mid and hind ones somewhat dilated along their in-

ner edge before apex. All femora with fore and hind edges gently convex, fore and mid ones 1.5 times, but hind ones a little more than twice as wide as corresponding tibiae. Fore tarsi nearly as wide as corresponding tibiae, mid and hind ones somewhat narrower; tarsomere 5 hardly longer than 1-4 ones combined, claws narrow and moderately short. Ovipositor moderately sclerotized.

Variation: The second female (paratype) is somewhat larger (length 4.1, breadth 2.2 mm) and looks somewhat deformed due to its pronotum having a slight medial depression before scutellum.

Diagnosis: This new species can be easily diagnosed among other indo-malayan forms of the subgenus *E.* (*Epuraea*) due to its rather convex and robust body, which resembles some *E.* (*Micruria*) species, comparatively short antennae with a rather large last segment, subtruncate elytral and pygidial apices, maxillary palpi narrowed to apex and dilated apices of mid and hind tibiae of female. Appearance and enlargened last antennal segment of this new species is partly similar to the holarctic *E. (E.) aestiva*, but the new species is distinguished in size and configuration of body, shallowly and arcuately emarginate fore edge and widely subexplanate sides of pronotum, shape of elytral and pygidial apices, much sparser punctation, regular cellular microreticulation and angular excision of hind edge of metasternum between hind coxae.

Bionomy: The imagines of this species have been collected in April at elevations over 1000 m above sea level.

Distribution: This species is known only from its type locality: China, Sichuan („Hsui Mo ko").

Etymology: The Latin name of this new species is formed from mythical Titana (daughter of Uranos and Gaia).

Epuraea (Epuraea) waterhousei Grouvelle, 1908
Figs. 265-272

=*Epuraea (Epuraea) Waterhousei* Grouvelle, 1908: 348, 352 (Himalayas, „nord-ouest"); Grouvelle, 1913a: 128.

Material -
? **India**: 1 ? **syntype**, male (BMNH) - „N.W. Himalayas, E.P. Stebbing, 1901-184, ex *Pinus excellens*", „ *Epuraea* sp.nr." (written by A. Grouvelle).

Redescription of male (syntype): Length 3.4, breadth 1.6, height 0.7 mm. Moderately flattened dorsally and rather convex ventrally; straw reddish with somewhat darker elytra and metasternum; body with faint fat sheen, metasternum and proximal ventrites rather shiny; dorsum with rather dense, very short subrecumbent, conspicuous, moderately fine yellowish hairs, a little longer than distance between their insertions; underside with much finer, longer, sparser and much less conspicuous hairs. Head surface with quite distinct and deep punctures not larger than eye facets, interspaces between them 1/3-2/3 puncture diameter, densely and finely cellularly microreticulated. Pronotal surface with somewhat denser punctures, but with more distinct microreticulation on interspaces between them. Elytral surface with clearly larger punctures than those on head, but not so deep and sparser, interspaces between about one puncture diameter, as microreticulated as those on pronotum. Pygidium with very shallow and indistinct punctures nearly as large as those on other sclerites of dorsum; interspaces between punctures less than one puncture diameter, as cellularly microreticulated as those on head. Punctures on metasternum and proximal ventrites somewhat larger than those on dorsal surface, interspaces between them significantly broader than one puncture diameter (on ventrites up to 2-3 puncture diameters), smoothly alutaceous; distal ventrites with somewhat denser punctures and interspaces between microreticulated. Punctures on middle of prosternum as large and sparse as those on metasternum and proximal ventrites, but shallower and indistinct, interspaces smoothly microreticulated; prosternal process with obsolete punctation and almost smooth.Head 3/4 as long as distance between

eyes, convex with a transverse depression between antennal insertions; eyes composed of moderately small facets. Antennae a little longer than head breadth, their club about 1/3 total antennal length; their scapus and 2-3 segments as in *E. (E.) championi* new species. Pronotum flattened with a pair of slight paramedial prominences along lateral edges and narrowly explanate sides [as widely explanate as width of antennal stems (flagelli)]. Scutellum subsemicircular. Elytra about 1 1/7 times as long as combined width; sides steeply sloping and distinctly explanate at edges [a little more widely explanate than width of antennal stems (flagelli)]; narrowed before apices which are separately rounded and somewhat projecting at suture. Pygidium almost entirely exposed from under elytra, with a projecting truncate apex, under which a widely rounded and almost transverse apex of anal sclerite is exposed. Antennal grooves only traceable on either side from mentum; postocular fossae undeveloped. Mentum nearly 4 times as wide as long. Prosternal process comparatively short, gently curved along fore coxae and with unexplanate apex having an abrupt hind edge. Mesosternum gently convex medially. Distance between fore coxae a little narrower and that between hind ones nearly subequal to distance between mid coxae. Metasternum slightly medially convex and with a medial suture scarcely distinct in distal 3/4 before hind edge which is arcuately emarginate between hind coxae. 1st ventrite much longer than hypopygidium, latter with a widely rounded apex. Epipleura a little wider than antennal club. Legs moderately developed. Tibiae 4/5 as wide as antennal club, nearly straight, but mid and hind ones somewhat narrower along their inner edges before apex. All femora with fore and hind edges gently convex, fore and mid ones less than twice, but hind ones somewhat more than twice as wide as corresponding tibiae. Fore tarsi 1/3 as wide as corresponding tibiae, mid and hind ones much narrower, with scarcely lobed tarsomeres 1-3; tarsomere 5 almost longer than 1-4 ones combined, claws narrow and moderately short. Aedeagus moderately sclerotized and slightly curved.

D i a g n o s i s: This species has some affinity to *E. (E.) championi* new species and also to the palaearctic species of the *laeviuscula*-group and nearctic *E. (E.) linearis* Mäklin, 1853, due to the elongate body with characteristic shape of pronotum and elytra, as well as peculiarities of

punctation and sculpture. *E. (E.) waterhousei* is well characterized by elongate body with a flattened dorsum, shallow excision between labral lobes, comparatively large antennomere 9, almost undeveloped antennal grooves, peculiar prosternal process, coxae of all pairs rather close to each other and narrow tarsi. The flattened dorsum of this species resembles the nearctic *E. (Horniraea) scaphoides* Horn, 1879, although these species are very different in many features and can not be regarded as relatives.

N o t e s: The studied specimen is alone in the collection of the London Museum (BMNH) from where was loaned the type series. If the specimen with a reliable Grouvelle's label is absent in the Paris Museum (MNHN) this specimen could be designated as lectotype or neotype.

B i o n o m y: This species probably lives in coniferous mountain forest and its connection with the Scolytid holes can presumably be supposed.

D i s t r i b u t i o n: The type locality of this species remains unknown, because only a general indication on northwestern part of the Himalayas is given on the label and in the original description.

IV. Subgenus *Epuraea (Ommoraea)* new subgenus

Type-species: *Epuraea (Ommoraea) acutocaudalis* new subgenus and species.

D i a g n o s i s: This subgenus can be easily diagnosed by the following characters:

- large eyes composed of comparatively large facets [somewhat like those in species of *E. (Haptoncurina)* and *E. (Platychorina)* Grouvelle, 1905];
- neck parallelsided and approaching level of eyes [unusual character for the subfamily, although it occurs in species of *E. (Platychorina)*

and a somewhat intermediate state can be seen in *Tritesus transversicollis* Heller, 1916];
- gently arched pronotal sides, somewhat projecting and acute both fore and hind corners;
- scutellum narrowed at base (unusual feature not only in representatives of the subfamily Epuraeinae, but also for the family as a whole);
- sharply acute elytral apices;
- mentum rather narrowed as anteriorly as posteriorly;
- last segment of labial palpi with rectilinearly divergent sides (unusual character for the subfamily);
- prosternal process slightly curved along fore coxae and slightly approaching the not strongly excavate mesosternum (this feature is more similar to that in groups from the *Soronia*-complex of genera within the subfam. Nitidulinae than to those in other representatives of Epuraeinae);
- distinct and coarse punctation on dorsum [a little similar to that in *E. (Epuraeanella)* species and *E. (Epuraea) nepalica* new species];
- tarsal claws a little toothed at base [as in many *E. (Micruria)* members and also in species of *Platychorina* Grouvelle, 1905; *Parepuraea* Jelínek, 1977 and *Marinexa* Kirejtshuk, 1989b among the subfamily).

Bionomy: No bionomic data are known on the type species of this new subgenus.

Composition and distribution: This subgenus is represented only by a single species recorded from Thailand.

Etymology: The Latin name of this new subgenus is formed from the first half of „ommatidium" and the second half of generic name „*Epuraea*".

Epuraea (Ommoraea) acutocaudalis new subgenus and species

Figs. 273-279; Map 8, d

Material -
Thailand: **holotype**, female (SMS) - „10-13.5.1993, 19.27N 98.20E, Soppong, 1550 m, L. Bocák".

Description of holotype (female).: Length 3.5, breadth 1.5, height 0.8 mm. Moderately convex dorsally and ventrally; dark chestnut brown with blackish basal part of dorsal surface of head, pronotal and elytral discs; slightly shiny; dorsum with subrecumbent (or almost suberect), moderately thick and rather conspicuous yellowish golden hairs, a little longer than distance between their insertions, underside with somewhat sparser, fine, moderately conspicuous and more recumbent hairs. Head surface with rather distinct, oval and rather deep punctures nearly subequal or a little larger than eye facets, interspaces between them half a puncture diameter, almost smooth. Pronotal and elytral surface nearly as that on head, but punctures somewhat denser, interspaces between them much narrower than half a puncture diameter, smooth on pronotum and irregularly striate between punctures on elytra. Pygidial surface microgranulate, with dense and fine contrasting cellular microreticulation between tubercles. Ventrites and prosternum with slightly visible obsolete punctures, interspaces between them as microreticulated as pygidium, although in places rather smoothed. Metasternal surface similar to that on ventrites and prosternum, but with more visible shallow punctures, spaces between them with rather distinct, dense, partly smoothed, cellular microreticulation. Head about 3/4 as long as distance between eyes, convex with an arcuate depression behind antennal insertions and depressed narrow stripes along eyes; eyes composed of rather large facets. Antennae about 7/8 as long as head breadth, their club about 1/3 total antennal length. Pronotum slightly and evenly convex and with widely explanate sides (nearly as widely explanate as antennal scape) and with a pair of shallow oval depressions at scutellum. Scutellum subsemicircular and with sides somewhat narrowed at base. Elytra 1 1/4 times as long as combined width; sides gently sloping and distinctly explanate at edges [nearly as widely ex-

planate as antennal stem (flagellum)], apices strongly projecting and sharply acute. Pygidium almost completely covered by elytra and only its very widely rounded apex exposed. Antennal grooves very shallow and steeply convergent behind mentum; without developed postocular fossa. Mentum transversely oblong. Prosternal process slightly curved along fore coxae before strongly widened apex which has a widely rounded hind edge and approaches the shallowly excavate surface of mesosternum. Distance between fore coxae about twice narrower, that between hind ones 1.5 times broader than that between mid ones. Metasternum shallowly depressed along medial suture present on its entire length, hind edge with deep angular excision between coxae. Ventrite 1 about twice longer than hypopygidium, latter subtriangular and with a rounded apex. Epipleura 1.5 times as wide as antennal club. Legs moderately developed. Tibiae 3/5 as wide as antennal club, rather straight, fore ones with a weak subapical tooth. Fore femora with fore edge comparatively strongly curved and hind edge gently convex, mid ones with a more gentle outline and hind ones almost of usual configuration; fore femora about 3.0 times, mid ones less than 2.5 times, and hind ones more than 2.5 times as wide as corresponding tibiae. Fore tarsi 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; claws moderately long and slightly toothed at base.

The holotype remains undissected although well developed styli of usual shape from its ovipositor are somewhat exposed behind apices of pygidium and hypopygidium.

B i o n o m y: This species probably lives in mountain forest in May at elevations over 1000 m above sea level. Taking into consideration its appearance, including large eyes with large facets, an open mode of life is supposed for its imagines (very probably anthophilous and connected with trees and bushes).

D i s t r i b u t i o n: This species is known only from its type locality: Thailand, Soppong.

E t y m o l o g y: The Latin name of this new species is composed from „acutus" (sharp, poignant) and „caudalis" (tail, caudal).

V. Subgenus *Epuraea (Micruria)* Reitter, 1875

=*Epuraea (Micruria)* Reitter, 1875a: 58, 64; Reitter, 1919: 73; Sporn-raft, 1967: 57; Hisamatsu, 1985: 181; Jelinek, 1993: 95. Type-species: *Epuraea mandibularis* Reitter, 1873, here designated. [Hayashi, 1978: 12, 14, 33 (larvae)]
=*Epuraea (Micrurula)* Reitter, 1884b: 209; Marseul, 1885: 71; Seidlitz, 1888a: 210; Seidlitz, 1888b: 225; Ganglbauer, 1899: 492; Grouvelle, 1913a: 108; Jelínek, 1978: 184-199; Kirejtshuk, 1992: 123.

D i a g n o s i s: The subgeneric taxon *E. (Micruria)* has a not quite definite hiatus. The main differences between *E. (Micruria)* and both *E. (Epuraea)* sensu stricto and *E. (Epuraeanella)* are listed in the above key. The most noticeable diagnostic character of *E. (Micruria)* usually is a raised tooth of tarsal claws (except for species of the *consobrina*-group with comparatively weak tooth, but with their body especially dull and evenly convex with a specific type of secondary sexual dimorphism in structure of legs). The species of this group have a comparatively convex (vaulted at sides) body with usually very indistinct punctation and conspicuous microreticulation on dorsum, unexplanate or very narrowly explanate pronotal and elytral sides, truncate elytral apices (except for the species of the *consobrina*-group, both or one of sexes of which are with subacute elytral apices). Besides, these species have weakly raised or undeveloped antennal grooves, usually narrow prosternal intercoxal process, moderately separated hind coxae and most often with shallowly emarginate hind edge of metasternum between them, characteristic types of secondary sexual dimorphism and frequently more or less characteristic aedeagal structure. At the same time, some african and madagascarean groups of the genus *Epuraea* sensu lato are characterized by strongly toothed tarsal claws. Even among the indomalayan representatives of this genus, *E. (Epuraea) aduncta* and *E. (E.) pliginskyi* are with a well raised tooth at tarsal base, but in contrast to members of *E. (Micruria)* these species have comparatively wide and flattened body, much more separated hind coxae.

N o t e s: The taxon *Micruria* was proposed by Reitter (1875a) for japanese species with toothed tarsal claws. Later he decided to propose

for it another name (*Micrurula* Reitter, 1884b) believing the first was preoccupied before his publication (Reitter, 1874a), although the name *Micruria* was really used by other authors for some not nitidulid animals only after the Reitter's proposal. Besides, the submediterranean *Epuraea melanocephala* (Marsham, 1802) also was included to this group (Reitter, 1875). Some authors recognized this taxon with a subgeneric status (f.i. Reitter, 1884a, 1884b; Grouvelle, 1908; Spornraft, 1967; Jelinek, 1978; Hisamatsu, 1985; Kirejtshuk, 1992), but others ignored it (f.i. Sjöberg, 1939; Audisio, 1993). However it is quite clear that the mentioned european *E. melanocephala* has a more close relation to the congeners from the East Chinese province and Indo-Malayan region than to any western palaearctic and nearctic groups of this genus.

In this work the subgeneric taxon *E. (Micruria)* is accepted in a more or less traditional sense as a group which unites the forms from the Palaearctic and Indo-Malayan regions with toothed tarsal claws, although Jelinek (1978) is quite right to regard it as a rather heterogenous one and, therefore, it should be divided into some monophyletic groups. Nevertheless, *E. (M.) reticulata* and other members of the *consobrina*-group are regarded here in the taxonomical combination proposed by A. Grouvelle. In his second description of the mentioned species as *E. (Micrurula) braeti*, he included other species with toothed tarsal claws, but having also some other common features: in body shape, characters of punctation and sculpture of surface, undeveloped antennal grooves and postocular fossae, frequently emarginate hind edge of metasternum between coxae, peculiarities of sexual dimorphism and aedeagal structure. Therefore, the author maintains a preliminary segregation of this group into a taxon with subgeneric rank. At the same time two species obviously unrelated to the group considered above, but also with strongly toothed claws [*E. (E.) aduncta* and *E. (E.) pliginskyi*] are regarded as aberrant forms of the *latissima*-group because of significant similarities of both to other representatives of this group (Kirejtshuk, 1994c).

B i o n o m y: This subgenus, as *E. (Epuraea)* sensu stricto, seems to consist of species with extremely diverse bionomy, however members of it are mostly adhered to mountain forest. Some species have been

found at sap and under bark with fermenting sap or oozed cambial tissue, decomposing grass or leaves and similar substrates of plant origin. However, many representatives show a more or less association with flowers of tree and bushes (it is very probable that all species of the *consorbina*- and *grouvellei*-group are anthophagous). Imaginal activity and larval development of many species of the subgenus fall on late spring and early summer, although some species are collected round the year.

C o m p o s i t i o n and d i s t r i b u t i o n: The members of this subgenus is restricted in distribution mainly by the East-Chinese (Palaearchiarctic) province and Indo-Malayan region, with most diversity in the territory under consideration, and only *E. (M.) melanocephala* occurs in the western part of the Palaearctic region. This group in general can be considered as a typical component of the Himalayan-Burmanian-Yunnanian faunistic block.

Epuraea (Micruria) alutidorsum new species and *E. (M.) tuberculata* each have rather isolated position among the members of the subgenus [see diagnoses of them].

Epuraea (Micruria) consanguinea, *E. (M.) convexa*, *E. (M.) harmandi*, *E. (M.) klapperichi* new species and *E. (M.) lisa* in the considered fauna [also *E. (M.) japonica* (Motschulsky, 1860), non Reitter, 1884a (Japan, ? Russian Far East); *E. (M.) aldridgei* Kirejtshuk, 1997b (North Eastern China: Shaanxi = Shensi) and *E. (M.) melanocephala* (Europe, North Africa, Caucasus, Altai Mountains)] represent a more generalized group of the subgenus (*melanocephala*-group), which is characterized by more or less oval and gently convex body, indistinct and moderately dense punctation of dorsum, almost lacking sexual dimorphism in structure of legs, peculiar armature of inner sac of penis involved in its trunk.

Epuraea (Micruria) cerina, *E. (M.) subtilis* and *E. (M.) wittmeri* in the considered fauna [and also *E. (M.) commutata* Grouvelle, 1912/1913 (Japan), *E. (M.) curvipes* Hisamatsu, 1961 (Japan)] can be regarded as somewhat close to the *melanocephala*-group.

The *auripubens*-group comprises such species (somewhat similar to the previous group), as *E. (M.) adolescens* new species, *E. (M.) auripubens* Reitter, 1901, *E. (M.) insolita*, *E. (M.) potaninorum* Kirejtshuk, 1987a, *E. (M.) tschistyakovae* Kirejtshuk, 1987a and *E. (M.) vulpina* new species, which in contrast to members of the *melanocephala*-group have more arcuate and subexplanate pronotal sides, strongly dense punctation and extremely contrasting golden and silver yellowish pubescence.

The *grouvellei*-group is proposed for *E. (M.) grouvellei* and *E. (M.) latitarsis* new species with dark, oval and wide body, obsolete punctation on elytra and strongly developed characters of sexual dimorphism in legs.

The *consorbina*-group includes *E. (M.) bergeri*, *E. (M.) consorbina*, *E. (M.) kompantzevi* new species, *E. (M.) reticulata* and *E. (M.) scapha* new species in the considered fauna [and also *E. (M.) subita* Kirejtshuk, 1992 (Russian Far East)], which are characterized by comparatively gently convex and bright reddish oval body, reduced dorsal punctation and more or less smooth interspaces between punctures, peculiar secondary sexual dimorphism in legs and elytra.

Finally, the *mandibularis*-group unites the species with strongly convex and usually rather elongate body, more or less distinct punctation and short pubescence, such as: *E. (M.) accidentis*, *E. (M.) bullata* new species *E. (M.) calcarifera* new species, *E. (M.) indochinensis*, *E. (M.) mandibularis*, *E. (M.) punctata* and *E. (M.) rhombica* in the considered fauna [and also *E. (M.) dentipes* Hisamatsu, 1961 (Japan) and *E. (M.) dura* Reitter, 1884a (Japan)].

At the same time, *Epuraea (Micruria) atra*, *E. (M.) biplagiata* new species, *E. (M.) himalayaensis* new species and *E. (M.) rotundula* new species and *E. (M.) specialis* new species in the considered fauna [and also *E. (M.) haptoncoidea* Kirejtshuk, 1992 (Russian Far East) and *E. (M.) submicrurula* Reitter, 1884a (Kuriles, Japan)] each have the characters which make establishment of their position and kinship very difficult, although their placement within the subgenus *E. (Micruria)* seems quite evident.

Key to species of subgenus *Epuraea (Micruria)* from the Himalayas and Northern Indochina

1 a. Pronotum with convex or straight base and hind corners more or less rounded or subrectangular, but never projecting posteriorly [only in *E. (M.) klapperichi* new species and *E. (M.) rotundula* new species scarcely distinct sinuation of pronotal base at very widely rounded hind corners) 2

1 b. Pronotum with bisinuate base and its hind corners projecting posteriorly [in some cases base of pronotum very slightly bisinuate, almost straight or convex, but its hind corners usually with a distinct apex - *E. (M.) adolescens* new species, *E. (M.) cerina*, *E. (M.) convexa*, *E. (M.) harmandi*, *E. (M.) himalayaensis* new species, *E. (M.) subtilis*) 14

2 (1) a. Fore tibiae with gradually increasing teeth along outer edge and a subapical tooth slightly bigger and scarcely different in direction [*E. (M.) consanguinea*, *E. (M.) klapperichi* new species and *E. (M.) specialis* new species sometimes have fore tibiae with a small subapical tooth or process downwardly inclined; pronotal sides unexplanate] 3

2 (1) **b.** Fore tibiae with a strong subapical process, differently orientated from teeth along their outer edge; pronotum with various outlines of sides 7

3 (2) a. Head with 2 distinct tubercles at frons and 2 ones at level of hind edge of eyes; fore part of pronotum strongly convex and with a pair of distinct tubercles approaching each other; dorsum chestnut brown and strongly vaulted, with more or less distinct punctation and dense, but fine, short and slightly conspicuous hairs; ventral surface, antennae and legs light brownish. 2.7-2.8 mm. Figs. 424, 425. Male: unknown. North Vietnam . . . . . *E. (M.) tuberculata* Kirejtshuk, 1994

3 (2) **b.** Head flattened or slightly convex, sometimes with a weak de-

pression between antennal insertions; pronotum with evenly convex surface; coloration different; dorsum moderately and evenly convex; pubescence moderately developed, more strongly conspicuous 4

4 (3) a. Outer edge of fore tibiae angularly curved in distal half; elytra slightly shorter than combined width; body comparatively more robust, unicoloured bright reddish with a faint fat sheen on dorsum; hind corners of pronotum especially widely rounded; mid tibiae of both sexes nearly as wide as antennal club. Male: mid tibiae slightly curved. Female: pygidial apex bluntly subacute. 2.1-2.8 mm. Figs. 359-365. China, Fujian ..... *E. (M.) klapperichi* **new species**

4 (3) b. Outer edge of fore tibiae more or less straight or slightly arcuate; elytra as long as combined width or longer; body much more slender and of different coloration; mid tibiae of both sexes narrower than antennal club. Female: pygidial apex widely rounded or subtruncate 5

5 (4) a. Elytra more than twice as long as pronotum, more parallelsided; antennal club almost twice as long as wide; pubescence of dorsum extremely conspicuous; body dark brown with reddish head, mouth parts, edges of pronotum, a subsutural stripe on each elytron, antennae and legs; prosternal process with a narrow apex, slightly curved along coxae and dorsoventraly abrupt. Male: unknown. 2.2 mm. Figs. 415-419. Nepal ..... *E. (M.) specialis* **new species**

5 (4) b. Elytra less than twice as long as pronotum; antennal club clearly less than twice as long as wide; pubescence on dorsum moderately conspicuous; coloration different; prosternal process rather curved along coxae and with a more or less widened apex strongly approaching surface of mesosternum (not dorsovenrally abrupt) 6

6 (5) a. Elytra longer than combined width, with more arcuate sides; body reddish brown with antennae, legs and sometimes elytra light reddish; dorsum with moderately dense and moderately conspicuous pubescence; hind edge of metasternum shallowly emarginate between coxae. Male: mid tibiae simple. 2.2-2.3 mm. Figs. 319-324. Taiwan (China) ..... *E. (M.) consanguinea* Grouvelle, 1914

6 (5) b. Elytra nearly as long as combined width, subparallelsided; unicoloured reddish; dorsum with comparatively sparse and strongly conspicuous pubescence; hind edge of metasternum angularly excised between coxae. Male: unknown. 2.5 mm. Figs. 299-302. Thailand ..... *E. (M.) bullata* **new species**

7 (2) a. Dorsum strongly vaulted and without explanation along pronotal and elytral sides; pronotum narrowed to both fore and hind corners. Male: mid tibiae slightly curved along inner edge 8

7 (2) b. Dorsum evenly convex with distinctly explanate or subexplanate pronotal and elytral sides; pronotal outline various, but only slightly narrowed to hind corners [except *E. (M.) insolita* with widely rounded and explanate sides of pronotum narrowed to both fore and hind corners]. Male: mid tibiae various 10

8 (7) a. Elytra at least twice as long as pronotum and somewhat longer than combined width, with gently rounded outer apical corners; pronotum almost equally narrowed both anteriorly and posteriorly; body unicoloured dark brown, sometimes almost blackish or to light reddish; dorsum less distinctly punctured and almost dull, with hairs about 1.5 times as long as distance between their insertions; fore tibiae nearly as wide as antennal club or slightly narrower, about 4 times as long as wide. Male: fore tarsi about 2/5 as wide as corresponding tibiae. 2.4-3.4 mm. Figs. 384-388. Japan; Korea; China, Heilongjiang, Shaanxi (Shensi) ..... *E. (M.) mandibularis* Reitter, 1873

8 (7) b. Elytra at least twice as longer as pronotum and with more distinct outer apical corners; pronotum markedly more narrowed anteriorly than posteriorly; body light or chestnut brown; dorsum with distinct punctation. Male: fore tarsi about 4/5 as wide as corresponding tibiae 9

9 (8) **a**. Body larger (2.4-3.2 mm), more robust and strongly convex; fore tibiae much wider than antennal club and nearly 3 times as long as wide; elytra somewhat shorter, about as long as combined width; dorsum with hairs about 1.5 times as long as distance between their insertions; coloration of body and appendages more or less uniform. Figs. 357, 358. North Vietnam . . . . *E. (M.) indochinensis* Kirejtshuk, 1990

9 (8) **b**. Body smaller (2.1-2.5 mm), more slender and less convex; fore tibiae nearly as wide as antennal club or slightly narrower, about 4 times as long as wide; elytra somewhat longer than combined width; dorsum with hairs about as long as distance between their insertions; coloration of head, pronotum, antennae and legs somewhat lighter. Figs. 303-310. Nepal; Thailand . . . . . *E. (M.) calcarifera* **new species**

10 (7) **a**. Body more robust and oval, pronotum not narrowed or only slightly narrowed to base at more or less distinct apices of hind corners. Male: mid tibiae in *E. (M.) atra* strongly curved before apex 11

10 (7) **b**. Body more elongate, pronotum rather narrowed to base at rounded hind corners. Male: mid tibiae simple 12

11 (10) **a**. Body somewhat narrower, less oval and more convex; tibiae of normal structure, about as wide as antennal club; pronotum less rounded at sides; dorsum with moderately or very dense and indistinct punctation, dorsal hairs about 3 times longer than distance between their insertions. Female: pygidial apex sharply acute. 1.9-2.4 mm. Figs. 294, 620-623. Nepal; Bhutan; North Vietnam . . . . . *E. (M.) atra* Jelinek, 1978

11 (10) b. Body broader, more oval and less convex; tibiae more stout and markedly wider than antennal club; pronotum much more rounded at sides; dorsum with sparser, very shallow indistinct punctures and hairs about twice longer than distance between their insertions. Male: unknown. Female: pygidial apex bluntly acute. 2.3 mm.

Figs. 399-405. Nepal . . . . . *E. (M.) rotundula* **new species**

12 (10) **a**. Body unicoloured bright reddish; labrum transverse, without medial excision; pronotum with narrowly explanate sides; dorsum with rather deep and extremely dense punctures, more or less distinct microreticulation and golden yellow hairs; hind edge of metasternum almost completely straight between coxae; tarsal claws with a rather weak tooth at base. Female: pygidial apex widely rounded. 2.3-3.5 mm. Figs. 627-634. Russia, Tuva; Mongolia; ? Japan; South East China, including Qinghai Tsinghai, Yunnan, Sichuan . . . . . *E. (M.) auripubens* Reitter, 1901

12 (10) b. Body usually much darker; labrum with a medial excision dividing rounded lobes; dorsum at least with different colour of pubescence; hind edge of metasternum somewhat emarginate between coxae; tarsal claws with a strong tooth at base. Female: pygidial apex more or less acute 13

13 (12) a. Dorsum with very dense and deep punctures, extremely narrow and smooth interspaces, and also comparatively thick, extremely long, very dense and extremely conspicuous silver greyish hairs; reddish brown to blackish with light reddish hypomera, epipleura, antennal stems (flagelli) and legs; tarsal claws very long and strongly toothed at base. Female: pygidial apex narrowly and sharply acute. 2.7-3.5 mm. Figs. 351-356. Pakistan, Punjab; India, „Khesis", Uttar Pradesh; Myanmar (Burma) . . . . . *E. (M.) insolita* Grouvelle, 1908

13 (12) b. Dorsum with moderately dense, shallow and not clearly outlined punctures, with finely microreticulated or alutaceous interspaces, and also with very fine, rather long, moderately dense and rather conspicuous greyish hairs; almost unicoloured dark chestnut brown; tarsal claws moderately long with a normal tooth at base. Female: pygidial apex wider and bluntly acute. 1.9-2.2 mm. Figs. 639-646. China, Sichuan . . . *E. (M.) potaninorum* Kirejtshuk, 1987

14 (1) a. Body with *Haptoncus*-like appearance; temples extended be-

yond outer edges of eyes; labrum with a shallow excision; pronotum widest at base and with a widely subexplanate sides; elytra about as long as combined width, with transversely truncate apices; dorsum with large and very shallow indistinct punctures, cellular and very conspicuous microreticulation on interspaces; short and well conspicuous hairs, nearly as long as distance between their insertions, and rather short ciliae along pronotal and elytral sides; tarsal claws weakly toothed at base. Male: mid tibiae simple. Female: pygidial apex widely rounded. 2.0-2.4 mm. Figs. 286-293. North Vietnam ..... *E. (M.) alutidorsum* **new species**

14 (1) a. Body different, but never *Haptoncus*-like; temples never extended beyond outer edges of eyes, pronotal and elytral sides never ciliate; combination of other characters different 15

15 (14) a. Body broadest at middle of elytra, abruptly narrowed anteriorly and posteriorly, rhomboid (wider and more evident in males, narrower and somewhat obsolete in females), unicoloured reddish; pronotum widest at extremely widely rounded hind corners; elytra somewhat shorter than broad and with transversely truncate apices; dorsum with sparse, shallow and indistinct, rather large punctures, conspicuously and cellularly microreticulated and with hairs scarcely longer than distance between their insertions; fore tibiae without any marked subapical process; tarsal claws comparatively small, but with an extremely strong tooth at base. Male: hind tibiae sharply widened along inner edge at basal fourth. Female: pygidial apex widely rounded. 2.2-2.3 mm. Figs. 395-398. North Vietnam ..... *E. (M.) rhombica* Kirejtshuk, 1990

15 (14) b. Body with elytra gently curved at sides or subparallelsided; pronotal hind sides with acute or narrowly rounded apices [*E. (M.) biplagiata* new species has hind corners of pronotum almost widely rounded, but its body has completely different coloration, gently arched pronotal and elytral sides, much wider tibiae and normally raised tooth at base of tarsal claws]; combination of other characters different 16

16 (15) a. Underside of head with parallelsided antennal ridges resembling continuations of mentum sides, antennal grooves scarcely distinct; labrum with very weak shallow emargination in middle; last segment of labial palpi elongate and slightly bulbous at base, nearly 2.5 times as long as wide; almost unicoloured reddish, only pronotal disc and antennal club a little darker; dorsum with distinct and almost contiguous punctures, much larger (up to 2.0 times) than eye facets, narrow interspaces with rather smooth microreticulation, also with rather dense and extremely conspicuous yellowish golden hairs, about 2.5 times as long as distance between their insertions; fore tibiae with a moderately prominent subapical process with a weakly forked apex; tarsal claws slightly toothed at base. Male: fore tarsi 3/4 as wide as corresponding tibiae, mid and hind ones much narrower. 3.9 mm. Figs. 426, 427. China, Sichuan ..... *E. (M.) vulpina* **new species**

16 (15) b. Underside of head without parallelsided antennal ridges and antennal grooves, if distinct, very weakly outlined; labrum usually distinctly excised [only in *E. (M.) himalayaensis* new species with a very weak medial emargination]; antennal grooves scarcely distinct; last segment of labial palpi much shorter, frequently not longer than width; combination of other characters different 17

17 (16) a. Body strongly convex and robust; pronotum widest at middle, with unexplanate sides, arcuately narrowed to both apex and base, hind corners with sharp apices and distinctly projecting posteriorly; dorsum with sparse and shallow indistinct punctures, smoothly reticulated interspaces and moderately conspicuous hairs; coloration straw reddish; surface of pygidium with very shallow, rather sparse and large punctures, smooth and shiny interspaces; fore tibiae narrower than antennal club; tarsal claws strongly toothed at base. Male: unknown. Female: pygidial apex narrowly rounded. 2.7 mm. Figs. 280, 281. North Vietnam ..... *E. (M.) accidentis* Kirejtshuk, 1990

17 (16) b. Body moderately convex or, if strongly convex, very narrow and subparallelsided; if pronotum widest at middle, sides distinctly

explanate; surface of pygidium with more developed and more dense punctation, never with smooth and shiny interspaces between punctures 18

18 (17) a. Pronotum widest near middle, narrowed to both base and apex, with moderately explanate sides; body unicoloured light brownish; dorsum with shallow and indistinct punctures, smoothly microreticulated interspaces, with long and strongly conspicuous silver yellowish hairs which are 3 times longer than distance between their insertions; fore tibiae with a long subapical process; tarsal claws with a very strong tooth at base. Male: fore tarsi nearly as wide as corresponding tibiae; mid tibiae slightly curved. Female: pygidial apex widely rounded. 2.7-3.7 mm. Figs. 423, 663-669. China, Gansu, Sichuan ..... *E. (M.) tschistyakovae* Kirejtshuk, 1987

18 (17) b. Pronotum, if with explanate or subexplanate sides, widest at base; pubescence on dorsum shorter and less conspicuous [only *E. (M.) adolescens* new species and *E. (M.) himalayensis* new species have pubescence on dorsum rather conspicuous, but their pronotum and other features are very different] 19

19 (17) a. Prosternal process strongly curved along coxae, moderately widened before its flattened and subtruncate apex [only in *E. (M.) specialis* new species carinate, but scarcely widened]; pronotum with truncate or subtruncate fore edge, more steeply sloping and very narrowly explanate, subexplanate or unexplanate sides, hind corners usually with less distinct apices; body generally more convex, narrower and more slender [only *E. (M.) grouvellei* and *E. (M.) latitarsis* new species with body more or less rather wide and oval, as well as *E. (M.) cerina* and *E. (M.) wittmeri* with pronotum slightly emarginate at fore edge, the latter have pronotal sides unexplanate or narrowly subexplanate]; tarsal claws various (if pronotum shaped as that in species of *consobrina*-group, tarsal claws strongly toothed at base) 20

19 (17) b. Prosternal process slightly curved along coxae, more or less carinate and strongly widened before its subangular apex; pronotum with more or less emarginate fore edge, gently sloping to subexplanate or unexplanate sides, hind corners with quite distinct apices; body less and evenly convex, broader and more oval (*consobrina*-group); tarsal claws with a weak tooth at base. 31

20 (19) a. Labrum with a very shallow excision between lobes; elytra longest at suture and with suboblique apices; body bright reddish with a little darkened dorsal surface of head, pronotal disc, elytral apices and metasternum; pronotal surface with distinct and deep punctures, smoothly microreticulated on interspaces; elytral surface with indistinct and very shallow punctures, with cellularly and rather conspicuously microreticulated interspaces; hairs on dorsum not dense, but strongly conspicuous and more than twice as long as distance between their insertions; tarsal claws without a developed tooth at base. Male: unknown. Female: pygidial apex widely rounded, subtruncate. 3.0 mm. Figs 347-350. Nepal ..... *E. (M.) himalayaensis* **new species**

20 (19) b. Labrum with normally deep excision between lobes (never with shallow one); elytral apices truncate, subtruncate or rounded, never oblique; tarsal claws with a raised tooth at base 21

21 (20) a. Body subparallelsided and strongly vaulted; elytra about 1.2 times as long as combined width, with separately and widely rounded apices; dorsum with rather large, deep and quite distinct punctures (more than twice larger than eye facets), smoothly microreticulated interspaces, moderately conspicuous hairs, 1.5-2.0 times as long as distance between their insertions; fore tibiae with a small subapical process; tarsal claws moderately toothed at base. Male: mid tibiae simple. 2.3-2.8 mm. Figs. 650-655. Japan; China, Sichuan, Fujian ..... *E. (M.) punctata* Kirejtshuk, 1992

21 (20) b. Body more or less oval and less convex; dorsum with smaller, shallower or with less distinct punctures 22

22 (21) a. Pronotum more than twice as wide as long; body very dark, dorsum with very small, shallow and indistinct punctures and ex-

tremely contrasting sculpture on interspaces. Male: fore tarsi strongly dilated; mid tibiae strongly curved before apex 23

22 (21) **b**. Pronotum less than twice as wide as long; body more frequently lighter, dorsum at least with coarser and more developed punctation and moderate or conspicuous microreticulation on interspaces (never so contrasting). Male: fore tarsi never so strongly dilated and mid tibiae various 24

23 (22) a. Body subquadrangular and somewhat less convex, usually blackish or rarely dark brown to reddish with lighter appendages, but with dark antennal club; pronotum widest just at base; elytra with slightly curved sides (not infrequently subparallelsided); mesosternum with a slightly raised medial carina. Male: fore tarsi not or slightly wider than antennal club; fore tibiae at least 4 times as long as wide; mid femora with a more developed projection on hind edge in distal half. Female: fore tibiae and tarsi narrower than antennal club. 1.8-2.5 mm. Figs. 340-343. Nepal; Bhutan; India, Darjeeling, Sikkim, West Bengal; Thailand; Vietnam; Malaysia, Malacca peninsula, Borneo; Indonesia, Java ..... *E. (M.) grouvellei* Jelínek, 1978

23 (22) b. Body somewhat more oval and more convex, dark reddish brown with reddish abdomen and appendages or also most underside (except dark meso- and metasternum); pronotum with sides a little narrowed to base; elytra with arcuately curved sides; mesosternum uncarinate along middle. Male: fore tarsi much wider than antennal club; fore tibiae about 3 times as long as wide; mid femora gently outlined along hind edge. Female: fore tarsi and tibiae wider than antennal club. 2.2-2.6 mm. Figs. 372-379, 624-626. North Vietnam, Malaysia, Pehang ..... *E. (M.) latitarsis* **new species**

24 (22) **a**. Pronotum almost rectilinearly narrowed from acute hind corners to apex; elytra nearly 1.2 times as long as combined width; unicoloured reddish or with somewhat darkened elytral discs; dorsum with a faint fat sheen and moderately dense and fine golden hairs, nearly 1.5 times as long as distance between their insertions.

Male: mid tibiae strongly curved before apex; hind femora with almost straight hind edge. 2.7-3.3 mm. Figs. 311-379. Bhutan; India, Darjeeling ..... *E. (M.) cerina* Grouvelle, 1894

24 (22) b. Pronotum always arcuately narrowed forwards; elytra usually shorter 25

25 (24) a. Tarsal claws suberect, their tooth displaced to middle and directed distally; antennal grooves more distinct, well outlined and much more convergent; hind edge of metasternum between coxae scarcely emarginate; body unicoloured chestnut brown; dorsum rather smooth and shiny, distinctly punctured, with strongly conspicuous greyish golden hairs, about 3.0 or more times as long as distance between their insertions, fore tibiae with two prominent subapical processes. Male: unknown. Female: pygidial apex nearly semicircular. 2.5 mm. Figs. 282-285. China, Qinghai Tsinghai ..... *E. (M.) adolescens* **new species**

25 (24) **b**. Tarsal claws normally curved and with a usual tooth (well raised to rather weak); antennal grooves scarcely distinct; dorsum always with a more or less developed microreticulation on interspaces between punctures 26

26 (25) a. Dorsum with shallower, rather sparse and larger, sometimes indistinct punctures, also with well conspicuous and regularly cellular microreticulation on interspaces; fore tibiae without a prominent subapical process. Male: mid tibiae various. Female: pygidial apex widely rounded 27

26 (25) b. Dorsum with denser, smaller and usually more distinct punctures, with somewhat smooth microreticulation on interspaces; fore tibiae various. Male: mid tibiae simple. Female: pygidial apex various 29

27 (26) a. Body somewhat larger (2.3-3.6 mm), broader, with widely subexplanate pronotal sides (widest at narrowly rounded hind corners); dorsum with punctures comparatively well outlined and smal-

ler, interspaces smoother and with a more distinct shine, moderately conspicuous hairs, almost twice as long as distance between their insertions; tarsal claws with a small but distinct tooth at base. Male: fore tarsi nearly as wide as corresponding tibiae; mid tibiae strongly curved before apex. Figs. 428-431. Bhutan; India, Darjeeling; China, Jianxi, Fujian; Japan . . . . . *E. (M.) wittmeri* Jelinek, 1978

27 (26) b. Body somewhat smaller (1.9-3.0 mm); pronotum with unexplanate sides, widest between middle and hind corners; dorsum with less distinct and larger punctures, cellularly microreticulated interspaces and sparser hairs, only slightly longer than distance between their insertions. 28

28 (27) a. Tarsal claws with strong tooth at base; hind corners of pronotum with rounded apices; body less convex and wider, chestnut brown, with reddish elongate light patch on each elytron along suture, mouth parts, antennae, legs, sides of prothoracic segment, epipleura and abdomen. Male: unknown. 2.2 mm. Figs. 295-298. India, Darjeeling . . . . . *E. (M.) biplagiata* **new species**

28 (27) b. Tarsal claws with very weak tooth at base; hind corners of pronotum with rather distinct or subrounded apices; body much more convex and somewhat more slender; coloration extremely variable: from unicoloured reddish to almost blackish with brownish antennal stems (flagelli) and legs. Male: fore tarsi markedly narrower than corresponding tibiae. 1.9-3.0 mm. Figs. 344-346. Russia, Amur region, Khabarovsky and Primorsky Krays, Sakhalin, Kuriles; Japan; Korea; China (as far south as Sichuan and Fujian) . . . . . *E. (M.) harmandi* Grouvelle, 1902

29 (26) a. Tarsal claws with strong tooth at base; pronotum with moderately shallow and less dense punctation and with interspaces at least 1/2 puncture diameter; elytra twice as long as pronotum; antennal club comparatively narrow, about as narrow as fore tibia, 1 3/4 times as long as wide; body smaller (1.6-2.4 mm); unicoloured straw reddish to brownish. Male: mid tibiae simple. Female: pygidial apex widely rounded, subtruncate. Figs. 420-422, 656-662. ? Pakistan, Punjab; India, West Bengal, Assam; Nepal; Bhutan; North Vietnam; Malaysia, Malacca peninsula . . . . . *E. (M.) subtilis* Grouvelle, 1894

29 (26) b. Tarsal claws with weak tooth at base; pronotum with deeper and rather dense punctation, interspaces extremely narrow; elytra more than twice as long as pronotum; antennal club larger and wider, about 1 1/2 times as long as wide; body somewhat larger (1.9-3.4 mm). 30

30 (29) a. Fore tibiae with rather prominent subapical process; elytra with shallow and sparser punctures; dorsum with very dense and more conspicuous hairs; hind edge of metasternum shallowly emarginate between coxae. Female: pygidial apex acute or subacute. 1.8-2.5 mm. Figs. 380-383. China, Sichuan . . . . . *E. (M.) lisa* Kirejtshuk, 1987

30 (29) b. Fore tibiae with one or two weak subapical teeth (processes); dorsum with uniformly dense and deep punctation, but with less conspicuous hairs; hind edge of metasternum clearly angular between coxae. Female: pygidial apex widely rounded. 2.2-3.1 mm. Figs. 334-339. Pakistan; Pakistan, Punjab; India, Himachal Pradesh, Uttar Pradesh; Darjeeling, Sikkim, Assam; Nepal; Bhutan . . . . . *E. (M.) convexa* Grouvelle, 1908

31 (19) a. Body more gently outlined and less convex; elytra longest at suture in both sexes (males with subacute, females usually with almost acute apices); reddish, frequently with darkened pronotal disc, lateral and apical parts of elytra; dorsum with a faint fat sheen. Male: mid femora concave along hind edge; mid tibiae strongly dilated and somewhat curved at distal half; hind femora with very and gently convex hind edge. 3.1-3.8 mm Figs. 325-333. Myanmar (Burma). . . . . *E. (M.) consobrina* Grouvelle, 1892

31 (19) b. Body more robust and more convex; elytra in males never longest at suture (but in some males of *E. (M.) kompantzevi* new species nearly suboblique) forming a joint curve 32

32 (31) a. Elytral apices subtruncate in both sexes 33

32 (31) b. Elytral apices subtruncate in males and subacute in females 34

33 (32) a. Dorsum more densely and finely punctured, scarcely shiny, with denser and longer pubescence; prosternal process with well developed carina and slightly curved along coxae. Male: hind femora with very prominent projection at proximal half of hind edge; hind tibiae with somewhat excavate surface in distal half (as in *E. (M.) scapha* new species). 2.2-3.5 mm. Figs. 635-641. Russia, Amur region, Khabarovsky and Primorsky krays, Sakhalin, Kuriles; Japan; Korea; China, including up to Fujian ..... *E. (M.) bergeri* Sjöberg, 1939

33 (32) b. Dorsum with much sparser, very shallow and indistinct punctures, rather shiny, but with a more or less distinct microreticulation on interspaces, moderately dense and shorter pubescence; prosternal process with weak carina and strongly curved along coxae. Male: hind femora with less prominent projection at proximal half of hind edge (sometimes very weak); hind tibiae simple. 2.6-3.3 mm. Figs. 389-394. Pakistan, Punjab; India, Uttar Pradesh, Darjeeling, West Bengal, Sikkim, Assam; Nepal; Bhutan; Myanmar (Burma); North Vietnam; Malaysia, Penang ..... *E. (M.) reticulata* Grouvelle, 1892

34 (32) a. Body somewhat more convex, unicoloured straw reddish; dorsum with more distinct punctation and less shiny. Male: elytra much shorter than combined width; hind femora with rather prominent projection at proximal half of hind edge; mid and hind tibiae with strong excavation on dorsal side, 2.5-2.9 mm. Figs. 406-414. North Vietnam ..... *E. (M.) scapha* **new species**

34 (32) b. Body somewhat less convex, unicoloured bright reddish, frequently with more or less darkened lateral and apical parts of elytra; dorsum usually with extremely shallow and indistinct punctures and very smooth microreticulation on interspaces. Male: elytra

at least as long as combined width; hind femora with gently convex hind edge; mid and hind tibiae simple. 2.4-3.9 mm. Figs. 366-371. North Vietnam ..... *E. (M.) kompantzevi* **new species**

Epuraea (Micruria) accidentis Kirejtshuk, 1990

Figs. 280, 281; Map 9, a

=*Epuraea (Micrurula) accidentis* Kirejtshuk, 1990a: 65 (North Vietnam).

Material - holotype (ZISP - Kirejtshuk, 1990a).

Diagnosis: This species is obviously related to *E. (M.) indochinensis* and forms similar to it [see notes on *E. (M.) calcarifera* new species]. It can be reliably diagnosed according to characteristic structure of the ovipositor [abnormally widened and with characteristic shape of sclerites similar to that in *E. (M.) bullata* new species]. *E. (M.) accidentis* can be distinguished according to the above key.

Bionomy: The holotype of this species was originated from mountains and was collected in March.

Distribution: This species is known only from the type locality: Vietnam, Thai Nguyên.

Epuraea (Micruria) adolescens new species

Figs. 282-285

Material -

China: holotype, female (ZSM) - „Thibet, Kuku-Nor, 3200 m, F. Hauser, 1898".

Description of holotype (female): Length 2.5, breadth 1.3, height 0.8 mm. Rather convex dorsally and moderately ventrally; unicoloured chestnut brown; dorsum and ventral surface rather shiny; dorsum with

recumbent, strongly conspicuous greyish golden hairs, about 3.0 or more times as long as distance between their insertions; ventral surface with shorter and much less conspicuous pubescence. Head and pronotal surface with distinct oval punctures nearly as large as eye facets, interspaces between them nearly half to one puncture diameter, smooth and shiny. Elytral surface almost as that on head and pronotum, but interspaces between punctures somewhat broader and somewhere finely alutaceous. Pygidium with the same punctures as those on other dorsal sclerites, but significantly denser, interspaces between them extremely finely and densely alutaceous. Ventral surface a little similar to that on dorsum, although with smaller and sparser punctures on ventrites, space between them with rather smooth microreticulation, prosternal surface unpunctured and extremely finely and densely microreticulated, almost dull. Head 3/4 as long as distance between comparatively large eyes, flat; eyes composed of moderately small facets. Mandibles slightly exposed before labrum. Antennal grooves well outlined behind mentum. Last labial palpomere narrowed to apex, a little longer than width at its base. Antennae nearly as long as head breadth, club nearly 1/3 total antennal length and about 1.5 times as long as wide, consisting of segments with subequal length, penultimate one somewhat wider than previous and following ones. Pronotum moderately and evenly convex, with truncate apex and gently sloping sides to scarcely subexplanate lateral edges. Scutellum subtriangular with narrowly rounded apex. Elytra a little longer than combined width; sides steeply (subvertically) sloping to unexplanate side edges, apices transversely subtruncate and forming a blunt sutural corner. Pygidium moderately exposed from under elytra and flattened, apex nearly semicircular. Prosternal process strongly curved along coxae, its widely rounded apex approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 3.5 times more than that between mid coxae. Mesosternum without a distinct carina. Metasternum slightly convex and with a raised medial suture in distal quarter before its hind edge, very shallowly and arcuately emarginate between hind coxae. Ventrite 1 about as long as ventrites 2-4 together or as long as hypopygidium, latter with a widely rounded apex. Epipleura slightly wider than antennal club. Legs moderately developed and narrow. Tibiae subequal in width or narrower than antennal club, with

straight outer edge, two very prominent subapical processes on fore tibiae and a strong subapical spine on mid and hind ones; outer edge of mid tibia with two rows of stout spinae, hind tibia with rows of thinner spinae. Femora with fore and hind edges gently convex, fore and mid ones nearly 1.5 times as wide as corresponding tibiae, but hind about 2.0 times wider than hind tibiae. Fore tarsi 3/5 as wide as corresponding tibiae, mid and hind ones somewhat narrower; claws strongly toothed near middle.

D i a g n o s i s: *Epuraea (Micruria) adolescens* new species is characterized by scarcely emarginate hind edge of metasternum between hind coxae [among the members of the subgenus *E. (Micruria)* this feature occurs also in the east-palaearctic *E. (M.) auripubens* Reitter, 1901, *E. (M.) harmandi*, *E. (M.) potaninorum* Kirejtshuk, 1987a and indo-malayan *E. (M.) subtilis*], smooth and very shiny integument and shape of tarsal claw. Nevertheless, this new species is probably rather related only to *E. (M.) potaninorum*, but differs from it in its less slender and more shiny body with more rounded pronotal and elytral sides; labrum more exposed and only with a deeper medial excision; antennal grooves more distinct, well outlined and much more convergent [in *E. (M.) potaninorum* they are scarcely outlined and slightly expanded behind mentum]; last labial palpomere slightly longer than its width at base [in *E. (M.) potaninorum* nearly twice as long as wide]; fore tibia with 2 subapical processes; tarsal tooth displaced to the middle. Tarsal claws of this new species are partly similar to those in *E. (M.) insolita*. Moreover, in general this new species, due to its pronotal shape resembles *E. (M.) auripubens*, *E. (M.) insolita*, *E. (M.) tschistyakovae* Kirejtshuk, 1987a, *E. (M.) vulpina* new species, but differs from them in characters of integument, 2 subapical processes on fore tibiae, shape and development of antennal grooves.

N o t e s: Amongs specimens of *Epuraea* from Sichuan a female (ZIN - „dol. r. Fubyan-Kho (Fu-bjanj), 5-VIII-93, Potanin") looks very similar to the holotype of *E. (M.) adolescens* new species, but is smaller (length 2.2 mm) and much lighter (straw coloured) with golden and extremely conspicuous pubescence, hind margin of metasternum between coxae angularly excised, fore tibiae with small subapical

teeth, mid and hind tibiae with moderately raised spinae, and tarsal claws with a strong but normally shaped tooth at base.

Bionomy: This species has been collected at elevations of 3200 m above sea level, probably in mountain forest.

Distribution: This species is known only from its type locality: China, Thibet, Qinghai Tsinghai, Quinghai („Kuku-Nor"). Another studied specimen which can be conspecific with the holotype is originated from Sichuan (north western of Lixian: „Fu-bjanj").

Etymology: The Latin name of this new species means „young, junior, youngster".

Epuraea (Micruria) alutidorsum new species

Figs. 286-293; Map 9, b

Material -
total 6, including holotype (SMNS), 5 paratypes (NMW, SMNS, ZISP)
-
Thailand: **holotype**, male (SMNS) and 2 **paratypes** (SMNS, ZISP) - „Amphoe Wang Chin, Ban Den, 26-29.12.1988, 200 m, Trautner & Geigenmüller";
Vietnam: 3 **paratypes** (NMW, ZISP) - „25.V-10.VI.1991, Sapa (Lao Cai), 22°20'N 103°50', E. Jéndek".

Description of holotype (male): Length 2.2, breadth 1.1, height 0.6 mm. Rather convex dorsally and moderately ventrally; unicoloured bright reddish; with a faint fat sheen; with recumbent, very fine and slightly conspicuous yellowish hairs a little longer than distance between their insertions. Head, pronotal and elytral surface with extremely shallow, scarcely outlined punctures nearly as large as eye facets, interspaces between them somewhat broader than a puncture diameter, with distinct and very contrasting, dense and fine cellular microreticulation. Surface on pygidium and preceding tergite uncovered by elytra with obsolete and sparser punctation than that on other dorsal sclerites, smo-

othly and very densely microreticulated on interspaces. Ventral surface a little similar to that on pygidium, but with smoother interspaces between punctures; punctures on metasternum especially small but rather distinct, interspaces between them almost smooth; prosternal surface nearly unpunctured and extremely finely and densely cellularly microreticulated, dull.Head 2/3 as long as distance between comparatively large eyes, scarcely and evenly convex; eyes composed of moderately small facets. Mandibles slightly exposed before labrum. Antennal grooves more or less clearly outlined behind mentum, slightly deepened, with minimal distance behind mentum of 2/3 of width of mentum (or slightly more than width of antennal club). Mentum of usual configuration, 4 times as wide as long. Antennae somewhat longer than head breadth, club nearly 2/7 total antennal length. Pronotum moderately and evenly convex, with abrupt apex and gently sloping sides to scarcely subexplanated edges. Scutellum subtriangular with a narrowly rounded apex. Elytra a little longer than combined width; sides not so steeply sloping to subexplanate side edges, apices almost transversely truncate and forming a blunt sutural corner. Pygidium completely exposed from under elytra and convex, apex slightly rounded; apex of anal sclerite exposed from under pygidium, widely rounded. Prosternal process strongly curved along fore coxae before its flat and shortly abrupt apex and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 3.0 times broader than that between mid coxae. Mesosternum without a distinct carina. Metasternum slightly convex, with a distinct medial suture in distal 2/3, with very shallowly and arcuately emarginate hind edge between coxae. 1st ventrite somewhat shorter than hypopygidium, latter scarcely bisinuate at apex. Epipleura almost 1.5 as wide as antennal club. Legs moderately developed and narrow. Tibiae a little narrower than antennal club, with straight outer edge, mid and hind ones with thick and comparatively long spines before apex, but setae along their outer edge very thin and scarcely different from usual hairs. Femora with fore and hind edges gently curved, fore ones less than twice, mid and hind ones nearly 2.5 times as wide as corresponding tibiae. Fore tarsi a little narrower than corresponding tibiae, mid and hind ones somewhat narrower; claws slightly toothed near middle. Aedeagus moderately sclerotized.

Female: Externally differs from male only in widely rounded apices of pygidium and hypopygidium. Ovipositor slightly sclerotized.

Variations: Length 2.0-2.4, breadth 1.0-1.2 mm. All studied specimens are comparatively uniform and only a narrow range of variability is present in body sculpture.

Diagnosis: This new species has general body shape and of each sclerite (head, pronotum, elytra and so on), peculiarities of sculpture, widely separated hind coxae and shallowly emarginate hind edge of metasternum between them, and toothed tarsal claws like those of many representatives of *E. (Micruria)*. Nevertheless, exposed sharp temples beyond eyes are as in many forms of *E. (Haptoncus)*, and this feature as well as small size make identification of it rather easy among other members of the subgenus. *E. (Micruria) alutidorsum* new species has some resemblance to a group of mainly indochinese species with comparatively convex body, abruptly truncate elytra, more or less sparse and distinct punctation and very conspicuous microreticulation on interspaces [see diagnosis on *E. (M.) calcarifera* new species].

Bionomy: The imagines of this species have been collected in June and December, probably in mountain forest.

Distribution: This species is known only from Indochina: Thailand (Amphoe Wang Chin (Ban Den): type locality) and Vietnam [Sa Pa (Lao Cai)].

Etymology: The name of this new species is formed from Latin „alutaceus" (alutaceous, leather) and „dorsum" (back).

Epuraea (Micruria) atra Jelínek, 1978

Fig. 294, 620-623; Map 9, c

=*Epuraea (Micrurula) atra* Jelínek, 1978: 173, 195 (Bhutan; holotype - NMB, 2 paratypes - NMB, NMP).

Material -
total 5, including 1 paratype (NMB) -
Bhutan: 1 **paratype** (NMB) - „Nat.-Hist. Museum Basel - Bhutan Expedition 1972", „km 87 von Phuntsholing, 22/5";
Nepal: 1 (BMNH) - „Tate, 13-14.VI.52", „British Nepal Expedition 1952, T.D. Bourdillon"; 1 (ZISP) - „W. Nepal, 1992, Pokhara, 2.VI, Chharti Patan, J. Moravec"; 1 (MHNG) - „Lalitpur Distr., Phulcoki, 2550 m, 15.X.83, Smetana & Löbl"; 1 (NMB) - „Kathmandu V., Godavari, 1500 m", „21-27.V.1989, M. Brancucci";
Vietnam: 1 (ZISP) - „Kurort (health resort) Tam dao, 900 m, 14.5.1962, Kabakov".

Redescription: Length 2.8-3.1, breadth 1.4-1.5, height 0.7 mm. Moderately convex dorsally and ventrally; brown with darkened medial parts of dorsal and thoracic sclerites up to almost blackish, but fore part of head with mouth parts, antennae, legs, pronotal sides, epipleura, and frequently abdominal apex more or less lighter (to reddish or yellowish); dorsum and ventral surface moderately shiny; dorsum with recumbent, strongly conspicuous greyish hairs, nearly twice as long as distance between their insertions; ventral surface with shorter and much less conspicuous pubescence. Head and pronotal surface with large and not quite distinct oval punctures, more than twice as large as eye facets, interspaces between them about a third to half a puncture diameter, with smooth microreticulation, punctation strongly reduced before fore edge of head. Pronotal disc and elytral surface with somewhat sparser punctation, interspaces between punctures somewhat larger and more conspicuously microreticulated. Pygidium surface as on other upper sclerites, but punctures significantly smaller and interspaces between them extremely distinctly microreticulated. Ventral surface a little similar to that on pygidium, although with smaller and less distinct punctures on ventrites and space between them with rather smooth microreticulation, prosternal surface unpunctured and extremely densely and cellularly microreticulated. Head 3/4 as long as distance between comparatively large eyes, transversely depressed between antennal insertions; eyes composed of moderately small facets. Mandibles moderately exposed before labrum. Antennal grooves slightly outlined, well concave behind mentum, distinct furrow present along inner edge of each

eye. Last labial palpomere feebly narrowed to apex, a little longer than width at base. Antennae nearly as long as head breadth, club nearly 1/3 total antennal length and about 1.5 times as long as wide, consisting of segments with subequal length, penultimate segment somewhat wider than previous and following ones. Pronotum moderately and evenly convex, gently sloping to scarcely subexplanated lateral edges. Scutellum subtriangular with a rounded apex. Elytra a little longer than combined width; sides steeply (subvertically) sloping to extremely narrowly explanate side edges, apices transversely and regularly truncate. Pygidium moderately exposed from under elytra and a little convex, apex subtruncate in male and nearly semicircular in female. Prosternal process strongly curved before its convex apex along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones about twice as that between mid ones. Mesosternum without a distinct carina. Metasternum slightly convex and with a raised medial suture in distal fourth before its hind edge, comparatively deeply and arcuately excised between hind coxae. Ventrite 1 about as long as ventrites 2-4 together or as long as hypopygidium, latter widely rounded at apex. Epipleura slightly wider than antennal club and elevated laterally. Legs moderately developed and narrow. Fore tibia subtriangular with raised subapical tooth (sometimes forked at apex), as wide as antennal club in male and somewhat narrower in female. Mid and hind tibiae markedly narrower than fore, with straight outer edge before a strong spine; outer edge of mid tibia with rows of moderately stout spines, that of hind tibia with rows of thinner spines. Male mid tibia sharply curved and widened at apex. Femora with fore and hind edges gently convex, fore and mid ones nearly 1.5 times as wide as corresponding tibiae, but hind one about 2.0 times wider than hind tibia. Fore tarsi as wide as corresponding tibiae in male and about 2/3 in female, mid and hind ones much narrower; claws small and distinctly toothed at base. Aedeagus and ovipositor moderately (not heavily) sclerotized.

V a r i a t i o n s: One female from Nepal (ZISP) and a female (paratype) from Bhutan possess an almost yellowish abdominal apex, but the male from Nepal (MHNG) and female from Vietnam have a dark abdomen coloured as most of the dorsum.

D i a g n o s i s: The dark coloration of this species is similar like in *E. (M.) grouvellei*, *E. (M.) latitarsis* new species and *E. (M.) biplagiata* new species, although it is easily distinguishable from the first two species by the larger and more slender body with contrasting yellowish appendages, distinctly subexplanate (almost explanate) pronotal sides, long elytra, shape of antennal grooves, mesosternum without any trace of medial carina [present in *E. (M.) grouvellei*], smaller distances between mid and hind coxae, distinctly emarginate hind edge of metasternum between coxae, shiny surface with sparser and coarser punctation, less curved mid tibia of male and aedeagal structures; from the last species by the larger and more slender body, characters of coloration and subexplanate pronotal sides, much narrower legs with less raised subapical tooth or spur on mid and hind tibiae, finer and somewhat denser setae along mid and hind tibiae, abrupt prosternal process, arcuate emargination of hind edge of metasternum between coxae and more narrowly rounded pygidial apex in female. Finally, this species has some resemblance to *E. (M.) specialis* new species differing from it in more oval and less convex body, characters of coloration, punctation and sculpture of surface, less conspicuous pubescence, slightly emarginate fore edge of labrum and more projecting pygidial apex.

B i o n o m y: The imagines of this species are recorded in May, June and October from mountain forest, mostly located at elevations 2000 m above sea level and above.

D i s t r i b u t i o n: This species is known from Nepal [Pokhara (Chharti Patan), Gadavari (Kathmandu valley), „Tate", Phulckoki (Kathmandu valley)], Bhutan (Phuntsholing: type locality) and Vietnam (Tam Dao).

Epuraea (Micruria) bergeri Sjöberg, 1939

Figs. 635-641

=*Epuraea (Epuraea) bergeri* Sjöberg, 1939: 110, 121 (East Siberia, Japan); Hayashi, 1982: 14, 33 (larva); Hisamatsu, 1985: 182; *Epuraea (Micrurula) bergeri*: Kirejtshuk, 1992: 125 (Russia, Amur region, Kha-

barovsky and Primorsky krays, Sakhalin, Kuriles; Japan; Korea; China, including up to Fujian).

Material -
total some thousands, including lectotype (ZISP) and 42 paralectotypes (ZISP) -
China: 6 (SNF, ZISP) - „Kuatum, Fukien, 6.9.46 (Tschung Sen)" (5.4.46, 12.5.46);
Russia: type series collected in and near Vladivostok (Primorsky kray) - **lectotype**, male(ZISP), here designated - „Vladivostok, b. Peschanaya, bl. ust'ya (mouth of) Amba-biry, 31.VIII.914, Rimsk. Korsakov"; **paralectotypes**: 1 (ZISP) - „Vladivostok, Christoph, IX.76"; 23 (ZISP) - „Vladivostok, Prim. obl., Berger, 13-26.VIII.911" (17-30.VIII.1911); 8 (ZISP) - „Yu. st. Zolot. Roga, Vlad., Prim. obl., Berger, 27.VII.911" („19.VIII.911", „7.IX.913", „16.VI.914", „4.VIII.914"); 1 (ZISP) - „Chernigovka, Prim. o. Emelyanov, 16.VI.914"; 5 (ZISP) - „St. Okeanskaya, Prim. obl., Berger, 18-31.VIII.911" („19.VIII-1.IX.911"); 1 (ZISP) - „B. Tulamy, Slavyansk. zal., Prim. obl., 22.VII.911"; 2 (ZISP) - „Sedanka, bl. Vladivostok, Prim. o., Emelyanov, 27.VII.923"; 1 (ZISP) - „2.VII-1.VIII.60, Vulfius"; and some thousands from many parts of the Russian Far East and Korea deposited in different collections, including lectotype (ZISP) and paralectotypes (ZISP).

Diagnosis: This species evidently belongs to the *consobrina*-group (see below) being one of a pair of members of this group occuring mainly or completely in the Palaearctic region [another is *E. (M.) subita* Kirejtshuk, 1992]. *E. (M.) bergeri* is well characterized mainly by dense punctation and very long and dense pubescence, sexual characters of elytral apices and legs and also genital structures [see below - diagnosis to *E. (M.) consobrina* and other members of the *consobrina*-group]. Both palaearctic species are characterized by a comparatively convex body with evenly rounded elytral apices in each sex. At the same time, these palaearctic representatives are easily distinguished according to the key for the fauna of the Russian Far East (Kirejtshuk, 1992).

Bionomy: This species is very usual visitor on inflorescences of different trees and bushes in different types of deciduous forests of the Russian Far East and its larval development is recorded on decaying flowers of *Pieris japonica*, oozing sap on oak and fermenting apple-fruit (Hayashi, 1978). The imagines are active and larval development occurs mostly during late spring.

Distribution: This species is attributed to the faunistic complex of the East Chinese (Palaearchearctic) province of the Palaearctic region occuring in the Russian Far East [Amur region, Khabarovsky and Primorsky krays (including Vladivostok: type locality), Sakhalin, Kuriles]; Japan; Korea; China, including up to Fujian („Kuatum" = Aotou, see Map 5 e - *E. (E.) funeraria*).

Epuraea (Micruria) biplagiata new species

Figs. 295-298; Map 9, d

Material -
total 2, including holotype (ZSM) and 1 paratype (ZISP) -
India: **holotype**, female (ZSM) and 1 **paratype**, female (ZISP) - „Darjeeling, W.B., Tiger-Hill, 2595 m, VI.1961, G. Scherer".

Description of holotype and paratype (females): Length 2.2, breadth 1.2, height 0.7 mm. Rather convex dorsally and moderately ventrally; chestnut brown, reddish elongate light patch on each elytron along suture, mouth parts, antennae, legs, sides of prothoracic segment, epipleura and abdomen; dorsum and ventral surface moderately shiny; body with recumbent (or partly subrecumbent), moderately dense and conspicuous greyish hairs, somewhat longer (up to 1.5 times) than distance between their insertions. Head surface with distinct oval punctures, much larger (up to 1.5 times) than eye facets, interspaces between them narrower than half a puncture diameter and almost smooth. Pronotal surface with much larger and sparser punctures than those on head, separated on disc by up to a puncture diameter, interspaces between them with dense and smooth cellular microreticulation. Elytral surface nearly similar to that on pronotal disc, but punctures somewhat shal-

lower and interspaces between them with more conspicuous microreticulation. Pygidial surface as that at pronotal sides, with distinct cellular microreticulation. Ventral surface somewhat similar to that on pygidium but punctures smaller (nearly as large as eye facets or smaller), middle of prosternum with scarcely traced punctation, sides of metasternum with larger and denser punctures, interspaces with more or less distinct microreticulation. Head a little shorter than distance between eyes, flattened; eyes composed of moderately small facets. Mandibles rather far exposed before labrum. Antennal grooves scarcely visible at sides of mentum. Last labial palpomere bulbous and somewhat narrowed to transversely abrupt apex, a little longer than wide. Mentum trapezoidal, nearly 2.5 times as wide as long. Antennae somewhat shorter than head breadth, club nearly 1/3 total antennal length. Pronotum moderately and evenly convex with shallowly emarginate apex and subexplanate sides only at hind corners. Scutellum subtriangular with a widely rounded apex. Elytra scarcely longer than combined width; sides steeply (subvertically) sloping to unexplanate lateral edges, very widely rounded (almost transversely subtruncate) apices and forming a blunt sutural corner. Pygidium scarcely exposed from under elytra, with curved downwardly and bluntly acute apex. Prosternal process strongly curved before its not so expanded and its acute apex (nearly shaped as parallelogram) along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 2.5 times broader than that between mid coxae. Mesosternum without any developed medial carina. Metasternum flattened and with a raised medial suture in distal half before hind edge, angularly and moderately excised between hind coxae. Ventrite 1 somewhat longer than combined length of ventrites 2-4 and than hypopygidium with widely rounded apex. Epipleura nearly as wide as antennal club. Legs moderately developed. All tibiae narrow, fore one narrower than antennal club with two narrow subapical processes, mid and hind ones as wide as antennal club with raised spines along their outer edge. Femora with gently outlined fore and hind edges, fore and mid ones nearly 2.0 times, but hind one about 2.5 times wider than corresponding tibiae. Fore tarsi nearly as wide as corresponding tibiae, mid and hind ones much narrower; claws strongly toothed at base. Ovipositor slightly sclerotized.

Diagnosis: *Epuraea (Micruria) biplagiata* new species is similar to some members of the subgenus *E. (Micruria)*, which includes *E. (M.) consanguinea*, *E. (M.) grouvellei*, *E. (M.) latitarsis* new species and in particular *E. (M.) rotundula* new species. The present new species is quite recognisable due to its characteristic coloration, more or less distinct and nearly even punctation and normal microreticulation on dorsal sclerites [see also notes to *E. (M.) atra*].

Bionomy: The imagines of this species are recorded in June at elevations of 2000 m above sea level, probably in mountain forest.

Distribution: This species is known only from its type locality: India, West Bengal, Darjeeling (Tiger-Hill).

Etymology: The Latin name of this new species means „two-striped" (bi- and plaga - „region, belt, stripe, zone").

Epuraea (Micruria) bullata new species

Figs. 299-302; Map 9, c

Material -

Thailand: **holotype**, female (SMNS) - „10-13.05.1993, 19°27N 98°20E, Soppong, 1550 m, L. Bocák".

Description of holotype (female): Length 2.5, breadth 1.2, height 0.7 mm. Rather convex dorsally and ventrally; unicoloured reddish, with faint fat sheen; body with recumbent, moderately dense and conspicuous golden hairs, about 2.5 times longer than distance between their insertions. Head and pronotal surface with not quite distinct shallow oval punctures, about twice as large as eye facets, interspaces between them less than half a puncture diameter, with dense and conspicuous cellular microreticulation. Elytral, pygidial and hypopygidial surface nearly similar to that on head and pronotum, but punctures shallower and less distinct. Ventral surface (except hypopygidial one) with much smaller punctures and smoothly microreticulated interspaces, middle of metasternum with distinct and deep punctures, 1.5 times as

large as eye facets, interspaces between them half a puncture diameter; prosternal punctation obsolete. Head 3/4 as long as distance between eyes, slightly depressed between antennal insertions. Antennae somewhat shorter than head breadth, club nearly 2/7 total antennal length. Pronotum and elytra with steeply sloping and unexplanate sides, elytral apices abruptly truncate. Pygidium with subtruncate short apex. Antennal grooves undeveloped. Last labial palpomere slightly longer than wide. Mentum trapezoidal, nearly 3 times as wide as long. Prosternal process strongly curved before its transverse apex along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 3 times broader than that between mid ones. Mesosternum without any developed medial carina. Metasternum with a well raised medial suture in distal 2/3, its hind edge angularly excised between coxae. Epipleura nearly as wide as antennal club. All tibiae simple, narrower than antennal club, fore ones with a small subapical tooth. Femora with gently outlined fore and hind edges, a little more than 1.5 times as wide as tibiae (or about as wide as antennal club length). Fore tarsi nearly 1/2 as wide as corresponding tibiae, mid and hind ones much narrower; claws strongly toothed at base. Ovipositor slightly sclerotized.

D i a g n o s i s: This species is most similar to *E. (M.) convexa* and *E. (M.) subtilis*, having a somewhat intermediate appearance betweem them, but is well distinguished from them by abruptly truncate elytral apices and exceptional structure of ovipositor. Moreover, this new species differs from the first in a little more slender body [somewhat like *E. (M.) convexa* var. *persimilis*], shallower punctation on dorsum, elongate antennal club and strong tooth at base of tarsal claws; from the second species in more robust and larger body, wider and larger antennal club, more abruptly truncate elytral apices, shape of labral lobes, coarser and somewhat more distinct punctation (especially on elytra). However, ovipositor of this species shows a marked similarity to that in *E. (M.) accidentis*, differing from the latter in smaller and more oval body, shorter pronotum without emargination at hind corners and lack of subapical projecting tooth on outer edge of fore tibiae.

B i o n o m y: The holotype of this species is collected in May at elevations of 1550 m above sea level, probably in mountain forest.

D i s t r i b u t i o n: This species is known only from its type locality: Thailand, Soppong.

E t y m o l o g y: The Latin name of this new species is formed from „bulla" (bubble, blister, convexity).

Epuraea (Micruria) calcarifera new species

Figs. 303-310; Map 10, a

M a t e r i a l -
total 8, including holotype SMNS) and 7 paratypes (SMNS, ZISP) -
Thailand: holotype, male (SMNS) and 6 **paratypes** (SMNS, ZISP) - „10-13.05.1993, 19°27N 98°20E, Soppong, 1550 m, L. Bocák" (V. Kubán);
Nepal: 1 **paratype** (ZISP) - „60 km NW Pokhara Dana, 1400 m, leg. Wewalka, 9.5.1984".

D e s c r i p t i o n of holotype (male): Length 2.5, breadth 1.2, height 0.7 mm. Rather convex dorsally and ventrally; brownish with a somewhat lighter pronotum; dorsum and ventral surface somewhat shiny; dorsum with hairs slightly longer than distance between their insertions; underside with sparser and less conspicuous hairs. Head surface with more or less distinct oval punctures, nearly as large as eye facets, interspaces between them somewhat less than one puncture diameter, finely and cellularly microreticulated. Pronotal surface with shallower but quite distinct punctures, about 1.5 times larger than eye facets, interspaces between them somewhat narrower than those on head, finely and cellularly microreticulated. Elytral surface nearly similar to that on pronotum, but punctures somewhat larger and interspaces between them with more conspicuous microreticulation. Surface of pygidium and ventral sclerites nearly as that on other dorsal ones, but punctures smaller and sparser, interspaces between them rather smooth, prosternum finely alutaceous and unpunctured, middle of metasternum with denser

punctures than those on surrounding sclerites and interspaces smoother. Head scarcely shorter than distance between eyes, shallowly concave between antennal insertions. Antennae somewhat shorter than head breadth, club comparatively small, up to 1/4 total antennal length. Pronotum and elytra strongly vaulted, sides steeply sloping and unexplanate, elytral apices straight transversely truncate. Pygidium with narrowly abrupt apex, under which only a widely rounded apex of anal sclerite is narrowly exposed. Prosternal process strongly curved along coxae and its transverse apex approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 1.5 times broader than that between mid coxae. Mesosternum without any developed medial carina. Metasternum flattened and with a raised medial suture in distal half before its hind edge which is angularly and moderately excised between coxae. Epipleura somewhat narrower than antennal club. All tibiae rather stout, fore ones strong and with very prominent subapical process; mid ones a little narrower than fore, with outer edge somewhat curved and bearing two rows of rather stout and sparse spines; hind ones more subtriangular and with similar armature to that on mid tibiae. Femora with gently outlined fore and hind edges, about as wide as corresponding tibiae. Fore tarsi scarcely narrower than corresponding tibiae, mid and hind ones much narrower; claws strongly toothed at base. Aedeagus moderately sclerotized.

F e m a l e: Differs from the male only in slightly narrower fore tarsi and more narrowly rounded pygidial apex.

V a r i a t i o n s: Length 2.0-2.5 mm. Pronotum lighter or coloured as rest of body - from reddish to brown. A certain variability is also present in punctation and sculpture.

D i a g n o s i s: This new species is evidently very close to *E. (M.) mandibularis* and *E. (M.) indochinensis*, differing from both by the characters given in the above key. It has a rather convex body with obliquely or transversely truncate elytra forming distinct external corners, also with comparatively sparse punctation and strong and contrast cellular microreticulation, simple mid tibiae in males showing more resemblance to some (mainly indochinese) species, defined as the *mandibularis*-group [or tentative „*indochinesis*-group": such as *E. (M.) accidentis*; *E. (M.) bullata* new species, *E. (M.) indochinensis*; *E. (M.) rhombica*], but apart from genital structures it differs from:

- *E. (M.) accidentis* in smaller body size, darker coloration, characters of punctation and sculpture, as well as in the completely different structure of ovipositor;
- *E. (M.) bullata* new species in somewhat slender body with more gradually rounded elytral sides both anteriorly and posteriorly, characters of punctation and sculture, much less conspicuous pubescence and more prominent subapical tooth on fore tibiae;
- *E. (M.) indochinensis* in smaller, shorter, less convex and lighter body, wider pronotal base, subacute hypopygidial apex in males and more prominent subapical tooth of fore tibiae;
- *E. (M.) rhombica* in more slender body, pronotal and elytral shape, wider antennal club, subacute hypopygidial apex in males and wider tibiae with more prominent subapical tooth of fore ones.

Moreover, *E. (M.) calcarifera* new species also has some resemblance to *E. (M.) convexa*, differing from it in pronotal shape with more narrowed base, shorter elytra with abruptly truncate apices, wider tibiae with more prominent subapical tooth of fore ones, more distinct and sparse punctation and less conspicuous and shorter pubescence, strongly toothed tarsal claws.

B i o n o m y: The imagines of this species have been collected at elevations between 1400 and 1550 m above sea level in May, probably in mountain forest.

D i s t r i b u t i o n: This species is known only from Nepal (northwestern of Pokhara Dana) and Thailand (Soppong: type locality).

E t y m o l o g y: The name of this new species is formed from Latin „calcar" (spur) and „fero" (to carry, to bear, to wear).

Epuraea (Micruria) cerina Grouvelle, 1894

Figs. 311-318; Map 10, b

=*Epuraea (Epuraea) cerina* Grouvelle, 1894b: 579 (India, West Bengal); *Epuraea (Epuraea) subochracea* Grouvelle, 1903a: 111 (India, Darjeeling), new synonym; Grouvelle, 1908: 352; Grouvelle, 1913a: 124; *Epuraea (Micrurula) cerina*: Grouvelle, 1908: 352, 355; Grouvelle, 1913a: 110; *Epuraea (Micrurula) transversicollis* Jelinek, 1978: 173, 198 (Bhutan), new synonym.

M a t e r i a l -
total 3, including lectotype (MNHN) and 1 paralectotype (MNHN) of *E. (M.) cerina*, and also lectotype (MNHN) *E. (M.) subochracea* -
India: **lectotype** *E. (M.) cerina*, male (MNHN), here designated and 1 **paralectotype**, male (MNHN) - „Kurseong, P. Braet", „*Epuraea cerina* ty. Grouv."; **lectotype** *E. (M.) subochracea*, male (MNHN), here designated - „Museum Paris, Darjeeling, Harmand, 1890".

Additional comments to d e s c r i p t i o n (Grouvelle, 1894 and 1903a): Length 2.9 [paralectotype *E. (M.) cerina*] - 3.0 [lectotype *E. (M.) subochracea*] - 3.2 [lectotype *E. (M.) cerina*], breadth 1.4-1.5 mm. This species has a characteristic pronotal shape with greatest width at base, very narrowly explanate sides, which almost gradually converge forwards, outline of labral lobes, strongly curved male mid tibiae and almost straight hind edge of hind femur. Moreover, dorsum with moderately dense, fine and not strongly conspicuous hairs, 1.5 times longer than distance between their insertions. Head and pronotal surface with more or less distinct punctures, as large as eye facets, interspaces between them less than a puncture diameter, smoothly and finely microreticulated. Elytral surface in comparison with head and pronotal one, with somewhat larger indistinct and shallower punctures, interspaces between them finely and densely microreticulated. Distance between mid coxae subequal and that between hind ones 1.5 times as broad as distance between fore coxae.

D i a g n o s i s: This species belongs without doubt to a group of species closely related to *E. (Micruria) commutata* Grouvelle, 1912/

1913 [including also *E. (M.) curvipes* Hisamatsu, 1961 and *E. (M.) wittmeri*]. Features of the studied lectotypes coincide fairly well with the description of *E. (M.) transversicollis* from Bhutan (Jelinek, 1978), therefore the last species name is omitted in the present list but also transferred into synonymy. It needs to notice that the original description of *E. (M.) cerina* allows differences of interpretation and introduce an uncertainty when used to identify some forms (Kirejtshuk, 1987a: 67). Nevertheless, pronotal shape in combination with rather long elytra of this species are fairly well characteristic for a diagnosis of it among its congeners.

B i o n o m y: No data on bionomy of this species are known, although the imagines of it have been collected in spring (April). Probably this species lives as many other representatives of the subgenus in forest, being connected with damaged trees and bushes or visiting flowers (or the larvae develop there).

D i s t r i b u t i o n: This species is recorded from India [West Bengal, Kurseong: type locality of *E. (M.) cerina*, including Darjeeling: type locality of *E. (M.) subochracea*] and Bhutan [Thimbu: type locality of *E. (M.) transversicollis*].

Epuraea (Micruria) consanguinea Grouvelle, 1914

Figs. 319-324

=*Epuraea (Micrurula) consanguinea* Grouvelle, 1914b: 41 (Taiwan).

M a t e r i a l -
Taiwan (China): **lectotype**, male (DEI), here designated - „Kosempo, H. Sauter, 1912", „22.V", „Grouvelle det.", „syntypus"; 1 **paralectotype**, female (DEI) - „Sokutsu, Banshoryo Distr., H. Sauter", „22.VI", „Grouvelle det."; 1 **paralectotype** (NRS) - „Shis A 5 6, Formosa, H. Sauter, V-VI.1912", „*consanguinea* Grouv."; 1 (BMNH) - „Chusan Is., J.J.W." (? Walker).

Addition to d e s c r i p t i o n: Length 2.1-2.3 mm. Moderately con-

vex dorsally and ventrally; brownish reddish, antennae and legs lighter to completely dark brownish body with slightly lighter appendages; nearly dull; dorsum with moderately conspicuous, recumbent silk greyish hairs, nearly 3 times as long as distance between their insertions. The specimen from Chushan Island has light chestnut brown general coloration, elytra with epipleura entirely straw reddish as well as ventral side of head, prosternum and legs, and pubescence somewhat shorter and less conspicuous. Head and pronotal surface with distinct punctures, as large as eye facets, interspaces between them with very distinct cellular microreticulation. Elytral surface with less distinct punctures, interspaces between them with smooth microreticulation. Ventral surface with more distinct, smaller and sparser punctures. Head scarcely longer than distance between comparatively large eyes. Pronotal and elytral sides strongly narrowly explanate, pronotal base with a visible border at hind corners, elytral apices transversely truncate. Antennal grooves undeveloped. Fore tibiae triangular and lacking a projecting subapical process or tooth. Fore and mid tibiae as wide as antennal club, but hind ones significantly narrower. Fore and mid femora twice, hind almost 3 times as wide as corresponding tibiae. Fore tarsi 2/3 as wide as fore tibiae, claws with a small tooth at base.

Diagnosis: This species is similar to *E. (M.) bullata* new species, *E. (M.) himalayaensis* new species, *E. (M.) specialis* new species and *E. (M.) subtilis*, differing from:

- *E. (M.) bullata* new species in the characters given in the above key;
- *E. (M.) himalayaensis* new species in characters of coloration, normally shaped labrum, undeveloped sinuations at hind corners of pronotal base and truncate elytra;
- *E. (M.) specialis* new species in more robust body, peculiarities of coloration, less conspicuous pubescence, shorter elytra, shallow emargination of hind edge of metasternum between coxae, less developed subapical tooth of fore tibiae [although this process in the specimen of *E. (M.) consanguinea* from Chushan nearly as developed as that in the holotype of *E. (M.) specialis* new species] and more raised tooth at base of tarsal claws;
- *E. (M.) subtilis* in larger body size, undeveloped sinuations at hind corners of pronotal base and pronotal sides less narrowed forwards.

Bionomy: The imagines of this species have been collected in May and June.

Distribution: This species is yet known only from Taiwan (type locality: „Kosempo").

Epuraea (Micruria) consobrina Grouvelle, 1892, **new combination**

Figs. 325-333; Map 10, c

=*Epuraea (Epuraea) consobrina* Grouvelle, 1892a: 840 (Burma); Grouvelle, 1913a: 110; *Epuraea (Epuraea) emarginata* Grouvelle, 1906a: 316 (Burma), new synonym; Grouvelle, 1913a: 113.

Material -
total 7, including lectotype (MSNG) and 1 paralectotype (MSNG) *E. (M.) consobrina*, holotype (MSNG) *E. (M.) emarginata*, paralectotype (MSNG) *E. (E.) birmanica* -
Myanmar (Burma): **lectotype** *E. (M.) consobrina*, female (MSNG), here designated and 1 **paralectotype**, female (MSNG) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88", „*Ep. consobrinus* Typus ! Grouv."; **holotype** *E. (M.) emarginata*, male (MSNG) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88", „*Epuraea emarginata* Grouv." (written by A. Grouvelle); 1 **paralectotype** *E. (E.) birmanica*, female (MSNG) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88"; 1 female (MSNG) - „Bhamó, Birmania, Fea, VII.1886", „varieté *birmanica*"; 2 females (MMUE, ZISP) - „Shan State, Wetwun, 28.I.82, G. de Rougemont".

Redescription of holotype *E. (M.) emarginata* (male): Length 4.0, breadth 1.9, height 0.9 mm. Bright reddish with darkened pronotal disc, lateral and apical parts of elytra; nearly dull; dorsal and ventral surfaces with subrecumbent, short and thin golden hairs, scarcely longer or shorter than one puncture diameter. Head and pronotal surface with oval, very shallow and hardly outlined punctures (in places slightly and very finely tuberculate), interspaces between them with a conspicuous, dense and fine cellular microreticulation. Elytral surface

with obsolete punctation, but with a very fine, dense and conspicuous cellular microreticulation. Surface of pygidium and preceding tergite uncovered by elytra, and ventral surface subequal to that on head and pronotum, but medial part of metasternum with distinct and moderately deep punctures as large as eye facets, interspaces between them about as broad as one puncture diameter, strongly smoothed or completely smooth. Head flattened, considerably shorter than distance between eyes, which consist of moderately small facets. Labrum moderately exposed before frons, mandibles moderately projecting before labral lobes. Antennae about as long as head breadth, their scapus as long as wide (twice shorter than antennal club and much larger than last segment of maxillary palpi) and their club composing a third of total antennal length. Mentum as in *E. (Epuraea) propingua*, but 3.0 times as wide as long. Antennal grooves moderately deep and with sharply outlined edges, almost straight and slightly convergent, almost reaching epicranial base. Pronotum with gently sloping sides to subexplanate lateral edges. Elytra with sides gently sloping to narrowly explanate lateral edges. Pygidium and preceding tergite clearly exposed from under elytral apices. From under truncate apex of pygidium triangular apex of anal sclerite is exposed. Wide lateral edges of hypopygidium very prominent from either side of pygidium (from above). Distance between mid coxae a little broader than twice and that between hind ones 3 times broader than distance between fore coxae. Prosternal process not strongly curved medially between coxae and strongly widened before carinate apex with a subacute hind edge. Mesosternum carinate. Metasternum slightly deepened with arcuately emarginate hind edge between coxae. Hypopygidium considerably shorter than ventrite 1 (nearly 1.5 times), with truncate apex. Epipleura wider than antennal club (almost as wide as antennal club long or less than twice as wide as scapus). Tibiae strong with convex inner edge before apex: fore and hind ones subtriangular and slightly narrower than antennal club, with unprojecting subapical outer corner; mid ones with large and angular dilatation before apex. Femora moderately wide: fore ones 1.5 times and hind ones twice as wide as corresponding tibiae; fore femora with straight fore and evenly convex hind edges. Fore tarsi twice narrower than corresponding tibiae, but mid and hind tarsi somewhat narrower than fore ones; claws thin and long, slightly curved and slightly bulbous at base, 2.5 times

shorter than tarsomere 5, and a well developed empodium visible between claws. Aedeagus moderately sclerotized.

F e m a l e [including types of *E. (M.) consobrina*]: Length 3.2-3.8, breadth 1.5-2.0 mm. All females of the type series unicoloured straw reddish, but two other ones collected by G. de Rougemont (MMUE, ZISP) coloured as the lectotype of *E emarginata*. Largest specimens have more projecting and more sharply acute elytral apices, although in smaller specimens these apices become even less acute than those in male [nearly as acute as those in *E. (E.) propingua*]. All tibiae subtriangular and with a weakly convex inner edge. All femora with evenly rounded fore and hind edges. Some females with distinct punctation not only on middle of metasternum but also on ventrites, interspaces between them smooth or smoothly microreticulated. Ovipositor weakly sclerotized.

D i a g n o s i s: This species belongs to a group of species which includes not only the indo-malayan species mentioned below but also the palaearctic *E. (M.) bergeri* and *E. (M.) subita* Kirejtshuk, 1992, from which it differs, apart from structural specific characters in genitalia, in significantly less and evenly convex body, coloration, sparser and less distinct punctation of dorsum, shorter sparser and less conspicuous pubescence, characters of elytral apices and sexual characters of legs. Together with the mentioned palaearctic species *E. (M.) consobrina* can be united with some indo-malayan ones listed below in a group of possible relatives, the oldest name among which was published for the species here considered (*consobrina*-group). Apart from these species, this group includes some unpublished ones from different parts of island systems in the Indo-Malayan region.

This species is most similar and, perhaps, closely related to *E. (M.) subreticulata* Grouvelle, 1897, new combination [**lectotype** *E. (M.) subreticulata*, female (CMG), here designated - „Sumatra, Si-Rambé, XII.90-III.91, E. Modigliani" and 1 **paralectotype**, female (MCG) - „Sumatra, Balighe, X.90-III.91, E. Modigliani"] [?= *E. (M.) sjoebergi* Kirejtshuk, 1984, new combination]. However, conspecific relations between *E. (M.) subreticulata* and *E. (M.) sjoebergi* are not so evident

because males of these forms can have marked differences allowing us to recognize them as separate species. Nevertheless *E. (M.) consorbina* differs from *E. (M.) subreticulata* [?=*E. (M.) sjoebergi*] mainly in secondary sexual characters of elytra and legs, and also male genital structures. This species bears some resemblance to *E. (M.) kompantzevi* new species, *E. (M.) reticulata* and *E. (M.) scapha* new species, differing from them in obliquely truncate apex of last labial palpomere, secondary sexual characters in elytra (subacute elytral apices in both sexes) and legs, and also from:

- *E. (M.) kompantzevi* new species in darker coloration with blackish pigmentation and less shiny dorsum,
- *E. (M.) reticulata* in duller dorsal surface due to characters of sculpture, sparser shorter and less conspicuous pubescence;
- *E. (M.) scapha* new species in much darker coloration with blackish pigmentation, nearly dull dorsum, sparser shorter and less conspicuous pubescence.

Bionomy: The imagines of this species have been collected at least in January and June, although it can be supposed that they are active within a longer period. Their appearance and relationship to the *consobrina*-group allow us to suppose also their anthophagous mode of life.

Distribution: This species is known only from Myanmar: Bhamo, Shan State (Wetwun) and Karen State („Carin Chebá": type locality of *E. (M.) consobrina* and *E. (M.) emarginala*).

Epuraea (Micruria) convexa Grouvelle, 1908

Figs. 334-339; Map 10, e

=*Epuraea (Micrurula) convexa* Grouvelle, 1908: 354, 355 (India, erroneously Darjeeling); Grouvelle, 1913a: 110; *Epuraea (Micrurula) affinis* Grouvelle, 1908: 352, 355 (India, Assam), non *Nitidula affinis* Stephens, 1830: 40; Grouvelle, 1913a: 121; *Epuraea (Micrurula) persimilis* Grouvelle, 1913e: 253, new synonym; Grouvelle, 1913a: 121; *Epuraea (Micrurula) hisamatsui* Jelínek, 1978: 173, 193 (Bhutan), new

synonym, non *Epuraea (Epuraea) hisamatsui* Nakane, 1966: 66; Kirejtshuk, 1987a: 71 (also Pakistan, Punjab); *Epuraea (Micrurula) lisa* (partim): Kirejtshuk, 1987a: 70 (India, Uttar Pradesh).

Material -

total 271, including lectotype (MNHN) *E. (M.) convexa*, 4 syntypes (DEI) *E. (M.) affinis* -

Pakistan: 7 (NMW, ZISP) - „NWF Prov., Changla Gali, N of Murree, 27 Sept. 1976, G.F. Hevel & R.E. Dietz"; 1 (BMNH) - „Hazara, N.W.F.Prov., Thandiani, 7-9000 ft, 18.v.1927", „H.G. Champion Coll."; 19 (BMNH, ZISP, ZML) - „Punjab, Murree Hills, Camp Thobba, H. Roberts"; 2 (BMNH) - „Kadrala, Bashahr, Punjab, 9000 ft, H.G.C.", „H.G. Champion";

India: **lectotype** *E. (M.) convexa*, male (MNHN), here designated - „Sikkim, Regenzeit, H. Fruhstorfer", „*Epuraea convexa* ty. Grouv." (written by A. Grouvelle); 4 **syntypes** *E. (M.) affinis* (DEI) - „Khesis"; 6 (SMNS, ZISP) - „Himachal Pradesh, Simla, Kufri, 16.7.1989, A. Riedel"; 52 (BMNH, ZISP) - „Nainital Dv, Kumaon, U.P., H.G.C.", „H.G. Champion"; 113 (BMNH, ZISP) - „Kumaon, W. Almora, H.G.C." (May.1917), „H.G. Champion"; 14 (BMNH) - „Kumaon, Almora, H.G.C.", „H.G. Champion"; 1 (BMNH) - „Dudhatoli, 8-10000 ft, Kumaon, H.G.C.", „H.G. Champion"; 7 (BMNH, ZISP) - „U.P., Chakrata Div., Bodyar, 8000 ft, V.1928, H.G. Champion"; 4 (BMNH, ZISP) - „U.P., Chakrata Div., Jaunsar, 31.V.1929, H.G. Champion"; 2 (BMNH) - „Huttoo, Simla Hills, 10000 ft, H.G.C.", „H.G. Champion"; 2 (BMNH) - „Nandhaur R., Haldwani Div., H.G.C.", „H.G. Champion"; 6 (BMNH) - „Sunderdhunga V., 8-12000 ft, W. Almora, H.G.C.", „H.G. Champion"; 1 (ZSM) - „Naini Tal, 1932 m, VII.1961, G. Scherer"; 1 (BPBM) - „Darjeeling-Tiger Hill, 2250 m, VIII-30-1956, J.L. Gressitt";

Nepal: 1 (NMB) - „Landrung, 1600-2000 m, Gandrung, 8.V.1984", „W. Nepal, Modi Khola, Bhakta B."; 1 (NMB) - „W. Nepal, 1992, Banthanti, 2600 m, 8.VI, J. Moravec;1 (NMB)- „Gadawari, 1500 m, 17.V.1983", „C-Nepal, Kathmandu V.,M. Brancucci"; 9 (MHNG, ZIN) - „distr. Kathmandu: Phulcoki, 2500 m, 28-29.IV.84, Löbl-Smetana"; 1 (MHNG) - „Lalitpur Distr., Phulcoki, 2550 m, 15.X.83, Smetana & Löbl"; 1 (MHNG) - „(Prov. Bagmati), Tarke, Ghyang, 2650 m, 19.IV.81, Löbl & Smetana"; 1 (BMNH) - „8800', Kathmandu Distr., Phulkoki,

27-31.V.1983", „M.J.D. Brendell.", „low herbage, in open oak forest"; 1 (CNC) - „Ktmd, Sunderijal, 6-7500', Pastures 8.V.67, Can. Nepal Exp."; 4 (BMNH, ZISP) - „8800', Kathmandu Distr., Phulcoki, 27-31.V.1983", „low herbage in open oak forest", „M.J.D. Brendell"; 9 (MHNG, ZISP) - „distr. Kathmandu, Phulcoki, 2500 m, 28-29.IV.84, Löbl-Smetana"; 1 (SMNS) - „171 Parbat Distr., zw. Chitre u. Grandrung, 2500-2600 m, 6. 5. 1980, Martens & Ausobsky"; 1 (SMNS) - „227 Gorkha Distr., Buri Gandaki, Nyak bis unteres Chuling Khola Tal, Almen, *Pin. excelsa,* 2450-2870 m, 2 Aug. 83, Martens & Schawaller".

Addition to d e s c r i p t i o n (Grouvelle, 1908) of lectotype *E. (M.) convexa* (male): Length 2.4, breadth 1.4 mm. Somewhat more slender body than in most specimens of this species mentioned above, but not so much as that in studied syntypes of *E. (M.) affinis*, with narrower and more flattened pronotum; yellowish, with rather darkened head, pronotal disc, ventral surface of thoracic segments; dorsum with especially conspicuous (contrasting) hairs, 2.5 times as long as distance between their insertions. Head and pronotal surface with slightly deepened punctures much larger than eye facets, interspaces nearly a puncture diameter and cellularly microreticulated. Elytral surface with rather sparser and coarser punctures and intervals between them much more than one puncture diameter. Remaining characters partly similar to those in *E. (M.) klapperichi* new species, but aedeagus of lectotype membraneous, although with quite visible armature at base of penis trunk.

V a r i a t i o n s: Length 2.2-3.1 mm. This species is extremely variable in general shape of body: from configuration as in types of *E. (M.) affinis* to that in specimens of the european *E. (M.) melanocephala* (Marsham, 1802), manifesting wide variations in punctation and sculpture and length of elytra. Neverthless, all specimens of this species have rather uniform and simple legs with moderately wide fore tibiae bearing a small prominent subapical tooth (or two small ones), comparatively dense and coarse indistinct punctation, smooth and irregular microreticulation on interspaces of dorsum, particularly acute apices of penis trunk and lateral lobes of tegmen, as well as simple ovipositor.

D i a g n o s i s: This species is a member of the *melanocephala*-group well diagnosable according to the above key. It is important to note that *E. (M.) convexa* is characterized by very convex body, usually very dense punctation and contrasting golden pubescence on dorsum, weakly raised or almost undeveloped teeth at outer corner of fore tibiae, laking sexual dimorphism in structure of legs and especially acute or subacute apex of penis trunk with a peculiar armature of its inner sac located into the trunk (Figs. 336, 339). A more detailed comparison of this species with the most closely related indo-malayan representatives of the subgenus will be given in the diagnosis of *E. (M.) klapperichi* new species (see below).

N o t e s: This species is one of common representatives of the subfamily on the territory under consideration and shows a great extent of variability (see above).

The type locality of *E. (M.) convexa* was indicated by A. Grouvelle as Darjeeling and collector H. Fruhstorfer. Therefore the author supposes that the specimen here designated as lectotype was one of the series used for the first description of *E. (M.) convexa*, although the correct locality was missing in the text of the monograph with this description (Grouvelle, 1908).

The type specimens of *E. (M.) affinis* Grouvelle, non Stephens, paratypes of *E. (M.) lisa* from Uttar Pradesh and specimens from Himachal Pradesh mentioned above, are very similar. They must be regarded as conspecific and can be named as *E. (M.) persimilis*. At the same time other specimens from the type series of *E.(M.) lisa* from China are different from himalayan *E. (M.) persimilis* in more dense and more conspicuous pubescence on dorsum, shape of labral lobes, membraneous penis trunk with different armature of inner sac and some other features, which suggest specific level differences between himalayan and chinese forms. Regarding „*E. (M.) convexa*" (="*hisamatsui*" Jelinek, not Nakane), specimens completely identical with types are more robust and more convex in comparison with each other, but are rather variable in some external and genital structures. The author regards the latter as only a variety of the same species (in contrast to *E. (M.) lisa*).

Finally, there is one species which is very closely related to the considered one originating from Fujian - *E. (M.) klapperichi* new species. All these species can be diagnosed according to the above key and table proposed in the notes to the last mentioned species (see below).

B i o n o m y: This species is one of the commonest himalayan representatives of the subfamily, occuring at least within April-October in mountains at elevation between 1 500-3 500 m above sea level. According to the labels, the imagines inhabit low herbage in open oak forest, although its systematic attribution allows us to suppose some connections with flowers for imagines and even larval development on decaying flowers and/or fruits of trees and bushes.

D i s t r i b u t i o n: This species is a very common himalayan species of the subfamily, recorded from Pakistan, Punjab [Changla Gali and Camp Thobba (northern of Murree), Hazara, („Thandiani"), Kadrala (Bashahr)]; India, Himachal Pradesh [Simla („Kufri"], „Huttoo" (Simla Hills)], Uttar Pradesh [Dudhatoli, Naini Tal Division, Sunderdhunga valley and west of Almora (Kumaon), „Bodyar" and „Jaunsar" (Chakrata Division), Nandhaur Ridge (Haldwani Division)], Sikkim (? „Regenzeit": type locality of *E. (M.) convexa*), West Bengal (Darjeeling-Tiger Hill), Assam („Khesis": type locality of *E. (M.) affinis*); Nepal, Modi Khola („Bhakta B."), Gadawari (Kathmandu valley), Sunderijal (Kathmandu), Phulkoki (Kathmandu valley); Bhutan [„Kotoka-Gogona": type locality of *E. (M.) hisamatsui* Jelínek, not *E. (Epuraea) hisamatsui* Nakane, 1966].

Epuraea (Micruria) grouvellei Jelínek, 1978

Figs. 340-343; Map 2, d

=*Macroura pusilla* Grouvelle, 1894b: 585 (India, West Bengal), non *Nitidula pusilla* Illiger, 1798: 386; Grouvelle, 1907: 575; *Haptoncus pusillus*: Grouvelle, 1908: 344, 345; Grouvelle, 1913a: 98; Gillogly, 1982: 287; *Epuraea (Micrurula) grouvellei* Jelínek, 1978: 173, 197 (also Bhutan; syntypes from MNHN); *Haptoncus gangamorius* Gillogly, 1982: 284, 288 (Malaysia, Borneo; holotype and paratypes in BPBM),

new synonym; *Epuraea (Micruria) pusilla*: Hisamatsu, 1985: 181 (also Ryukyu, Taiwan, Indonesia, Borneo).

M a t e r i a l -
total 181, including 38 syntypes (IRNS) of *E. (M.) grouvellei* and 2 paratypes (BPBM) of *E. (M.) gangamoria* -
India: 38 **syntypes** *E. (M.) grouvellei* (IRNS) - „Kurgeon, P.Braet", „*Macroura pusilla* ty. Grouv."; 1 (TMB) - „W. Bengal, Darjeeling Distr., 3 km S of Ghum, Gy. Topál", „N 341, beaten material, 19.IV.1967"; 3 (ZSM, ZIN) - „Darjeeling, W.B., 2180 m, VI.1961, G. Scherer"; 2 (BPBM) - „Goom, 25 km SW of Darjeeling, 2100-2400 m, 24-28.IV.1966", „J. & M. Sedlacek."; 1 (NMB) - „Kalimpong, 720 m, Lower Janake, 2.IV.1984", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „7th mi. Kalimpong, 16.IV.1986, 900 m", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „Tashiding, Kalimp., 700 m, 20.IV.1987", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „Chandraloke, 2200 m (KPG), 23.IV.1986", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „Suntuk (KPG), 900 m, 14.V.1986", „Darjeeling D., Ch.J. Rai"; 6 (NMB, ZISP) - „Alghera, 2710 m, 23-27.IV.83", „Darjeeling D., Ch.J. Rai"; 1 (ZSM) - „Sikkim, Gangtok, 1768 m, VI.1961, G. Scherer"; 74 (TMB, ZISP) - „India or., Trichinopoly";
Nepal: 1 (SMNS) - „334, Taplejung Distr., Worebung Pass, degraded broad-leaved forest, 2000 m, 21 Apr. 1988, J. Martens & W. Schawaller"; 3 (SMNS, ZISP) - „351, Taplejung Distr., Yamputhin, cultural land, open forest, 1650-1800 m, 26 Apr. 1988, J. Martens & W. Schawaller"; 2 (NMW, ZISP) - „Kathmandu-Valley, Godavari, 1450-1750 m, 17-18 Mai 1990, Probst"; 1 (BMNH) - „8800', Kathmandu Distr., Phulcoki, 27-31.V.1983, M.J.D. Brendell, B.M. 1983-222", „fogging oak tree"; 4 (NMB) - „Godavari, 1500-1600 m, 1.VIII.1987", „Kathmandu V., Ch.J. Rai"; 7 (NMB, ZISP) - „Godavari, 1500 m, 17.V.1987", „Kathmandu V., M. Brancucci"; 15 (CNC, ZISP) - „Ktmd, Godavari, 5000', 19.VII.1967, Can. Nepal Exped." (20.VII); 2 (CNC) - „Ktmd, Godavari, 6000', 7-13 Aug.1967, Can. Nepal Exped.";
Bhutan: 1 (NMB) - „Phuntsholing, 300 m, 21.III-2.IV.83", „Bhutan, Ch.J. Rai";
Thailand: 1 (SMNS) - „10-13.1.1993,19.27N 98.20E, Soppong, 1550 m, Vit Kubán leg.";

Vietnam: 1 (ZISP) - „gory u (mountains at) Tam Dao, 900 m, 8.6.1962, O. Kabakov";
Malaysia: 2 (TMB, ZISP) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, 21.III-2.IV.1995, O. Merkl"; 1 **paratype** *Haptoncus gangamorius*, female (BPBM) - „North Borneo, Ranau, 22-25.II.1959", „T.C. Maa"; 1 (BMNH) - „Sabah: Tawai Plat. 1300 ft, 8 m S Telupid, 8.IX.1977", „At light", „M.E. Bacchus...";
Brunei: 1 **paratype** *Haptoncus gangamorius*, female (BPBM) - „British N. Borneo, Tenompok, 13.II.1959", „T.C. Maa";
Indonesia: 1 (ZISP) - „Tijbodos", „Java, Karavayev, 1898/9";
and also the specimens determined by Jelínek (1978) from Bhutan.

D i a g n o s i s: This species is similar to *E. (M.) latitarsis* new species, differing from it mainly in somewhat less convex and subquadrangular body, pronotum scarcely narrowed to base, subparallelsided elytra, a distinct carina on mesosternum, shape of male mid femur, much narrower male fore tibia and fore tarsi in each sex, and almost membraneous aedeagus. This pair of species have an isolated position due to the quite characteristic outline of pronotum and elytra, small unicoloured dark body with strongly contrasting and dull microreticulation on dorsum (in particular on pronotum - where it is almost rasp-like), a small but distinct tubercle in distal half of hind edge of mid male femur, strongly curved mid male tibia, slightly dilated hind male tibia before apex and genitalia. Although the dark coloration of *E. (M.) grouvellei* is reminiscent of *E. (M.) atra*, the species under consideration well differs from it in much more robust and more flattened body, pronotal shape with nearly truncate fore edge, unicoloured body (only appendages sometimes rather lighter), much less conspicuous pubescence, proportions of distances between mid and hind coxae, sexual characters in mid legs, and genital structures. A resemblance to *E. (M.) grouvellei* can be recognized in some other species of the subgenus, but (except sexual characters and genital structures) it differs from:
- *E. (M.) biplagiata* new species in unicoloured dark and less conspicuously pubescent body, pronotal shape with nearly truncate fore edge and greatest width at base, denser, shallower, less distinct and smaller punctation;
- *E. (M.) consanguinea* and *E. (M.) subtilis* in much more robust and flater body with darker coloration and less conspicuous pubescence, wider antennal club, pronotal shape with nearly truncate fore edge and greatest width at base, shallower and smaller punctation with significant difference in punctures on pronotum and elytra;
- *E. (M.) rotundula* new species in less stout legs with strongly toothed tarsal claws, shape of labrum, less distinct punctation and very contrasting microreticulation on dorsal sclerites as well as shape of antennal club.

N o t e s: The proposed synonymy of *E. (M.) grouvellei* and *E. (M.) gargamoria* new combination are quite evident because of a great similarity of the studied types of the both species as well as comparison with the description of the latter to be sure about conspecificity of its studied paratypes and holotype.

B i o n o m y: This species is widely distributed and not so common in the territory under consideration. It has been collected mostly in montain forest within February-June, in September, but in the Himalayas and North Indochina it was more frequently caught within April-June. The imagines of it occur at elevations of 300-1000 m, however, perhaps, they are more usual at elevation over 1500 m above sea level. This species probably live in different types of forest, brushwood and cultural plantations, however it seems to prefer broad-leaved forest, especially with oak trees. At least the imagines of this species are presumably connected with flowers and/or decaying fruits of trees and bushes.

D i s t r i b u t i o n: This species has a very wide range in the Indo-Malayan region, reaching eastern intermediate zone in China (Taiwan) and Pacific ocean (Japan, Ryukyu). It probably spreads throughout the territory under consideration. The studied museum specimens originated from India, Sikkim (Gangtok), West Bengal [Darjeeling District, Kurseong: type locality of *E. (M.) grouvellei* (=„*Macroura pusilla*"), Chandraloke, Suntuk, Alghera, Kalimpong and Goom (Ghum)]; Nepal, Taplejung District (Worebung Pass, Yamputhin), Kathmandu valley (Phulckoki, Godawari); Bhutan (Phuntsholing, Kamjee); Thailand (Soppong); Vietnam (Tam Dao); Malaysia, Malacca peninsula [Pahang,

Cameron Highlands, Tanah Rata), Borneo (Sabah, Ranau, Tawai Plateau, Tenompok: type locality of *E. (M.) gangamoria*); Indonesia, Java („Tijbodos").

Epuraea (Micruria) harmandi Grouvelle, 1902
Figs. 344-346

=*Epuraea (Epuraea) harmandi* Grouvelle, 1902: 16 (Japan); Grouvelle, 1913a: 115; Hayashi, 1978: 12, 33 (larva); *Epuraea melanocephala*: Sjöberg, 1939: 109 (partim - Siberia); *Epuraea (Micruria) harmandi*: Hisamatsu, 1985: 181; *Epuraea (Micrurula) harmandi*: Kirejtshuk, 1992: 125 (Amur region, Khabarovsky and Primorsky Krays, Sakhalin, Kuriles; Japan; Korean peninsula; China as far south as Sichuan and Fujian).

Material -
China: 2 females (MAK) - „Kuatun (2300 m) 27.40 n. Br. 117.49 ö L., J. Klapperich", „(I) 10.4.1938, Fukien", „*E. haemorrhoidalis* Rbm.";
Japan: **holotype**, male (MNHN) - „Museum Paris, Nippon, Moyen, env. de Tokio et alpes de Nikko, J. Harmand, 1901";
and more than 2000 specimens from the Russian Far East, Korea and Japan deposited in different collections.

Diagnosis: This species and *E. (M.) melanocephala* (Marsham, 1802) are rather similar to each other as well as to *E. (M.) convexa*, *E. (M.) klapperichi* new species and *E. (M.) lisa*, but the first two species are quite different from the other three species in scarcely emarginate hind edge of metasternum between coxae, characters of punctation and sculpture on dorsum, and less or scarcely prominent subapical tooth (teeth) of fore tibiae. The both vicariant palaearctic species have disjunct distributions: (*E. (M.) melanocephala* - mainly Mediterranean and Europe, as far ēast as Kemerovo region in West Siberia, but *E. (M.) harmandi* - begining from west part of Amur region to the east up to the Pacific coast and insular systems near it) and some differences in coloration (east form frequently rather completely dark), character of punctation and sculpture (punctation of *E. (M.) harmandi* in comparison with *E. (M.) melanocephala* is coarser and sparser, but interspaces have somewhat dull and finer microreticulation). Therefore, the problem on specific or subspecific status of these forms remains insoluble at present.

Bionomy: This species is rather common during spring in different deciduous forests. It is quite usual in oak mountain forest. The imagines of this species occur under bark and in decaying leaf litter and usually visit different blossoming plants (Kirejtshuk, 1992), its larval development is recorded on decaying flowers of *Rhododendron* species (Hayashi, 1978).

Distribution: This species spreads mostly in the East Chinese (Palaearchearctic) Province, including the Russian Far East (Amur region, Khabarovsky and Primorsky Krays, Sakhalin, Kuriles); Japan (including Tokio and mountains at Nikko: Type locality); Korea; China as far south as Sichuan and Fujian („Kuatun" = Aotou).

Epuraea (Micruria) himalayaensis new species
Figs. 347-350; Map 10, d

Material -
Nepal: **holotype**, female (SMS) - „188, Kaski Distr., zw. Hyangja, Mahendra-Höhle u. Pokhara, 1000-1200 m, 11.V.1980, Martens u. Ausobsky".

Description of holotype (female): Length 3.0, breadth 1.4, height 0.7 mm. Moderately convex dorsally and ventrally; reddish with darkened fore part of head and labrum, pronotal disc, elytral apices and metasternum; head and pronotum moderately shiny, remaining surface of body with slight fat sheen; body with subrecumbent (or partly recumbent), moderately dense and conspicuous yellowish golden hairs, somewhat longer (up to 1.5 times) than distance between their insertions. Head surface with distinct and shallow oval punctures, not larger than eye facets, interspaces between them about one puncture diameter

and almost smooth (with a trace of microreticulation). Pronotal surface with little larger and sparser punctures than those on head, separated on the disc by more than one puncture diameter, interspaces between them with smooth cellular microreticulation. Elytral surface with scarcely visible and very shallow punctures, nearly as large and dense as those on pronotum, interspaces between them with conspicuous, fine and dense cellular microreticulation. Pygidial surface at basal half with small and rather sparse punctures separated by spaces with distinct cellular microreticulation, but before apex punctures become somewhat larger (up to as large as on other dorsal sclerites). Ventral surface somewhat similar to that on pygidium, but middle of prosternum with scarcely distinct punctation, on metasternum punctures much denser and interspaces with more or less developed or partly smooth microreticulation. Head scarcely shorter than distance between moderately raised eyes, with strong arcuate depression between antennal insertions; eyes composed of moderately small facets. Mandibles slightly exposed before hardly excised labrum. Antennal grooves scarcely distinct at sides of mentum. Last labial palpomere short, transverse with abrupt apex. Mentum trapezoidal, nearly 2.5 times as wide as long. Antennae somewhat shorter than head breadth, their club nearly 1/3 total antennal length. Pronotum moderately and evenly convex, with shallowly emarginate apex and almost subexplanate sides only at hind corners. Scutellum subtriangular with narrowly rounded apex. Elytra scarcely longer than combined width; sides steeply (subvertically) sloping to unexplanate edges, with very widely rounded and oblique apices, forming a blunt sutural angle. Pygidium entirely exposed from under elytra and with flattened, somewhat projecting and bluntly acute apex. Prosternal process strongly curved along coxae, its transversely expanded apex approaching the rather excavate surface of mesosternum. Distance between fore coxae 1.5 times less and that between hind ones nearly 2.0 times more than that between mid coxae. Mesosternum without any developed medial carina. Metasternum flattened and with a raised medial suture in distal half before its hind edge which is angularly and not deeply excised between coxae. 1st ventrite as long as ventrites 2-4 combined and shorter than hypopygidium with widely rounded apex. Epipleura slightly wider than antennal club. Legs moderately developed. All tibiae narrow, fore one as wide as antennal club, with scarcely prominent subapical tooth; mid and hind ones considerably narrower than antennal club, with raised spines only along their apices and a greater subapical spine, but their outer edge with rows of normal setae. Femora with gently outlined fore and hind edges, greatest width near middle, fore and mid femora nearly 2.0 times, but hind one about 2.5 times wider than corresponding tibiae. Fore tarsi nearly as wide as corresponding tibiae, mid and hind ones much narrower; claws slightly toothed at base. Ovipositor slightly sclerotized.

Diagnosis: *Epuraea (Micruria) himalayensis* new species resembles the palaearctic *E. (M.) mandibularis* and *E. (M.) punctata* Kirejtshuk, 1992 and this new species is partly similar to *E. (M.) subtilis*. The present new species differs from all mentioned ones in the oblique elytral apices (not characteristic for all members of the subgenus, except *consobrina*-group), configuration of labrum, subexplanate pronotal sides, features of punctation and elytral sculpture. Moreover, *E. (M.) himalayensis* new species is distinct from *E. (M.) mandibularis* in smaller body with light coloration, pronotum narrowed to slightly emarginate fore edge and different pubescence, and from both other species in shape of pronotum and elytra. At the same time, this new species looks partly like those of *melanocephala*-group [see notes to *E. (M.) klapperichi* new species], but it is well distinguished from them by the same characters (as in case of *mandibularis*-group). This new species partly resembles at least by labrum and elytral apices *E. (M.) vulpina* new species, but is very different by its smaller body with characters of pronotun, elytra, punctation and absence of antennal ridges on ventral surface of head. Additionally, *E. (M.) himalayaensis* new species is more or less similar to *E. (M.) specialis* new species differing from it in larger and less convex body, characters of coloration and sculpture on dorsum, scarcely emarginate fore edge of labrum, narrower and more elongate antennal club, oblique elytral apices, flattened and somewhat projecting pygidial apex of female. Finally, *E. (M.) himalayaensis* new species can be easily diagnosed from species of the *consobrina*-group according to the characters in the above key and particularly due to the more slender and convex body, unexcised labrum and uncarinate prosternal apex.

Bionomy: The holotype of this species has been collected at elevations between 1000-1200 m above sea level in May, probably in mountain forest.

Distribution: This species is known only from the type locality: Nepal, Kaski District.

Etymology: The Latin name of this new species if formed from the Himalayas.

Epuraea (Micruria) indochinensis Kirejtshuk, 1990

Figs. 357, 358; Map 1, c

=*Epuraea (Micrurula) indochinensis* Kirejtshuk, 1990a: 63 (North Vietnam).

Material -
total 14, including holotype (ZISP - Kirejtshuk, 1990a) and 12 paratypes (NRS, URC, ZISP - Kirejtshuk, 1990a) -
Vietnam: 1 (ZISP) - „Vietnam, 400 m, Son Duong, khr. Tam Dao, 24.II.1962, O. Kabakov".

Diagnosis: This species has some relatives with somewhat similar appearance to it [*mandibularis*-group - see diagnosis of *E. (M.) calcarifera* new species], although it is well characterized by the rather convex and strongly vaulted dorsum, subquadrangular pronotum, and comparatively wide tibiae with a raised subapical tooth on fore ones (see the above key).

Bionomy: This species has been collected from blossoming bushes in mountain forest at low elevation above sea level, in February and March.

Distribution: This species is known only from Vietnam: Thai Nguyên (type locality) and So'n Du'o'ng.

Epuraea (Micruria) insolita Grouvelle, 1908

Figs. 351-356; Map 11, a

=*Epuraea (Micrurula) insolita* Grouvelle, 1908: 353, 355 (India, Assam); Grouvelle, 1913a: 116.

Material -
total 29, including 4 syntypes (DEI) -
Pakistan: 1 (BMNH) - „Parbatti V., Kulu, Punjab, 6-8,000 ft, H.G.C.", „H.G. Champion"; 5 (BMNH) - „Kadrala, Bashahr, Punjab, 9000 ft, H.G.C.", „H.G. Champion";
India: 4 **syntypes** (DEI) - „Khesis"; 8 (BMNH, ZISP) - „U.P., Chakrata Divn., Jaunsar, 31.V-1.VII-1929, H.G. Champion"; 7 (BMNH) - ibid. „Bodyar, 7000 ft, V.1928, H.G. Champion"; 4 (BMNH) - ibid. „7-9000 ft, V.1928, H.G. Champion";
Myanmar (Burma): 1 (NRS) - „N.E.Burma, Kambaiti, 7000 ft, 8/4/1934, R.Malaise".

Diagnosis: This species seems to belong to the group of species closely related to *E. (M.) auripubens* Reitter, 1901, *E. (M.) tschistykovae* Kirejtshuk, 1987a and *E. (M.) vulpina* new species (see diagnosis of the latter). Although the dorsal pubescence of this species is rather long and strongly conspicuous, more or less greyish, but it is never yellowish gold. Additionally, the species is fairly well characterized by the very long tarsal claws with a very strong and sharp tooth at base.

Bionomy: This species has been collected in April and May (or to June) at elevations over 2000 m above sea level, probably in mountain forest.

Distribution: This species is known from Pakistan, Punjab (Parbatti Valley, „Kulu" and „Kadrala, Bashahr"); India, Uttar Pradesh (Chakrata Division, Jaunsar and Bodyar), Assam („Khesis" - type locality); Myanmar (Burma), Kachin State (Kambaiti).

Epuraea (Micruria) klapperichi new species

Figs. 359-365

Material -
total 94, holotype (MAK) and 93 paratypes (MAK, ZISP) -
China: **holotype**, male (MAK) and 93 **paratypes** (MAK, ZISP) - „Kuatun (2300m), 27.40 n.Br. 117.40 ö.L., J. Klapperich, 1.4-30.5.1938 (Fukien)" (holotype - „2.4.1938"). This form was named in the collections as a distinct species but never published by O. Rebmann.

Description of holotype (male): Length 2.4, breadth 1.3, height 0.7 mm. Rather convex, light brownish with head, pronotum and metasternum partly darkened; somewhat shiny; dorsum with dense and comparatively long, but not very conspicuous yellowish golden hairs; ventral surface with shorter and much less conspicuous pubescence. Head surface with punctures somewhat larger than eye facets, interspaces between them about 1/4 puncture diameter and with smooth microreticulation. Pronotal surface nearly as that on head, but with sparser punctures and distinct microreticulation at sides. Elytral surface as that on pronotal sides, but punctures sparser, separated scarcely by less than a puncture diameter. Fore tibia significantly curved along outer edge and with a comparatively weak subapical process. Aedeagus moderately sclerotized.

Female: Mid tibiae less curved in comparison to those of the males. Fore tarsi about 2/3 as wide as fore fibiae. Pygidial apex bluntly subacute and hypopygidial one widely rounded. Ovipositor not heavily sclerotized.

Variations: Length 2.1-2.8 mm. The subapical process of fore tibia in many paratypes is very prominent. Coloration and punctation vary nearly in the same scope as those in the palaearctic *E. (M.) melanocephala* (Marsham, 1802) and *E. (M.) harmandi*, but very dark specimens are absent in the type series of this new species.

Diagnosis: *Epuraea (Micruria) klapperichi* new species has almost no character of sexual dimorphism in mid male tibiae and, therefore,

seems to be more similar to *E. (M.) convexa*, *E. (M.) harmandi* and *E. (M.) lisa* than other members of the subgenus, although it is larger, somewhat more robust and more brightly reddish; dorsum with sparser, more or less uniform and more regular punctation, less conspicuous pubescence, particularly characteristic shape of fore tibiae and comparatively stout form of other tibiae. The considered species belongs to a group of presumably closely related forms and is distinguishable according to the following characters:

- *E. (M.) klapperichi* new species:

1. Body larger (2.1-2.8 mm), more robust and moderately convex, somewhat arcuate sides of elytra and dorsum moderately densely covered with moderately conspicuous yellowish golden hairs, a little more than 1.5 times as long as distance between their insertions;
2. front outline of labrum looks like two regularly semicircular or slightly subtruncate lobes;
3. pronotum with fore edge trapezoidally excised, with extremely widely rounded hind corners;
4. hind edge of metasternum distinctly angularly excised between coxae;
5. fore tibia with a sharply angularly curved outer edge and a weakly projecting subapical tooth;
6. hind femur more than twice as wide as antennal club;
7. punctures on dorsum distinct and markedly larger than eye facets, interspaces between them about one puncture diameter, smoothly and densely cellularly microreticulated;
8. aedeagus moderately sclerotized, with an acute apex to the penis trunk, armature in proximal part of penis trunk composed of two stripes, consisting of small oval pigmented discs, symmetrically disposed along medial line;
9. female pygidium subtriangular, with bluntly subacute apex.

- *E. (M.) harmandi*:

1. Body larger (1.9-3.0 mm), moderately robust (less in the preceding species) and moderately convex, with more or less parallelsided elytra, dorsum moderately densely covered with slightly conspicuous greyish or yellowish golden hairs, less than 1.5 times as long as distance between their insertions;
2. front outline of labrum as in *E. (M.) klapperichi* new species;

3. pronotum with fore edge shallowly arcuately emarginate and narrowly rounded hind corners;
4. hind edge of metasternum shallowly arcuately emarginate between coxae;
5. fore tibia subtriangular and with a scarcely projecting subapical tooth;
6. hind femur significantly less than twice as wide as antennal club;
7. punctation and sculpture on dorsum as in *E. (M.) klapperichi* new species;
8. aedeagus moderately sclerotized, with subacute apex to penis trunk, armature in proximal part of penis trunk composed of two pigmented stripes, undivided into smaller areas, symmetrically disposed along medial line;
9. pygidium with very widely rounded apex.

- *E. (M.) convexa*:

1. Body larger (2.1-3.1 mm), moderately robust (*E. (M.) convexa* „var. *convexa*“) or rather slender (*E. (M.) convexa* „var. *persimilis*“) and strongly convex, with slightly curved or almost parallelside elytra, dorsum moderately densely („var. *convexa*“) or very densely („var *persimilis*.“) covered with rather conspicuous yellowish golden hairs, about 2.5 times („var. *convexa*“) as long as distance between their insertions or more („var. *persimilis*“);
2. front outline of labrum widely („var. *convexa*“) or narrowly („var. *persimilis*“) semicircular;
3. fore edge of pronotum subtruncate („var. *convexa*“) or scarcely emarginate (usually in „var. *persimilis*“), its hind corners as in *E. (M.) harmandi*;
4. hind edge of metasternum between coxae as in *E. (M.) klapperichi* new species;
5. fore tibia subtriangular and with a slightly or moderately projecting subapical tooth - mostly in „var. *persimilis*“ (or two teeth - mostly in „var. *convexa*“);
6. hind femur about twice, or slightly more times as wide as antennal club;
7. punctures on dorsum very dense and not quite distinct, only slightly larger or subequal to eye facets, interspaces between them very narrow (usually narrower than half a puncture diameter up to contiguity between them), rather smoothly microreticulated;
8. aedeagus moderately sclerotized, with more or less distinctly acute apex to penis trunk, armature in proximal part of penis trunk composed of two stripes of pigmented plates, symmetrically disposed along medial line;
9. female pygidium as in *E. (M.) klapperichi* new species.

- *E. (M.) lisa*:

1. Body smaller (1.8-2.5 mm), not robust and slightly convex, with more parallelsided elytra, dorsum rather densely covered with moderately conspicuous yellowish golden hairs, about 2.5 times as long as distance between their insertions;
2. front outline of labrum subtruncate, with moderately deep medial excision;
3. pronotum as in *E. (M.) harmandi*;
4. hind edge of metasternum between coxae as in *E. (M.) harmandi*;
5. fore tibia subtriangular and with a moderately or rather well projecting and very sharp subapical tooth;
6. hind femur about twice as wide as antennal club;
7. punctures and interspaces between them on dorsum almost as in *E. (M.) convexa*, although punctures on elytra frequently smaller and shallower, but interspaces between cellularly microreticulated;
8. aedeagus membraneous, penis trunk scarcely narrowed before blunt or widely rounded apex, armature in proximal part of penis trunk composed of two pigmented stripes, undivided into smaller areas, symmetrically disposed along medial line;
9. female pygidium with slightly projecting and narrowly rounded or subacute apex.

B i o n o m y: The imagines of this species have been captured in May at elevations over 2000 m above sea level, probably in mountain forest. As other members of the *melanocephala*-group this species can be connected with deciduous forest (oak) and its imagines may visit flowers of trees and bushes.

D i s t r i b u t i o n: This species is known only from its type locality:

China, Fujian („Kuatun" = Aotou, see Map 5, e - *E. (E.) funeraria*).

Etymology: This new species is named in honour of an outstanding collector of Asian beetles.

Epuraea (Micruria) kompantzevi new species

Figs. 366-371; Map 11, b

Material -
total 11, including holotype (ZISP) and 10 paratypes (SMNS, TMB, ZISP) -
Vietnam: **holotype**, male (ZISP) and 1 **paratype** (ZISP) - „105 km NW Thanh Hoa, 6 km SW Lang Chàng, 23-25.I.1989, Korotyaev, les u ruchya (forest at brook)"; other **paratypes**: 3 (SMNS, ZISP) - „gory (mountains) 50 km NO Thai Nguyên, tzvetutschiye kustarniki (blossoming bushes), 2.03.1963, O. Kabakov"; 2 (ZISP) - „Mai Chou, prov. Ha Son Binh, 31.10-4.11.1990, Belokobylskij"; 1 (ZISP) - „gory u Tam Dao, 900 m, 8. 6. 1983, O. Kabakov"; 1 (ZISP) - „20 km N Buonloa (Prov. Gia-Lai-Công Tum), 20-24.4.1995, A. Gorokhov"; 1 (ZISP) - „Buonloi (prov. Gia-Lai-Công Tum), 20.10.1973, A. Kompantzev"; 2 (TMB, ZISP) - „Cuc Phuong, Ninh binh, 3-10.V.1966, Exp. Gy. Topál", „N 268, beaten from bushes near creek".

Description of holotype (male): Length 2.5, breadth 1.3, height 0.5 mm. Moderately and evenly convex dorsally and weakly ventrally; bright reddish, with darkened lateral apical parts of elytra; rather shiny; dorsum with sparse, but very conspicuous hairs, 1.5-2.0 times as long as distance between their insertions; underside with shorter and less conspicuous hairs. Dorsal surface (except pygidium) with very shallow and indistinct punctures, somewhat larger than eye facets, interspaces between them broader more than one puncture diameter, very smoothly microreticulated. Surface of pygidium with distinct punctures as large as eye facets, separated by one puncture diameter and with microreticulated interspaces. Ventral surface with reduced and shallow punctation, smoothly microreticulated on interspaces and completely smooth in middle of metasternum and 1st ventrite. Prosternal process

slightly curved along coxae, strongly widened before carinate apex with subangular hind edge. Elytral apices forming a joint curve. All tibiae simple and narrow. Mid and hind femora somewhat, but gently widened at hind edge in distal half, 3 times as wide as corresponding tibiae. Fore tarsi almost as wide as corresponding tibiae. Aedeagus weakly sclerotized.

Female: Externally differs from male in more projecting elytral apices, rounded apex of pygidium and very narrower fore tarsi (almost half as wide as corresponding tibiae). Ovipositor weakly sclerotized.

Variations: Length 2.4-3.9 mm. Some variability is present in coloration, sculpture and development of secondary sexual characters.

Diagnosis: This new species belongs to the *consobrina*-group (see notes to *E. (M.) consobrina*) and can be diagnosed by characters of shape of elytral apices and secondary sexual dimorphism in male legs. Moreover, *E. (M.) kompantzevi* new species (except genital structures) differs from:
- *E. (M.) bergeri* in more evenly convex body with sparser punctation, shorter and less conspicuous pubescence of dorsum, and particularly in strongly widened apex of prosternal process;
- *E. (M.) consobrina* in coloration;
- *E. (M.) reticulata* and *E. (M.) scapha* new species in little more evenly convex body;
- *E. (M.) subreticulata* Grouvelle, 1897 in smaller, evenly convex and more robust body.

Notes: Among the studied specimens is 1 male (NRS - „N.E. Burma, Kambaiti, 7000 ft, 12/5.1934, R. Malaise") with rather small, very dark and unicoloured body, subexplanate pronotal sides and looking like *E. (Epuraea) contraria* new species, but with subacute penis trunk and tegmen as that in the *consobrina*-group). This specimen most likely belongs to *E. (M.) reticulata* or *E. (M.) kompantzevi* new species.

Bionomy: The imagines of this species have been captured in January, within March-May, within October-November, probably in

mountain forest.This species seems to be an usual visitor on blossoming trees and bushes.

Distribution: This species is known only from Indochina: Vietnam, Lang Chang (near Than Ho'a: type locality), Thai Nguyên, Mai Chou (province Ha Son Binh), Buonloa (Province Gia-Lai-Công Tum), Cuc Phuong (Ninh binh). It can be expected a confirmation of this species in Myanmar (Burma) (Kachin State, Kambaiti - see notes above).

Etymology: This new species is named in honour of A.V. Kompantzev, who collected a lot of interesting beetles in Rajastan, Vietnam and Russian Far East.

Epuraea (Micruria) latitarsis new species

Figs. 372-389, 624-626; Map 1, d

Material -
total 2, including holotype (TBM) and 1 paratype (ZISP) -
Vietnam: **holotype**, male (TMB) - „Cuc phuong, Nihn bihn, 11-17.V.1966, Exp. Gy. Topál", „N 348, beaten from blossoming *Dracena*";
Malaysia: **1 paratype**, female (ZISP) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29.III.1995, O. Merkl & I. Szikossy".

Description of holotype (male): Length 2.2, breadth 1.2, height 0.7 mm. Rather convex dorsally and ventrally; brown, but mouth parts, antennae, legs and abdomen reddish; dull; dorsum with brownish golden, slightly conspicuous fine and dense hairs, about twice as long as distance between their insertions. Aedeagus moderately sclerotized.

Female: Length 2.6 mm. Dorsum dark reddish brown with lighter elytra and reddish exposed tergites; ventral surface reddish, except dark brown meso- and metasternum; appendages, including antennal club reddish. Pronotum not so wide at base as in male. Fore tarsi and tibiae

a little wider than antennal club, although tibiae not so wide as in male. Ovipositor slightly sclerotized.

Diagnosis: This new species is extremely similar to *E. (M.) grouvellei*, but fairly well distinct from it by somewhat more oval and more convex body, pronotum with sides more narrowed to base, more curved elytral sides, gently convex mesosternum without a trace of medial carina, strongly dilated fore tibiae and tarsi of each sex and more heavily sclerotized aedeagus. Besides the studied specimes of the present new species are rather lighter than the most specimens of *E. (M.) grouvellei* and with light antennal clubs.

Bionomy: This species has been captured in mountain forest in March and May. It seems to be associated with blossoming trees and/or bushes (at least blossoming *Dracena*).

Distribution: This species is known only from Indochina: Vietnam, Cuc Phuong (Nihn bihn: type locality) and Malaysia, Pahang (Cameron Highlands, Tanah Rata).

Etymology: The Latin name of this new species is formed from „latus" (wide) and „tarsus" (paw).

Epuraea (Micruria) lisa Kirejtshuk, 1987

Figs. 380-383; Map 11, c

=*Epuraea (Micrurula) lisa* Kirejtshuk, 1987a: 70 (China, Sichuan; India, Uttar Pradesh; holotype and 27 paratypes - ZISP; 2 paratypes - BMNH, 1 paratype - SMNS, 1 paratype - FMNH; 1 paratype - ZMUC). Erroneous indication: Kirejtshuk, 1987a: 70 (India, Uttar Pradesh).

Material -
total 33; including holotype (ZISP) and 32 paratypes (BMNH, FMNH, SMNS, ZISP, ZMUC) -
China: 1 (MAK) - „Kuatun (2300 m), 27.40N.Br., 117.40öL., J. Klap-

perich, 8.4.1938, Fukien", „*nitidula* sp.n., det. Dr. Rebmann" (unpublished name).

D i a g n o s i s: This species is well redefined and diagnozed in the diagnosis to *E. (M.) klapperichi* new species (see above). It is characterized the complex of the characters mentioned above; it has comparatively slender body; very dense punctation; strongly contrasting and dense golden hairs; membraneous aedeagus, with penis trunk scarcely narrowed before blunt or widely rounded apex, armature in proximal part of penis trunk composed of two pigmented stripes, undivided into smaller areas, symmetrically disposed along medial line.

B i o n o m y: This species has been collected in April, June and August at elevations over 2000 m above sea level, probably in mountain forest.

D i s t r i b u t i o n: This species is recorded only from China: Sichuan, near Kanding (Lixian and Moxian: type locality) and Fujian, „Kuatun" - Aotou.

Epuraea (Micruria) mandibularis Reitter, 1873

Figs. 384-388

=*Epuraea mandibularis* Reitter, 1873: 27, 38 (Japan); *Epuraea (Micrurula) mandibularis*: Reitter, 1884a: 261; Grouvelle, 1913a: 261; Kirejtshuk, 1992: 128 (Japan; Korea; China, Heilongjiang, Shaanxi); *Epuraea (Micruria) mandibularis*: Reitter, 1875a: 59; Nakane, 1984: 615; Hisamatsu, 1985: 181; Chûjô & Lee Chang, 1992: 20 (Korea and Taiwan). - Questionable reference: Chûjô & Lee Chang, 1992: 20 (Taiwan).

M a t e r i a l -
total 8, including lectotype (BMNH), 3 paralectotypes (MNHN, TMB) -
Japan: **lectotype**, male (BMNH), here designated and 1 **paralectotype** (TMB) - „Lewis, Japan, Hiotü, „*Micrurula mandibularis* m. Japan"

(probably written by E. Reitter); 2 **paralectotypes** (MNHN) - „*M. mandibularis* m. Japan" (probably written by E. Reitter); 2 (ZMB, ZISP) - „Japan, coll. Hiller", „*Epuraea mandibularis* det. Reitter"; 2 (ZMB) „Japan, coll. Hiller", „*Epuraea japonica* m.".

D i a g n o s i s: As a member of the *mandibularis*-group this species is more closely related to *E. (M.) calcarifera* new species and *E. (M.) indochinensis*, but is more slender and with markedly long elytra, differing from the both in the characters given in the above key. In contrast to the mentioned species *E. (M.) mandibularis* is also characterized by usually dark coloration of body, more subquadrangular pronotum and narrower fore tarsi in males.

N o t e s: This species was described from the beetles collected by G. Lewis mostly deposited in the Natural History Museum of London. Therefore it is advisable to take a specimen from there in order to design a lectotype among syntypes from different museums.

B i o n o m y: The imagines of this species have been captured in spring and early summer, probably they live in deciduous forest and may visit flowers of trees and bushes.

D i s t r i b u t i o n: This species is surely recorded only from the East Chinese province: Japan (including Kyoto: type locality); Korea; China, Heilongjiang, Shaanxi; being vicariant to the both related species mentioned in the diagnosis (see above).

Epuraea (Micruria) reticulata Grouvelle, 1892, **new combination**

Figs. 389-394; Map 12, a

=*Epuraea (Epuraea) reticulata* Grouvelle, 1892a: 841 [Myanmar (Burma)]; Grouvelle, 1913a: 122; *Epuraea (Micrurula) braeti* Grouvelle, 1894b: 578 (India, West Bengal), new synonym; Grouvelle, 1903a: 112 (India, Darjeeling); Grouvelle, 1908: 352, 355; Grouvelle, 1913a: 110; ? *Epuraea (Epuraea) ornata* Grouvelle, 1903a: 109 (India, Darjeeling),

non *Epuraea longula* var. *ornata* Reitter, 1872: 17, nec *Omosita ornata* Grouvelle, 1903a: 112; Grouvelle, 1913a: 113; ? *Epuraea (Epuraea) omissa* Grouvelle, 1908: 349, 352 (India, Assam; presumably types in MNHN); Grouvelle, 1913a: 120; *Epuraea (Epuraea) exculta* Grouvelle, 1912/1913: 394 (pro *Epuraea (Epuraea) ornata* Grouvelle, 1903a); Grouvelle, 1913a: 113; *Epuraea (Epuraea) braeti*: Jelínek, 1978: 173 (Bhutan); *Epuraea (Epuraea) parabraeti* Jelínek, 1978: 180 (Bhutan), new synonym; *Epuraea (Epuraea) confinis* Jelínek, 1978: 183 (Bhutan; holotype in NMB), new synonym.

Material -
total about 150, including lectotype (MHNG) and 1 paralectotype (MHNG) of *E. (M.) reticulata*; lectotype (IRSN) and 24 paralectotypes (IRSN) of *E. (M.) braeti*; ? holotype (MNHN) of *E. (M.) ornata* Grouvelle, 1903, non *Epuraea longula* var. *ornata* Reitter, 1872, nec *Omosita ornata* Grouvelle, 1903; holotype (NMB) of *E. (M.) confinis*; 2 paratypes (NMB) of *E. (M.) confinis* -
Pakistan: 1 (NMW) - „Punj. Prov., Barrins, near Murree, 27 September 1976, G.F. Hevel & R.E. Dietz"; 18 (BMNH, ZISP) - „Punjab, Murree Hills, Camp Thooba", „H. Roberts Coll. B.M. 1926-395"; 1 (BMNH) - „Dhelu, Mandi, Punjab, 4500 ft, H.G.C.", „H.G. Champion";
India: **lectotype** *E. (M.) braeti*, male (IRSN), here designated [designated in collection by J. Jelínek] and 24 **paralectotypes** (IRSN) - „Kurgeon, P. Braet", „*Epuraea braeti* ty. Grouv."; ? **holotype** *E. (M.) ornata*, female (MNHN) - „Darjeeling, Juni, Fruhstorfer, Museum Paris", „*Epuraea ornata* Grouv. c.-m ty."; 1 (TMB) - „Darjeeling Distr., Lopchu, Gy. Topál", „N 856, netted in grasses, 20.X.1967"; 3 (BMNH, ZISP) - „U.P., Chakrata Div., Bodyar, 8000 ft, V.1928, H.G. Champion"; 1 (BMNH) - „Bhatkot, Ranikhet, H.G.C.", „H.G. Champion"; 1 (NMB) - „Alchera 2720 m, 5.IV.1984", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - ibid. „Rinkingpong, 2000 (KPG), 22.IV.1986", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „Kalimpong, 600 m, 17.IV.1985", „Darjeeling D., Ch.J. Rai"; 1 (ZISP) - „Paiyue (KPG) 1400 m, 4.IV.1984", „Darjeeling D., Ch.J. Rai"; 1 (NMB) - „Bhalukope, 770 m (KPG), 17.IV.1986", „Darjeeling D., Ch.J. Rai"; 1 (MHNG) - „Kumaon (UP), Rangarh, 2000 m, I. Löbl, 4.X.79"; 1 (BMNH) - „U.P., Chakrata Div., 7-9000 ft, V.1928, H.G. Champion"; 5 (BMNH) - „Kumaon, W.Almora, H.G.C.", „H.G. Champion"; 1 (ZSM) - „Dehra Dun, Mussoorie, 2006 m, VIII.1961, G. Scherer"; 1 (BMNH) - „U.P., Dehra Dun, 20.iii.1923, H.G. Champion", „in pear blossom"; 4 (BMNH) - „Nainital, Kumaon, U.P., H.G.C.", „H.G. Champion"; 4 (BMNH, ZISP) - „in spathes *Arisaema tortuosum*", „Nainital, U.P., 7-8600 ft, June 1923, H.G.C.", „H.G. Champion"; 4 (ZSM, ZISP) - „Naini Tal, Bhim Tal, 609 m, VIII.1961, G. Scherer"; 1 (BMNH) - „Kurseong, Verschraegben, 1904"; 7 (BMNH, ZISP) - „Gopaldhara, Rungbong Vall., Sikkim, H. Stevens"; 1 (MMUE) - „Sikkim, 1920s, H. Stevens"; 1 (NMB) - „Deehiling, 1200 m, 29.IV.1985", „E Sikkim, Ch.J. Rai"; 2 (NMW) - „Sikkim", „C.F. Baker Coll."; 1 (ZSM) - „Assam, Khasi-Hills, Shillong, 1500 m, V.1961, G. Scherer";
Nepal: 1 (NMB) - „W-Nepal, Kali Gandaki Khola, Bhakta B.", „C.J. Rai"; 1 (NMB) - „Kali-G. Khola, Beni-Kusma, 1000-800 m, 30.VI-1.VII.86", „Dhawalagiri, Myagdi D., C. Holzschuh"; 1 (NMB) - „Kali-G. Khola, Tatopani, 1100-1400 m, 27-28.VI.1986", „Myagdi D., C. Holzschuh"; 2 (NMB, ZISP) - „Khola, Kalopani, 25/2800 m, 21-25.VI.1986", „Myagdi D., C. Holzschuh"; 3 (NMB, ZISP) - ibid. „Kopchepani, Kalopani, 1500-2400 m, 16.V.84", „Kali Gandaki, Khola, C.J. Rai"; 2 (NMW, ZISP) - „C-Nepal, Kathmandu-Valley, Godavari, 1450-1750 m, 17-18 Mai 1990, leg. Probst"; 1 (CNC) - „Ktmd., Pulchauki, 8000', 23.VII.1967, Mal. Tr., Can. Exped."; 2 (NMB) - „Godavari, 1500 m, 19.V.1989, M. Brancucci" (21-27.V.1989); 1 (NMB) - „Godavari, 1500-1700 m, 31.V-4.VI.87", „C.J. Rai"; 1 (NMB) - „Dhankuta-Hills, 1150-2000 m, 24-25.V.1983", „E-Nepal, Thamur V., M. Brancucci"; 4 (NMB, ZISP) - „Basantapur, 2300 m, 30.V-2.VI.85", „E Nepal, Koshi, M. Brancucci";
Bhutan: **holotype** *E. (M.) confinis*, male (NMB) - „Thimphu, Taksang, 1.5, 2200-2700 m", „Nat. Hist. Museum Basel -Bhutan Expedition, 1972"; 1 **paratype** *E. (M.) parabraeti*, female (NMB) - „Chimakothi, 22.5", „Nat. Hist. Museum Basel -Bhutan Expedition, 1972"; 1 **paratype** *E. (M.) parabraeti*, male (NMB) - „Dorlula, 2400 m, 29.6", „Nat. Hist. Museum Basel -Bhutan Expedition, 1972";
Myanmar (Burma): **lectotype** *E. (M.) reticulata*, male (MSNG) here designated and 1 **paralectotype**, female (MSNG) - „Carin-Chebá, 900-1100 m, L. Fea, V-XII-88", „*Epuraea reticulata* ty. Grouv." (written by

A. Grouvelle); 4 (NRS) - „N.E.Burma, Kambaiti, 7000 ft, 17/5/1934, R.Malaise" („23/5/1934","4-8/6/1934") (determined by O. Sjöberg as „*E. marginata* Grouv." and „*E. exculta* Grouv.");
Vietnam: 10 (ZISP) - „gory (mountains) 50 km NO Thai Nguyên, blossoming bushes, 2.03.1963, O. Kabakov"; 1 (ZISP) - „gory (mountains) SO Son duong, 300 m, 21.3.1962, Kabakov"; 1 (ZISP) - „400 m, Son duong, „lukovitzi" (onions of) *Dillenia*, 24.3.1962, Kabakov"; 2 (ZISP) - „105 km NW Thanh Hoa, 5-6 km SW Lang Chàng, 23.1.1989, B. Korotyaev, les u ruchja (forest at brook)"; 1 (NMW) - „25.V-10.VI., Sapa (Lao Cai), 22°20'N 103°50'E, E. Jéndek, 1991"; 2 (TMB) - „Cuc phuong, Ninh binh, 3-10.V.1966, Gy. Topál", „ N 200, beaten from bushes near creek";
Malaysia: 1 (collection of T.-E. Leiler) - „Penang, Ferringh, 4.2.1984, T.-E. Leiler"; 4 (ZISP, ZML) - „Cameron Highl., Beringhang, 19-23. I. 1981, 1500 m. o. h., T. Palm";
and also examined specimens from Bhutan (NMB) named by Jelinek (1978) as „*Epuraea braeti*".

Comments to descriptions of Grouvelle (1892a, 1894b, 1903a, 1908) and Jelinek (1978): Apart from the original characterisation of *E. (M.) parabraeti* in its first original description, it should be noted that the body shape of the studied paratype from Chimakothi is almost shaped as *E. (M.) wittmeri*, labrum scarcely excised at middle, inner edges of antennal grooves sharply developed and arcuately convergent behind mentum (minimal distance between them about twice as wide as tibiae at apex), dorsal punctation rather fine and sparse (with interspaces on pronotum about 1.5 and on elytra - 2 puncture diameters) and microreticulation between punctures very conspicuous. Distance between fore coxae a little narrower, that between hind ones and almost 3 times broader than distance between mid coxae, hind edge of metasternum between coxae slightly angularly excised. The second studied paratype of *E. (M.) parabraeti* from Dorlula (not listed in the paper with the description) is small (2.7 mm) and dark specimen with comparatively narrower pronotum rather narrowed to base and widely explanate at sides (an extreme of variability). The holotype of *E. (M.) confinis* is comparatively small but has a characteristic appearance. At the same time types of *E. (M.) braeti* are quite similar to those of *E. (M.) reticulata*.

In general this species is characterized by a high level of variability of external features, which are partly reflected in the repeatition of the descriptions as mentioned above. Secondary sexual projection on hind edge of hind femur extremely variable: from a lightly prominent tubercle up to sharp process. As to projection along hind edge of male mid femur, it is quite rarely developed. One specimen from Gopaldhara is very shiny and with sparse punctuation. The specimen from Phulchoki (Nepal) has an abnormally slender body [as in paratype of *E. (M.) parabraeti*] and rather dark colouration, although its genital structures and secondary sexual characters of femora are as those in the lectotype of *E. (M.) reticulata*. Moreover, tegmen and penis of both mentioned specimens with the same configuration as those drawn in the paper by J. Jelínek of *E. (M.) parabraeti* (Jelinek, 1978: figs. 15, 16), only the penis trunk is partly more prolonged and acute before abrupt apex. The apical outline of penis trunk depends on degree of curvature (which is rather variable) and position of penis trunk viewed by observer. At the same time, visible differences between the tegmens *E. (M.) parabraeti* and *E. (M.) confinis* (Jelinek, 1978: figs. 13 and 15) partly reflect the variability of this organ and, on the other hand, connected with this position of it before the observer as in case with penis. Finally, it should be noticed that apices of lateral lobes of tegmen in most specimens from The Himalayas are usually more or less subacute, although those of the lectotype of *E. (M.) reticulata* are rounded as those drawn for *E. parabraeti* (Jelinek, 1978: fig. 15).

Diagnosis: This species belongs to the *consobrina*-group and is distinguished from other species of the group in characters of elytral apices and secondary sexual characters in legs; also it differs from:
- *E. (M.) bergeri* in more shiny, less densely punctated and less densely pubescent body and more widened prosternal process;
- *E. (M.) consobrina* and *E. (M.) kompantzevi* new species in more convex and usually more shiny body, and from the last also in lighter coloration and longer elytra;
- *E. (M.) scapha* new species in slender and larger body with longer elytra and considerably more conspicuous pubescence.

Notes: The synonymy of *E. (M.) reticulata*, *E. (M.) braeti*, *E. (M.)*

parabraeti and *E. (M.) confinis* is explained in the comments to descriptions (see above). Description of *E. (M.) omissa* leaves no doubt in conspecific status of the described type series with *E. (M.) reticulata*.

The studied specimen which is here presumed to be the holotype of *Epuraea ornata* (Grouvelle, 1903, non *Epuraea longula* var. *ornata* Reitter, 1872, nec *Omosita ornata* Grouvelle, 1903a) was collected by H. Fruhstorfer and not M. Harmand, who was mentioned in the title of the paper which includes the description of *E. ornata*. Nevertheless, it is thought that this specimen was in the hands of A. Grouvelle when he described this species and (as in the case with *Meligethes (Meligethes) castanescens* - see the next part of this monograph) it can be designated (if not as the type specimen) at least as a neotype collected in the type locality. The specimen corresponds quite well to the original description, although its body is larger (length 2.9, breadth 1.7, height 0.9 mm).

B i o n o m y: The imagines of this species have been captured in mountain forest at elevations over 400 m above sea level, but usually over 1000 m and even more frequently over 2000 m, within March-December, although more usual during spring and early summer. According to the labels it should be presumably regarded as anthophagous, at least its imagimes visit blossoming trees and bushes.

D i s t r i b u t i o n: This species has a strict himalayan-north-indochinese range, recorded from Pakistan, Punjab (Barrins, near Murree; Camp Thooba in Murree Hills and Dhelu, Mandi); India, Uttar Pradesh [Bodyar (Chakrata Division), Dehra Dun (Mussoorie), Kumaon mountains (at Rangarh and western of Almora), Ranikhet, Naini Tal and so on] West Bengal [including Darjeeling: type locality of *E. (M.) ornata* Grouvelle, 1903a, not *E. (Epuraea) longula* variety *ornata* Reitter, 1872 and not „*Omosita ornata*" Grouvelle, 1903a; Kurseon: type locality of *E. (M.) braeti*; Rinkingpong, Kalimpong, Paiyue and so on], Sikkim [Gopaldhara (Rungbong valley), Deehiling, Khasi-Hills (at Shillong)]; Nepal, Kali Gandaki [Khola [„Bhakta B.", Dhawalagiri (Myagdi), Tatopani and „Beni-Kusma" and so on), Kathmandu Valley (Godawari, Phulchoki), Thamur valley (Dhankuta-Hills), Koshi; Bhutan, near Thimbu [Taksang: type locality of *E. (M.) confinis* and Tangu: type locality

of *E. (M.) parabraeti*], Chimakothi, Dorlula, Phuntholing, Sampla-Kotoka, Wangdi Phodrang; Myanmar (Burma) Karen State [„Carin-Chebá": type locality of *E. (M.) reticulata*], Kachin State (Kambaiti); Vietnam, Thai Nguyên, So'n Du'o'ng, Thanh Ho'a (Lang Chánq), Sa Pa (Lao Cai), Cuc Phuong, Ninh Binh. The capture of this species in Assam seems to be very probable, and therefore the proposed synonymy for „*Epuraea (Epuraea) omissa*" unstudied by the author looks reasonable. The studied female from Malaysia (Penang, Ferringh) has an intermediate appearance between true *E. (M.) reticulata* and *E. (M.) subreticulata*, although taking into consideration the locality it is supposed that this specimen may belong to an other species.

Epuraea (Micruria) rhombica Kirejtshuk, 1990

Figs. 395-398; Map 11, d

=*Epuraea (Micrurula) rhombica* Kirejtshuk, 1990a: 62 (North Vietnam).

M a t e r i a l -
total 2, including holotype (ZISP - Kirejtshuk, 1990a) and 1 paratype (ZISP - Kirejtshuk, 1990a).

D i a g n o s i s: This species can be easily diagnosed not only from its relatives [*mandibularis*-group - see diagnosis to *E. (M.) calcarifera* new species], but also from all members of the genus by its very characteristic elytral outline (especially in males). Besides that, necessary diagnostic characters are included in the above key to species of the subgenus.

B i o n o m y: According to the information from the collector, this species has been captured in primary rainforest in March.

D i s t r i b u t i o n: This species is known only from its type locality: Vietnam, Đông Ho'i (Raote).

Epuraea (Micruria) rotundula new species

Figs. 399-405; Map 11, e

Material -

Nepal: holotype, female (SMS) - „319 Ilam Distr., Mai Pokhari, 2100-2200 m, *Castanopsis* forest remnants, 9-10 April 1988, J. Martens & W. Schawaller".

Description of holotype (female): Length 2.3, breadth 1.3, height 0.8 mm. Rather convex dorsally and moderately ventrally; chestnut brown with pronotal disc and metasternum darkened (metasternum almost black), and antennae, mouth parts, legs and abdomen including pygidium lighter (light brown or almost reddish); dorsum and ventral surface with a faint fat sheen; dorsum with recumbent, moderately dense and not very conspicuous yellowish golden hairs, about twice as long as distance between their insertions, underside with recumbent thinner, shorter and slightly conspicuous hairs. Head and pronotal surface with not quite distinct oval punctures considerably smaller than eye facets, interspaces between them one to two puncture diameters and with dense and contrasting cellular microreticulation. Elytral surface nearly as that on head and pronotum, but with punctures slightly smaller and less visible. Pygidium with distinct oval punctures almost as large as eye facets, separated by 1/2-2/3 puncture diameter and space between them with smooth microreticulation. Ventral surface with punctures much less than eye facets, interspaces between them 2-5 puncture diameters and more or less smoothly microreticulated or alutaceous, prosternum with scarcely distinct punctation and almost dull. Head 2/3 as long as distance between rather large eyes, scarcely convex with distinct transverse depression between antennal insertions; eyes composed of rather large facets. Mandibles slightly exposed before labrum. Antennal grooves slightly developed and convergent behind mentum. Last labial palpomere narrowed to transverse apex, almost 1.5 times as long as wide. Mentum trapezoidal, with rounded outline, about 2.5 times as wide as long. Antennae somewhat shorter than head breadth, club nearly 1/3 total antennal length. Pronotum moderately and evenly convex, with scarcely emarginate apex, widely rounded hind corners and gently sloping sides to unexplanated edges. Scutellum subtriangular with narrowly rounded apex. Elytra not longer than combined width; sides steeply (subvertically) sloping to unexplanate side edges, apices transversely subtruncate and forming a blunt sutural corner. Pygidium moderately exposed from under elytra and with flattened and somewhat extended subacute apex. Prosternal process as in *E. (M.) biplagiata* new species. Distance between fore coxae subequal and that between hind ones nearly 2.5 times as broad as that between mid ones. Mesosternum without any developed medial carina. Metasternum flattened and with a raised medial suture in distal third before its hind edge, which looks like a shallow angular excision between coxae. Ventrite 1 about as long as ventrites 2-4 together and as long as hypopygidium with widely rounded apex. Epipleura somewhat wider than antennal club. Legs comparatively stout. Fore tibia somewhat wider than antennal club with slightly curved outer edge before weakly raised subapical tooth; mid and hind ones subtriangular and slightly wider than fore one; their outer edges with a row of stout and very short spines and a subapical one particularly developed. Femora with fore and hind edges gently convex (although hind one with nearly rectilinear hind edge), greatest width in distal half; fore and mid femora nearly 1 1/3 times as wide as corresponding tibiae, but hind one about 1 and 1/2 as wide as hind tibia. Fore tarsi 1/2 as wide as corresponding tibiae, mid and hind ones narrower; claws slightly toothed at base. Ovipositor weakly sclerotized.

Diagnosis: This new species is quite well characterized by its rather stout legs with slightly toothed tarsal claws, shape of labrum, more or less distinct punctation and normal microreticulation on dorsal sclerites, as well as nearly subequal penultimate and ultimate segments of antennal club (see also the diagnosis to *E. (M.) biplagiata* new species and above key).

Bionomy: The holotype of this species was collected in *Castanopsis* forest remnants in April.

Distribution: This species is known only from its type locality: Nepal, Ilam District (Mai Pokhari).

Etymology: The name of this new species is formed from the Latin „rotundus" (round).

Epuraea (Micruria) scapha new species

Figs. 406-414; Map 12, b

Material -
total 3, holotype (TMB) and 2 paratypes (ROM, ZISP) -
Vietnam: holotype, male (TMB) and 1 **paratype**, female (ZIN) - „Cuc Phuong, Ninh binh, 3-10.V.1966, Exp. Gy. Topál", „N 268, beaten from bushes near creek"; 1 **paratype** (ROM) - „Cao Bang: Ba Be Natl. Park, field behind bulldozed area by dorm annex., 23-27 MAY 1995, C. Condy", „Pitfall trap (banana), elevated".

Description of holotype (male): Length 2.5, breadth 1.4, height 0.6 mm. Rather convex dorsally and moderately ventrally; unicolored straw reddish; dorsum moderately shiny and ventral surface with a faint sheen; dorsum with moderately dense, but strongly conspicuous hairs, nearly as long as distance between insertions. Dorsal surface (except pygidium) with very shallow and indistinct punctures appearing much larger than eye facets and with very smooth microreticulation on interspaces between them. Surface of pygidium and hypopygidium with a somewhat more clear punctation than that on other dorsal sclerites, but interspaces between punctures with more developed microreticulation. Surface of prosternum without any visible punctation, but with very dense and fine microreticulation. Rest of ventral surface (except hypopygidium and prosternum) with indistinct punctures as those on dorsum, but with quite conspicuous cellular microreticulation on interspaces between them. Pronotum rather convex, sides comparatively steeply sloping to unexplanate edges. Elytra rather short, with distinctly transversaly truncate apices and widely rounded at outer apical corners. Mid and hind tibiae with an excavate inner part of dorsal surface (in hind ones more excavate than in mid ones). Hind femora with a strong projection at hind edge of distal half. Fore tarsi slightly narrower than corresponding tibiae; tarsal claws with a weak, but distinct tooth at base. Aedeagus well sclerotized.

Female: Length 2.9 mm. In contrast to the male, dorsum with a distinct and conspicuous cellular microreticulation on interspaces between punctures. Elytra somewhat longer than combined width. Fore tarsi 3/4 as wide as corresponding tibiae. Ovipositor weakly convex.

Variations: The second male (paratype) is rather similar to the described one, but its dorsum with more expressed microreticulation and excavation of its mid tibiae are not so distinct.

Diagnosis: This new species differs from all representatives of the *consobrina*-group [see above - diagnosis to *E. (M.) consobrina*] in the comparatively small and robust body with more or less short elytra, distinct secondary sexual characters in shape of elytral apices and structures of legs. Besides, this species has to a certain extent a somewhat distinctive aedeagus. Finally, *E. (M.) scapha* new species also differs from:

- *E. (M.) bergeri* in more shiny, much more sparsely and less distinctly punctured, less densely pubescent body and strongly widened prosternal process;
- *E. (M.) consobrina* in lighter coloration, more subquadrate outline and convexity of body;
- *E. (M.) kompantzevi* new species in more subquadrate body outline with more convex dorsum covered with less conspicuous pubescence;
- *E. (M.) reticulata* in lighter coloration, more dull, less distinctly, but more coarsely punctured and less conspicuously pubescent dorsum;
- *E. (M.) subreticulata* in less regularly cellular microreticulation and less conspicuous pubescence on dorsum.

Bionomy: The imagines have been collected on trees and bushes in mountain forest in May and probably visit decaying fruits and flowers of trees and bushes.

Distribution: This species is known only from Vietnam: Cuc Phuong, Ninh Binh (type locality) and Cao Bang (Ba Be National Park).

Etymology: The Latin name of this new species is formed from the Greek „scapha" (boat, canoe, shuttle).

Epuraea (Micruria) specialis new species

Figs. 415-419; Map 12, c

Material-

Nepal: holotype, female (CNC) - „Ktmd., Pulchauki, 8000', 27.VII.1967, Can. Nepal Exped."

Description of holotype (female): Length 2.2, breadth 1.1, height 0.6 mm. Rather convex dorsally and moderately ventrally; discs of pronotum, elytra, prosternum and also ventrites 2-4 dark brown; meso-, metasternum and ventrite 1 almost black; head, edges of pronotum, scutellum, a wide subsutural stripe and edges of each elytron, hypomera, hypopygidium, antennae and legs light reddish; body without any apparent lustre; dorsum with very long and strongly conspicuous yellowish hairs, more than 3 times as long as distance between their insertions. Head surface with shallow, but well outlined punctures, smaller than eye facets, interspaces between them about one puncture diameter, finely and conspicuously microreticulated. Pronotal surface with denser and less distinct punctures than those on head and more raised microreticulation on interspaces between them. Elytral surface with almost invisible punctation and very raised cellular microreticulation. Surface of pygidium and ventral sclerite nearly as that on head, although prosternum unpunctured and metasternum with more distinct, denser and deeper punctures. Head about as long as distance between moderately large eyes, slightly convex and with a weak depression between antennal insertions. Eyes consisting of moderately large facets. Antennae nearly as long as head breadth, their club about 1/3 total antennal length. Pronotum strongly convex, with comparatively steeply sloping sides which are unexplanate along lateral edges. Elytra with almost vertically sloping sides and transversely truncate apices which are somewhat rounded at inner and outer corners. Pygidium widely subtruncate at apex. Antennal grooves slightly distinct at sides of mentum, which is subpentagonal and 3.5 times as wide as long. Last labial palpomere transverse and with oblique apex. Distance between mid coxae slightly broder and that between hind ones 3 times broader than that between fore coxae. Prosternal process comparatively short and slightly curved along coxae, its apex carinate, scarcely widened and transversely abrupt in dorsoventral direction. Mesosternum uncarinate. Metasternum with a well traced medial suture and angularly excised hind edge between coxae. Ventrite 1 shorter than hypopygidium, latter with a widely rounded apex. Epipleura about as wide as antennal club. Tibiae somewhat narrower than antennal club; fore ones without any prominent process, but mid and hind ones with long subapical spines. Femora with fore and hind edges gently outlined. Fore tarsi 4/5 as wide as corresponding tibiae, mid and hind much narrower; claws slightly toothed at base. Ovipositor moderately sclerotized.

Diagnosis: This new species is well characterized by the elongate and subparallesided, strongly dorsally convex body with a dull and rather dark dorsum bearing a light subsutural stripe on elytra, dense and very conspicuous pubescence and slightly concave labrum. The most outstanding feature of this new species is the rather narrow prosternal process, only slightly curved along coxae and with an apex abrupt in dorsoventral direction (this feature is more characteristic of representatives of the Nitidulin-lineage and is unusual for the subgenus and for the subfamily Epuraeinae). *Epuraea (M.) specialis* new species bears some resemblance to *E. (M.) himalayaensis* new species differing from it in the more convex, subparallelsided and almost dull body, less rounded pronotal sides, transversely truncate elytral apices, coloration, characteristics of punctation and sculpture, excised labrum, but only slightly excised hind edge of metasternum between coxae.

Bionomy: The holotype of this species has been captured at elevations over 2500 m above sea level in June.

Distribution: This species is known only from its type locality: Nepal, near Kathmandu (Phulchoki).

Etymology: The name of this new species is formed from the Latin „specialis" (special, specialized).

Epuraea (Micruria) subtilis Grouvelle, 1894

Figs. 420-422, 656-662; Map 12, d

=*Epuraea (Epuraea) subtilis* Grouvelle, 1894b: 579 (India, West Bengal); *Epuraea (Micrurula) subtilis*: Grouvelle, 1908: 352, 355; Grouvelle, 1913a: 124; *Pria diluticollis* Grouvelle, 1913c: 102 (India, Assam, Abor), nyw synonym; *Epuraea (Micrurula) descarpentriesi* Jelínek, 1978: 188 (India or ? Pakistan, „West Himalaya, Kulu"), new synonym; *Epuraea (Micrurula) diluticollis*: Kirejtshuk, 1990a: 67 (North Vietnam).

Material -
total 20, including lectotype (MNHN) and 2 paralectotypes (IRSN) of *E. (M. subtilis*; holotype (ZSI - Kirejtshuk, 1990a) of *E. (M.) diluticollis*, holotype (MNHN) of *E. (M.) descarpentriesi* -
? **Pakistan**: **holotype** *E. (M.) descarpentriesi* (MNHN) - „Himalaya Kulu";
India: **lectotype** *E. (M.) subtilis*, female (MNHN), here designated and 2 **paralectotypes**, females (IRSN) - „Kurseong, P. Braet", „*Epuraea subtilis* ty. Grouv."; 1 (BMNH) - „U.P. Chakrata Div., 7-9000 ft, V.1928, H.G. Champion";
Nepal: 1 (SMNS) - „319 Ilam Distr., Mai Pokhari, 2100-2200 m, *Castanopsis* forest remants, 9-10 April 1988, J. Martens & W. Schawaller"; 1 (CNC) - „Kthmdu, Godavari, 5000', 20.VII.1967, Can. Nep. Exped."; 2 (NMB, ZISP) - „Godawari, 1500 m, 17.V.1983", „C. Nepal, Kathmandu V., M. Brancucci"; 1 (SMNS) - „465 Myagdi Distr., Myagdi Khola, Dobang, 2400 m, 25. V. 1995, Martens & Schawaller";
Bhutan: 3 (NMB, ZISP) - „Samchi, 350 m, 7-11.5.", „Nat.-Hist. Museum Basel - Bhutan Expedition, 1972";
Malaysia: 5 (TMB, ZISP) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29.III.1995, O. Merkl & I. Szikossy".

Redescription of lectotype of *E. (M.) subtilis* (female): Length 2.3, breadth 1.2-1.3, height 0.8 mm. Rather convex from above and moderately from below; unicoloured yellowish reddish; dorsum and ventral surface moderately shiny; dorsum with subrecumbent (or on

pygidium suberect), moderately dense and well conspicuous yellowish golden hairs, about 1.5 times as long as distance between their insertions, underside with recumbent thinner, shorter and less conspicuous hairs. Head and pronotal surface with distinct oval punctures much larger (up to 1.5 times) than eye facets, interspaces between them nearly 1/2-3/4 puncture diameter and with raised or partly smooth microreticulation. Elytral surface with punctures markedly smaller and sparser than those on head and pronotum, but interspaces between them much broader (about 1.5 times) than a puncture diameter and finely alutaceous. Pygidium with not quite distinct shallow punctures almost twice as large as eye facets, separated by one puncture diameter and space between them rather smoothly alutaceous. Ventral surface somewhat similar to that on pygidium, but punctures smaller (nearly as large as eye facets or smaller), on middle of prosternum with scarcely traced punctation and almost dull. Head hardly shorter than distance between comparatively large eyes, convex with distinct transverse depression between antennal insertions; eyes composed of moderately small facets. Mandibles slightly exposed before labrum. Antennal grooves scarcely distinct at sides of mentum. Last labial palpomere transverse and nearly cup-like. Mentum trapezoidal, twice wider than long. Antennae nearly as long as head breadth, their club nearly 1/3 total antennal length and a little wider or somewhat narrower than fore tibia. Pronotum rather convex, with scarcely emarginate apex and gently sloping sides to unexplanate edges. Scutellum subtriangular with a narrowly rounded apex. Elytra not longer than combined width; sides steeply (subvertically) sloping to unexplanate side edges, apices transversely subtruncate and forming a blunt sutural angle. Pygidium scarcely exposed from under elytra, curved below and with very widely rounded (almost abrupt) apex. Prosternal process strongly curved along fore coxae, its transverse apex approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly twice more than that between mid ones. Mesosternum without any developed medial carina. Metasternum flattened and with a raised medial suture in distal half before its hind edge, very shallowly emarginate between hind coxae (arcuately). Ventrite 1 about as long as ventrites 2-4 together and markedly longer than hypopygidium, latter with widely rounded apex. Epipleura somewhat wider than antennal

club and elevated laterally. Legs moderately developed. Mid and hind tibiae subtriangular and nearly as wide as antennal club; outer edge of mid tibia with a row of stout spines and two subapical ones especially developed, hind tibia only with rows of usual setae. Femora with fore and hind edges gently convex, fore and mid ones nearly twice as wide as corresponding tibiae, but hind one about 2.5 times wider than hind tibia. Fore tarsi 3/5 as wide as corresponding tibiae, mid and hind ones much narrower; claws strongly toothed at base. Ovipositor moderately sclerotized.

V a r i a t i o n s: Length 1.9-2.4 mm. Fore tibia slightly narrower or somewhat wider than antennal club with straight outer edge before a well prominent subapical tooth (or not strongly projecting 2 subapical teeth). Most specimens are coloured and sculptured as the lectotype, but one Nepalese specimen (CNC) has bright reddish head and pronotum, and brownish remainder of body; others from Nepal are with unicolored dark brown body and light reddish appendages. Finally, specimens from Assam and North Vietnam are almost as dark as the holotype of *E. (M.) descarpentriesi*.

D i a g n o s i s: In appearance, this species has an intermediate position between true members of the *mandibularis*-group [see diagnosis to *E. (M.) calcarifera* new species] and representatives of the subgenus similar to *E. (M.) consanguinea* (see above). *Epuraea (Micruria) subtilis* is characterized by scarcely emarginate hind edge of metasternum between hind coxae [among members of the subgenus *E. (Micruria)* this feature occurs in the east-palaearctic *E. (M.) auripubens* Reitter, 1901, *E. (M.) harmandi*, *E. (M.) potaninorum* Kirejtshuk, 1987a, *E. (M.) adolescens* new species] and rather narrow antennal club, although it belongs to *subtilis*-group [see diagnoses to *E. (M.) biplagiata* new species and *E. (M.) rotundula* new species]. This species is externally similar to some specimens of *E. (M.) convexa*; although distinct from the latter in antennal club narrower than fore tibia [in *E. (M.) convexa* much wider]; pronotum with more arched sides, more narrowed to much narrower and shallowly emarginate apex; elytra not longer than their combined width. This species also resembles the east-palaearctic pair of species consisting of *E. (M.) dura* Reitter, 1884 and *E. (M.) dentipes* Hisamatsu, 1961 but is distinct from them in much smaller body as well as in a combination of characters: shape of labrum, antennal club, last segment of labial palpi, antennal grooves and elytral apices.

N o t e s: The proposed synonymy became rather evident thanks to the study of all types for the synonymized names. The lectotype of *E. (M.) subtilis* was designated among the specimens of the Paris Museum because the type specimens for this name were found in the Brussels' collection only recently (after designation of the specimen from the Grouvelle's collection).

B i o n o m y: The imagines of this species have been captured in different types of mountain forest (including *Castanopsis* forest remants) within March-June, at elevations beginning from 350 m above sea level, but more frequently over 1500 m.

D i s t r i b u t i o n: This species has a himalayan-indochinese range and has been recorded from ? Pakistan, Punjab [„Kulu": type locality of *E. (M.) descarpentriesi*]; India, Uttar Pradesh (Chakrata Division), West Bengal [Darjeeling, Kurseong: type locality of *E. (M.) subtilis*], Assam [Abor, near Kalek: type locality of *E. (M.) diluticollis*; Nepal, Godawari (near Kathmandu), Ilam District (Mai Pokhari); Bhutan, Samchi; Vietnam, Thai Nguyên and and Tam Dao at So'n Du'o'ng; Malaysia, Pahang (Cameron Highlands at Tanah Rata).

Epuraea (Micruria) tuberculata Kirejtshuk, 1994

Figs. 424, 425; Map 13, a

=*Epuraea (?Micrurula) tuberculata* Kirejtshuk, 1994c: 106 (North Vietnam).

M a t e r i a l -
total 2, including holotype (ZISP - Kirejtshuk, 1994c) and 1 paratype (ZISP - Kirejtshuk, 1994c).

D i a g n o s i s: This species is set apart from all its congeners due to the

characteristic tubercles on the head and fore part of pronotum. *Epuraea (Micruria) tuberculata* is also well characterized by the robust and rather convex body; dark chestnut brown coloration, coarse and sparse punctation of dorsum, and comparatively short elytra.

Bionomy: The imagines of this species have been captured in lowland forest (300 and 1000 m above sea level) in March and November.

Distribution: This species is known only from North Vietnam: Tao Dao (type locality) and Thai Nguyên.

Epuraea (Micruria) vulpina new species

Figs. 426, 427

Material -

China, Sichuan: **holotype**, male (ZIN) - „dol. Da-Tzan-Lu, 23.VI.93, Potanin" (in Cyrillic letters) [= Ta-Chien-lu, Da-tzzjan-lu, or Tibetian Tarsando: according to Komarov, 1928].

Description of holotype (male): Length 3.9, breadth 1.9, height 1.1 mm. Rather convex dorsally and moderately ventrally; almost unicoloured reddish, only pronotal disc and antennal club a little darker; dorsum and ventral surface with a feeble sheen; dorsum with recumbent or subrecumbent, rather dense and extremely conspicuous yellowish golden hairs length of which is about 2.5 times as long as distance between their insertions (pygidium with very short and very dense pubescence, almost bulging); underside with thinner and less conspicuous hairs. Head and pronotal surface with distinct, irregular and almost contiguous punctures much larger (up to 2.0 times) than eye facets, narrow interspaces between them with rather smooth microreticulation. Elytral surface with punctures much smaller and markedly sparser than those on head and pronotum, interspaces between them much broader (about 1.5 times) than a puncture diameter and finely alutaceous. Pygidium with distinct oval punctures somewhat smaller than those on head and pronotum, separated by 1/5-1/4 puncture diameter and space

between them finely alutaceous. Ventral surface somewhat similar to that on pygidium, but interspaces between punctures more or less smooth, ventrite 1 punctures much sparser, middle of prosternum with scarcely distinct punctation and almost dull. Head 4/5 as long as distance between moderately large eyes, slightly convex with rather distinct transverse depression between antennal insertions; eyes composed of moderately small facets. Mandibles moderately exposed before labrum. Antennal grooves scarcely distinct only at sides of mentum, behind it two parallelsided antennal ridges are present which look like continuations of mental sides. Last labial palpomere elongate and slightly bulging at base, nearly 2.5 times as long as wide. Mentum 4 times as wide as long. Antennae somewhat longer than head breadth, club oviform, nearly 1/3 total antennal length, about 3/4 as wide as long. Pronotum rather convex, with scarcely emarginate apex, distinct hind corners and gently sloping sides to narrowly explanate edges. Scutellum subtriangular with a widely rounded apex. Elytra somewhat longer than combined width; their sides steeply (subvertically) sloping to almost unexplanate edges, apices almost forming a joint curve with weak sutural angle. Pygidium entirely exposed from under elytra and convex, with transverse apex, under which subangular apex of anal sclerite is exposed. Prosternal process strongly curved before its expanded transverse apex along fore coxae and approaching the rather excavate surface of mesosternum. Distance between fore coxae subequal and that between hind ones nearly 2.5 times broader than that between mid ones. Mesosternum without any developed medial carina. Metasternum with a raised medial suture in somewhat depressed distal half before its hind edge, which is angularly excised between hind coxae. Ventrite 1 about as long as ventrites 2-4 together, markedly longer than hypopygidium with slightly bisinuate apex. Epipleura somewhat wider than antennal club.Legs moderately long and thin. Fore tibia somewhat narrower than antennal club, with straight outer edge before a moderately prominent subapical process with a weakly forked apex; mid and hind tibiae subtriangular with feebly projecting subapical corner nearly as wide as fore one; outer edge of mid tibiae with rows of stout spines and a subapical one slightly more developed, hind tibia only with rows of usual setae. Femora with fore and hind edges gently convex with breatest width at base or in basal half, fore and mid ones nearly 1.5 times as

wide as corresponding tibiae, hind one about 2.0 times wider than hind tibia. Fore tarsi 3/4 as wide as corresponding tibiae, mid and hind ones much narrower; claws slightly toothed at base. Aedeagus membranous with configuration of penis and tegmen as in *E. (M.) auripubens*.

D i a g n o s i s: *Epuraea (Micruria) vulpina* new species is easily recognisable from all the representatives of the subgenus by the parallelsided antennal ridges which usually occur in many groups of the Nitidulin-lineage (in particular among Nitidulinae and Meligethinae), but (as far as I know) almost never in groups of the Carpophilin-lineage (Calonecrinae, Carpophilinae, Epuraeinae, Amphicrossinae). Another characteristic feature of this new species is an unexcised labrum [known among members of the subgenus only in *E. (M.) auripubens* and *E. (M.) himalayaensis* new species]. Finally, *E. (M.) vulpina* new species has the largest body among representatives of *E. (Micruria)*. This new species is obviously close to *E. (M.) auripubens*, but different from it in the distinctly explanate pronotal sides, finer elytral punctation, more distinct and somewhat sparser pygidial punctation. Moreover, this new species differs from:

- *E. (M.) insolita* also in flattened head, slightly emarginate fore edge and acute hind corners of pronotum, finer and closer punctation, more developed microreticulation, narrowed elytral apices, much less conspicuous pubescence, much wider femora and not so long tarsal claws with a small tooth at base;
- *E. (M.) tschistyakovae* Kirejtshuk, 1987a in slightly emarginate fore edge and much more convex disc of pronotum, more distinct and denser punctation on ventral surface.

B i o n o m y: The holotype of this species was collected in June.

D i s t r i b u t i o n: This species is known only from its type locality: China, Sichuan, near Kangding [„Ta-Chien-lu", „Da-tzzjan-lu", or „Tarsando"].

E t y m o l o g y: The name of this new species is formed from the Latin „vulpinus" (adjective fox).

Epuraea (Micruria) wittmeri Jelinek, 1978

Figs. 427-431; Map 13, b

=*Epuraea (Micrurula) wittmeri* Jelinek, 1978: 190 (Bhutan); *Epuraea (Micrurula) accurata* Kirejtshuk, 1987a: 69 (Japan, Honshu; China, Fujian), new synonym; Kirejtshuk, 1992: 123.

M a t e r i a l -

total more than 200, including holotype (ZMB) and 3 paratypes (BMNH, MAK, ZISP) of *E. (M.) accurata*; 1 paratype (NMB) of *E. (M.) wittmeri* -

India: 5 (ZSM, ZISP) - „Darjeeling, W.B., Tiger-Hill, 2595 m, VI.1961, G. Scherer";

Bhutan: 1 **paratype** *E. (M.) wittmeri*, male (NMB) - „Kotoka-Gogona, 2600-3400 m, 10/6", „Nat. Hist. Museum, Basel -Bhutan Expedition 1972";

China: 9 (ZSM, ZISP) - „Kiautschau"; 213 (MAK, ZISP) - „Kuatun (2300m), 27.40 n.Br. 117.40 ö.L., J. Klapperich, 1.4-30.5.1938 (Fukien)";

Japan: 8 (ZMB, ZISP) - „Kiroshima-Bge., Hüdepohl, 5.70".

D i a g n o s i s: This species is easily diagnosed due to comparatively wide and slightly convex body with pronotum widest at base; and also due to the characters mentioned in the key to species (see above). This species could probably be considered to comprise 2 subspecies (east palaearctic and himalayan ones), but a study of variability among more than three hundred specimens from different localities (including Japan) has given no reliable feature to separate them. Moreover, *E. (M.) wittmeri* is very similar to *E. (M.) cerina* differing from it only in arched and subexplanate pronotal sides, somewhat shorter elytra and characters of aedeagal structures.

N o t e s: The proposed synonymy has a tentative character until a study of additional specimens from different parts of the area of *E. (M.) wittmeri* sensu stricto and *E. (M.) accurata* sensu stricto.

Bionomy: This species has been captured in mountain forest mostly at elevations over 2000 m above sea level within April-June.

Distribution: This species has been collected in few localities shown a surprisingly wide range. It has been recorded from the East-Chinese (Palaearchearctic) province [Japan, Honshu, including „Hagi": type locality of *E. (M.) accurata* and Hiroshima; China, Fujian (Aotou), Fuzhou and Kien-Chang (Jianxi)] as well as Himalayan province [India, West Bengal (Darjeeling, Tiger-Hill); Bhutan, „Kotoka-Gogona": type locality of *E. (M.) wittmeri*].

VI. Subgenus *Epuraea (Ceroncura)* Kirejtshuk, 1994

=*Epuraea (Ceroncura)*: Kirejtshuk, 1994c: 126. Type-species: *Haptoncura dubitabilis* Grouvelle, 1890 (by monotypy - Kirejtshuk, 1994c: 126).

Diagnosis: This subgenus is characterized by 8-segmented antennal club in males (the unique feature among the subfamily Epuraeinae), having an appearance somewhat similar to members of the *consobrina*-group from the subgenus *E. (Micruria)* (see above). Secondary sexual dimorphism of *E. (C.) dubitabilis* is also analogous to that of some of the mentioned group of *E. (Micruria)*, but the aedeagus is rather longer than that among members of the compared group.

Bionomy: No bionimic data are known on the type species of this subgenus, except for elevation of the type locality above sea level and month of capture of the type series.

Composition and distribution: This subgenus is represented by a single species recorded from northern Indochina [Nyamar (Burma) - see below].

Epuraea (Ceroncura) dubitabilis (Grouvelle, 1890)

Figs. 433-439; Map 13, c

=*Haptoncura dubitabilis* Grouvelle 1890a: 121 [Myanmar (Burma)]; *Epuraea (Epuraea) dubitabilis*: Grouvelle, 1913a: 113; *Epuraea (Ceroncura) dubitabilis*: Kirejtshuk, 1994c: 126 (systematic position).

Material -

Myanmar (Burma): holotype, male (MSNG) - „Tenasserim, M. Mooleyit, 1000-1900 m, Fea, Apr. 1887".

Redescription of holotype (male): Length 2.5, breadth 1.3, height 0.7 mm. Moderately convex dorsally and ventrally; reddish, discs of pronotum and head somewhat darkened, elytra chestnut brown, except light scutellar parts; faintly shiny; dorsum with subrecumbent, not very conspicuous yellowish golden hairs, 1.5-2.0 times as long as distance between their insertions. Surface on head with not quite distinct shallow punctures, larger or subequal to eye facets, interspaces between them about half a puncture diameter or narrower. Pronotal and elytral surface nearly as that on head, but with shallower and less distinct punctures. Pygidium and ventral surface with yet less indistinct punctation and well contrasting microsculpture. Antennae as long as head width. Antennal grooves rather deep and weakly outlined. Pronotum with lateral sides as widely explanate as width of antennal scape. Pygidium convex at apex. Prosternal process somewhat similar to that in species of the *consobrina*-group of *E. (Micruria)* and in species of *E. (Epuraeanella)*. Epipleura nearly as wide as antennal club. Mid and fore tibiae rather modified by characters of secondary sexual dimorphism. Femora of usual configuration. Fore tarsi scarcely narrower than corresponding tibiae; tarsal claw simple and long. Aedeagus well sclerotized.

Bionomy: The imagines from the type series have been captured at elevations 1000-1900 m above sea level in April.

Distribution: This species is known only from its type locality: Myanmar (Burma), Taninthayi (Tenasserim).

VII. Subgenus *Epuraea (Epuraeanella)* Crotch, 1874

=*Epuraeanella* Crotch, 1874: 76; Horn, 1879: 288; Reitter, 1884c: 242 (synonymy); Grouvelle, 1913a: 108; Reitter, 1919: 61; Kirejtshuk, 1992: 129; Kirejtshuk, Pakaluk, 1996: 146. Type-species: *Epuraea helvola* Erichson, 1843 (by monotypy).
=*Omosiphora* Reitter, 1875: 56, 63; Reitter, 1884c: 242 (synonymy); Marseul, 1885: 70; Seidlitz, 1888a: 210; Seidlitz, 1888b: 225; Ganglbauer, 1899: 472; Lameere, 1900: 345, 347; Reitter, 1911: 29, 30; Reitter, 1919: 61; Grouvelle, 1912/1913: 394; Grouvelle, 1913a: 108. Type-species *Nitidula rufa* Say, 1825 (here designated).

D i a g n o s i s: The most outstanding characters of this taxon are the complicated configuration of rather deepened antennal grooves and postocular fossae, almost straight hind edge of metasternum between widely separated hind coxae and roof-shaped intercoxal prosternal process, which also is rhomboidly widened at apex. Besides, species of this subgenus have a dark coloration, coarse and dense punctation, lack of sexual characters in tibiae. The palaearctic and indo-malayan species of this subgenus share a set of characters allowing to suppose their probable common origion, whereas the representatives of the Nearctic fauna have combinations of features making the separation of the subgenus not quite precise (Kirejtshuk, Pakaluk, 1996).

N o t e s: Reitter (1875) included in the genus *Omosiphora* proposed by him the nearctic „*Epuraea rufa*" and „*E. helvola*", as well as palaearctic „*E. limbata*" (Fabricius, 1787) and „*Omosiphora scalitzkyi*" Reitter, 1875. The fauna of the Palaearctic region is reviewed by Kirejtshuk (1992) and Audisio (1993), the fauna of the Nearctic region is considered by Kirejtshuk and Pakaluk (1996) but the species from the the Afro-Madagascarean regions formerly included in *E. (Epuraeanella)* (Grouvelle, 1913a, Jelínek, 1977 and others) should be regarded as members of the endemic subgenus (or genus) *E. (Africaraea)* Kirejtshuk, 1989b. The used synonymy was proposed by Reitter, (1884c), although some coleopterists ignored the validity of this subgeneric taxon at all (see explanation in Kirejtshuk & Pakaluk, 1996).

B i o n o m y: The members of this subgenus live in deciduous forests breeding on arboreal fungi from the Basidiomycetes (like some species of *Pleurotus*), besides, imagines are frequently captured under bark of different trees, fermenting tree sap, leaf litter and habits like those, but rarely on flowers [except for *E.(E.) martensi* new name]. On the territory under consideration, the species of this genus usually inhabit mountain forests over 1000 m above sea level. Imagines can be active during a comparatively long period, although they more frequently occur in late spring and early summer.

D i s t r i b u t i o n and c o m p o s i t i o n: The subgenus is distributed in the forest zone of the Holarctic regions [*E. (E.) amurensis* Kirejtshuk, 1992; *E. (E.) georgica* Reitter, 1877c; *E. (E.) hammondi*; *E. (E.) limbata* (Fabricius, 1787); *E. (E.) neglecta* (Heer, 1841) and *E. (E.) nikitskyi* Kirejtshuk, 1992 from the Euro-Asian part; *E. (E.) helvola* Erichson, 1843; *E. (E.) obtusicollis* Reitter, 1873 and *E. (E.) rufa* (Say, 1825) from North America] and 4 species are represented in the fauna under consideration [*E. (E.) fossicollis*, *E. (E.) hammondi*, *E. (E.) martensi* new name and *E. (E.) nigerrima* new species].

Key to species of subgenus *Epuraea (Epuraeanella)* from the Indo-Malayan region and adjacent territories

1 a. Body more robust, a little more than 1.5 times as long as wide; dorsum nearly unicoloured dark brown (often almost to deep black, only pronotal and elytral sides, mouth parts, antennal stems (flagelli) and legs (and sometimes abdominal apex) lighter; elytra as long as combined width, with subtruncate apices; antennal grooves with subparallelsided inner edges and with a pair of depressions (like fossae) present behind mentum; prosternal process gently declined along fore coxae to mesosternal surface 2

1 b. Body more slender, almost twice as long as wide; brownish, frequently with darkened pronotal disc and ventral surface of thoracic segments, or with darkened spots on pronotum and elytra; elytra

distinctly longer than combined width and with subrounded apices; antennal grooves represented by distinctly outlined, convergent depressions behind mentum and separated postocular fossae; prosternal process steeply declined between fore coxae to mesosternal surface forming a transverse depression before apex. 3

2 (1) **a**. Pronotum with distinctly rounded sides, narrowed to both apex and base; elytra with arcuately and moderately explanate sides, apices transversely truncate. Female: pygidial apex widely rounded. 2.8-2.6 mm. Figs. 440-442. Pakistan, Punjab; India, Darjeeling, Assam . . . . . *E. (E.) fossicollis* Grouvelle, 1908

2 (1) **b**. Pronotum almost with subrectilinear sides at base, narrowed only at subacute fore corners; elytra with subparallel and extremely narrowly explanate sides, apices widely rounded. Female: pygidial apex narrowly rounded. 2.1-2.4 mm. Figs. 458-464. Myanmar (Burma); China, Yunnan . . . . . *E. (E.) nigerrima* **new species**

3 (1) **a**. Pronotum with widely rounded fore corners, widest near middle and much more narrowed to base than to apex; elytra nearly vertical at sides; light brown (almost reddish) up to chestnut brown, sometimes with little darkened spots on pronotum and elytra, as well as with darkened (reddish) ventral surface of thoracic segments; dorsal pubescence rather conspicuous, more or less distinctly squamous and consisting of dark and light hairs which are arranged in an ornament of spots of different coloration; antennal grooves not so close together; prosternal intercoxal apex medially a little convex. Female: pygidial apex narrowly rounded. 1.9-2.3 mm. Figs. 116-125 and in Kirejtshuk, 1984: 448-457. Nepal; India, Darjeeling . . . . . *E. (E.) martensi* **new name**

3 (1) **b**. Pronotum with subacute fore corners, widest at basal third, strongly narrowed to apex and hardly to base; elytra more gently sloping to lateral edges; brown with more darkened ventral surface of thoracic segments; dorsal pubescence moderately conspicuous, unicoloured greyish yellow and scarcely squamous; antennal grooves strongly approaching each other; prosternal intercoxal apex

with a medial distinct carina. 2.7 mm. Figs. 443-447. China, Shaanxi, Yunnan. . . . . *E. (E.) hammondi* Kirejtshuk, 1992

Epuraea (Epuraeanella) fossicollis Grouvelle, 1908, **new combination**

Figs. 440-442; Map 14, a

=*Epuraea (Epuraea) fossicollis* Grouvelle, 1908: 347, 351 (India, Assam); Grouvelle, 1913a: 114.

Material -
total 10 -
Pakistan: 6 (BMNH, ZISP) - „Punjab, Murree Hills, Camp Thobba, H. Roberts";
India: 3 (ZSI, ZISP) - „W B, Darjeeling Distr., Jheri, 3.5.1976, A.R. Bhournik", „Garbage of *Cryptomorpha* leaves";
Nepal: 1 (BMNH) - „Gurjakhani, 83°14'E, 28°37'N, 8 500 ft, 3.VII.1954, K.H. Hyatt", „Damp moss and liverwort on vertical rocks".

Redescription: Length 1.8-2.6, breadth 1.1-1.5, height 0.6-0.7 mm. Rather convex dorsally and moderately ventrally; dark brown to black with lighter pronotal and elytral sides, subsutural stripes, scutellum, hypomera, epipleura, mouth parts, antennal stems (flagelli) and legs (nearly reddish), or sometimes lighter up to bright reddish; rather shiny; dorsal surface clothed with semirecumbent conspicuous greyish or whitish hairs, somewhat less or subequal to distance between their insertions; ventral surface with less conspicuous and somewhat sparse hairs. Head and pronotal surface with distinct and deep irregular punctures much larger than eye facets (up to twice), interspaces between them about 1/3 to one puncture diameter, smoothly microreticulated. Elytral surface partly similar to that on head and pronotum, but with punctures much larger and denser (in places contiguous: more frequently at bases) with interspaces between them smooth or smoothly microreticulated, although punctures towards apices more sparse and nearly dull. Surface of metasternum and 1st ventrite as on base of elytra, prosternum and its process with rather similar size of very shallow punctures and finely

microreticulated interspaces between them. Surface of ventrites 2-5 and pygidium nearly as on elytral apices, punctures somewhat smaller to those on head and pronotum. Head about 2/3 as long as distance between eyes, which are composed of facets moderate in size; dorsal surface slightly and evenly convex at base, with a weak arcuate depression between antennal insertions continuing along inner edges of eyes. Antennae nearly as long as head breadth, club as in *E. (E.) martensi* new name and comprising about 1/3 total antennal length. Pronotum with rather convex disc bearing a pair of rounded and comparatively large depressions at base, sides moderately widely subexplanate (1.5-2.0 times as widely explanate as antennal club width) bordered at edges, fore and hind corners with quite distinct apices. Elytra with sides steeply sloping at narrowly explanate lateral edges [as widely explanate as antennal stems (flagelli)], their apices subtruncate. Pygidium truncate at apex in males and rounded in females. Anal sclerite with a widely rounded apex exposed from under pygidium. Antennal grooves and postocular fossae distinctly outlined and rather deepened. Distance between fore coxae somewhat narrower and that between hind ones about twice broader than that between mid ones. Prosternal process slightly curved behind coxae and with a very widened apex gently rounded at hind edge. Mesosternum without any trace of medial carina. Metasternum flattened, with developed medial line and shallowly emarginate hind edge between coxae. Caudal marginal lines behind mid and hind coxae closely follow hind edges of coxal cavities. Ventrite 1 markedly longer than hypopygidium, but apex of the latter bisinuate in males and widely rounded in females. Epipleura almost twice as wide as antennal club. Tibiae simple and much narrower than antennal club. Femora narrow and with fore and hind edges gently curved, 1 1/3 - 1 2/3 as wide as tibiae. Tarsi not long, their 1-3 tarsomeres weakly lobed, only fore a little wider (nearly 2/5 as wide as tibiae), claws short and scarcely bulging at base. Genitalia of the both sexes well sclerotized.

D i a g n o s i s: This species is well diagnosed according to the above key. It has a rather dark body in comparison with other members of the subgenus recorded in the territory under consideration, its dorsum resembles *E. (E.) hammondi* while the ventral surface of the head is like that in *E. (E.) nigerrima* new species.

N o t e s: According to Grouvelle, 1908, the types should be in collection ZMB (or DEI), although they are missing there. It is supposed that the specimens studied by A. Grouvelle could not be returned to Berlin and now they could be deposited in Paris (MNHN).

B i o n o m y: The imagines of this species have been captured in leaf litter of mountain forest at elevations over 2000 m above sea level in May and July.

D i s t r i b u t i o n: This species is known only from the Himalayas: Pakistan, Punjab (Camp Thobba in Murree Hills); India, West Bengal (Jheri in Darjeeling District), Assam (type locality, without a more detailed indication in the original description); Nepal, Gurjakhani.

Epuraea (Epuraeanella) hammondi Kirejtshuk, 1992

Figs. 443-447; Map 14, b

=*Epuraea (Epuraeanella) hammondi* Kirejtshuk, 1992: 130 (China, Shaanxi).

M a t e r i a l -

total 3, including holotype (BMNH - Kirejtshuk, 1992) -

China: 1 (ZISP) - „Shensi, Hua Shan (3), 31.7.66, N. China, P.M. Hammond"; 1 (NMW) - „Yunnan, 1-19.VII, HEISHI, 35 km N Lijiang, 27°13' N 100°19' E, E. Jéndek".

R e d e s c r i p t i o n: Length 2.2-2.5, breadth 1.1, height 0.7 mm. Moderately convex from above and below; jet-black with lighter edges of pronotum and elytra, scutellum, hypomera, epipleura, mouth parts, antennal stems (flagelli) and legs (nearly reddish); rather shiny; dorsal surface clothed with subrecumbent conspicuous whitish hairs, length of which is a little more than distance between their insertions; ventral surface with less conspicuous and somewhat sparse hairs. Head and pronotal surface with distinct and deep punctures much larger than eye facets (up to twice), interspaces between them about 1/5-1/3 puncture diameter, smooth or with a trace of microreticulation. Elytral surface

very similar to that on head and pronotum, but punctures less distinct and somewhat elongate, at base deeper, denser and less regular (almost contiguous). Surface of metasternum and ventrite 1 as on head and pronotum, surface of prosternum resembling pronotal sides, with shallow and small punctures. Ventrites 2-5 and pygidium with smaller punctures than those on rest of the surfaces, interspaces between them finely and densely microreticulated.

D i a g n o s i s: This species is well diagnosed according to the above key. The species has the dorsum as in *E. (E.) fossicollis* but ventral surface of head as in *E. (E.) martensi* new name, although *E. (E.) hammondi* is not so dark as the former and not so light as the latter.

N o t e s: The name *E. (E.) hammondi* was proposed in the key to the Colcoptera of the Russian Far East on the basis of a single specimen (female, holotype). After the study of an additional male with the same label as the holotype and the another specimen mentioned above it is necessary to redescribe the species, which is recognizable according to the key below.

B i o n o m y: The imagines have been collected in mountains in June (probably in forest).

D i s t r i b u t i o n: For now this species is recorded only from China: Shaanxi, Hua Shan (type locality) and Yunnan, Heishi (Lijiang).

Epuraea (Epuraeanella) martensi new combination and name

Figs. 448-457; Map 14, c

=*Omosita ornata* Grouvelle, 1903a: 112 (India, Darjeeling), non *Epuraea (Epuraea) ornata* Grouvelle, 1903a: 109, nec *Epuraea longula* var. *ornata* Reitter, 1872: 17; Grouvelle, 1908: 361; 1913a: 106; *Epuraea (Epuraea) ornatula* Kirejtshuk, 1984: 178 (India, Darjeeling), new synonym, non *Epuraea (Epuraea) ornatula* Notman, 1919: 102.

M a t e r i a l -
total 45, including holotype (MNHN) of „*Omosita ornata*"; holotype (TMB - Kirejtshuk, 1984) and 2 paratypes (TMB, ZISP - Kirejtshuk, 1984) *E. (Epuraeanella) ornatula* Kirejtshuk, 1984, non *E. (Epuraea) ornatula* Notman, 1919 -

India: **lectotype** *Omosita ornata* (MNHN), here designated - „Darjeeling"; 4 (BMNH, ZISP) - „U.P., Dehra Dun, 20.III.1928, H.G. Champion", „In pear blossom"; 5 (BMNH, ZISP) - ibid... „6.III.1928, H.G. Champion"; 2 (BMNH) - „Nainital, U.P., 7-8600 ft, July 1923, H.G.C.", „H.G. Champion", „In spathes *Arisaema tortuosum*"; 2 (BMNH, ZISP) - „U.P., Chakrata Divn., Jaunsar, 31-V-1929 H.G. Champion" (1-V-1929); 1 (BMNH) - „Chakrata Div., Bodyar, 8000 ft, V.1928, H.G. Champion; 1 (BMNH) - „Darjeeling, Ghoom, „Ghum district, V-VI-31, Dr Cameron"; 1 (BMNH) - W. Almora Divn, Kumaon, U.P., June 1917, H.G.C."; 1 (BMNH) - „Sunderdhunga V., W.Almora Divn. 8000-12000 feet, June '19, H.G.C.";
Nepal: 1 (BMNH) - „Gurjakhani, 83°14'E, 28°37'N, 6 500 ft, 4-7.VII.1954, K.H. Hyatt", „Ants nest in rotting barley husks"; 1 (BMNH) - „8800', Kathmandu Dist., Phulcoki, 27-31.V.1983", „M.J.D. Brendell", „fogging oak tree"; 4 (SMNS) - „140, Manang Distr., Marsyandi, 2550 m, Thimang/Bagarchap *Tsuga-Acer-Rhododen.*, Martens & Ausobsky, 14/17 Apr. 80"; 5 (SMNS, ZISP) - „161, Mustang Distr., E. Lethe, 2450-2600 m, Laubmischwald, 30.4.-1.5.1980, Martens & Ausobsky"; 5 (SMNS, ZISP) - „328, Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16-20 April 1988, J. Martens & W. Schawaller"; 1 (SMNS) - „351, Taplejung Distr., Yamputhin, cultural land, open forest, 1650-1800 m, 26 Apr.-1 May 1988, J. Martens & W. Schawaller"; 1 (NMB) - „Manegero, 2500 m, 13.VI.89, M. Brancucci", „Bagmati, Sindhupalchok"; 1 (MHNG) - „(Prov. Bagmati) Chaubas, 2600 m, 5.IV.81, Löbl & Smetana"; 1 (ZISP) - ibid... „Malenchi, 2 800 m, 14.IV.81, Löbl-Smetana"; 1 (MHNG) - ibid... „Pokhare, N E Barahbise, 2 800 m, 2.V.81, Löbl & Smetana"; 1 (MHNG) - ibid. „N E Barahbise, 2800 m, 3.5.81, Löbl-Smetana"; 2 (MHNG, ZISP) - „distr. Kathmandu, Phulcoki, 2500 m,. 28-29.IV.84, Löbl-Smetana".

Redescription of male: Length 1.9-2.5, breadth 1.1-1.2 mm. Moderately convex from above and below; reddish to chestnut brown, frequently with pronotal disc, ventral side of epicranium and sternites of thorax more or less darkened; rather shiny; dorsal surface clothed with subrecumbent, squamous, conspicuous whitish yellow hairs (or with groups of dark hairs), length of which is a little more than distance between their insertions; ventral surface with less conspicuous and somewhat sparse hairs (Some specimens are nearly unicoloured while others have blackish pronotal disc. An unusual variability affects the colour and distinctness of the dorsal pubescence). Head and pronotal surface with distinct but comparatively shallow punctures much larger than eye facets, interspaces between them about 1/3 puncture diameter, smooth or with a trace of microreticulation, althougth punctures on pronotal disc sparser and those at its sides denser (almost contiguous). Elytral surface very similar to that on head and pronotum, with punctures somewhat elongate, at base denser and less regular, sometimes all punctures in basal half very large and contiguous. Head 5/6 as long as distance between eyes which are composed of moderately large facets; dorsal surface slightly and evenly convex, but with weak depressions along inner edges of eyes. Antennae nearly as long as head breadth, club comprising about 1/3 total antennal length. Pronotum with rather convex disk bearing a pair rounded depressions at base and a weak medial depression, sides moderately widely explanate (a little narrower than antennal club) and bordered at edges, fore and hind corners with quite distinct apices. Scutellum subtriangular with a narrowly rounded apex. Elytra with well raised shoulders and sides steeply sloping to very narrowly explanate lateral edges, sutural corner rather deep. Pygidium with apical edge widely rounded, exposed from under elytral apices. Anal sclerite with a rounded apex posteriorly far exposed from under pygidium. Antennal grooves distinctly outlined, deepened and broadened posteriorly, clear postocular fossa located behind each eye. Distance between fore coxae subequal and that between hind ones broader than twice as broad as that between mid ones. Prosternal process strongly curved behind coxae and with a widened apex approaching the mesosternal surface. Mesosternum scarcely carinate. Metasternum flat, with a developed medial line and a shallowly emarginate hind edge between coxae. Caudal marginal lines behind mid and hind coxae closely follow hind edges of coxal cavities. 1st ventrite a little longer than hypopygidium, apex of the latter almost bisinuate. Epipleura scarcely wider than antennal club. Legs moderately developed. Tibiae considerably narrower than antennal club, fore ones subtriangular, mid and hind ones almost parallelsided. Femora narrow and with fore and hind edges gently curved, 1 2/3 - 1 3/4 as wide as tibiae. Tarsi not long, their 1-3 tarsomeres weakly lobed, only fore a little wider (nearly 1/3 as wide as tibiae), claws short and scarcely bulging at base. Aedeagus rather heavily sclerotized.

Female: Differs from the male only in pygidium being rather narrowed to its almost blunt apex and hypopygidium with a widely rounded apex. Ovipositor well sclerotized.

Variations: It should be noted that all specimens of this species from Darjeeling are lighter with especially contrasting pubescence (see descriptions of „*Omosita ornata*" and „*Epuraea ornatula*" sensu Kirejtshuk, non Notman) and with apex of penis trunk wide and emarginate. In contrast, specimens from Nepal are characterized by darker body with almost unicoloured squamous pubescence and subacute apex of penis trunk.

Diagnosis: *Epuraea (Epuraeanella) martensi* new name is quite distinct from other Indo-Malayan species according to the above key. It is the smallest and most convex species among members of the subgenus.

This species is rather variable and it might be possible to divide it into two subspecific forms (see above). However, dark specimens with less rounded sides of pronotum and elytra as well as with a less regular pattern of squamose pubescence are characteristic of the series from Nepal, but some of them have been collected together with light specimens with more rounded sides and a more or less regular pattern of squamose pubescence which consists of yellowish and brown (almost black) squamulae.

N o t e s: The proposed synonymy is based on study of the type specimens of „*Omosita ornata*" Grouvelle, 1903a, not *E. (Epuraea) ornata* Grouvelle, 1903a, nec *E. (E.) longula* var. *ornata* Reitter, 1872 and *E. (E.) ornatula* Kirejtshuk, 1984a, non *E. (E.) ornatula* Notman, 1919.

B i o n o m y: The imagines of this species have been collected in mountain forests of different types at elevations usually over 2000 m above sea level (up to 4000 m) within January-July (but more frequently in May). This species is probably connected with arboreal fungi, although its imagines have been captured also on flowers of trees. Besides, this species was also captured in the nest of ants in rotting barley husks.

D i s t r i b u t i o n: This species is restricted in its range by the Himalayas and recorded from India, Uttar Predesh (Jaunsar and Bodyar in Chakrata Division, Dehra Dun, Naini Tal, Kumaon and Sunderdhunga Valley western of Almora) West Bengal [Darjeeling, without a more detailed indication: type locality of „*Omosita ornata*" Grouvelle, 1903a: 112, not *E. (Epuraea) ornata* Grouvelle, 1903a: 109 and not *Epuraea longula* variety *ornata* Reitter, 1872 and Ghum: type locality of *E. (Epuraeanella) ornatula* Kirejtshuk, 1984, not *E. (Epuraea) ornatula* Notman, 1919; Goom in Ghum District]; Nepal, Gurjakhani, Phulckoki (Kathmandu valley), Marsyandi (Manang District), eastern of Lethe (Mustang District), Paniporua (Panchthar District), Yamputhin (Taplejung District), Manegero and Chaubas (Bagmati District), Pokhare (north eastern of Barahbise).

E t y m o l o g y: The species is here named in honour of the zoologist Jochen Martens (Mainz) who collected many interesting beetles in Nepal.

Epuraea (Epuraeanella) nigerrima new species

Figs. 458-464; Map 14, d

M a t e r i a l -
total 6, including holotype (ZISP) and 5 paratypes (NMW, NRS, ZISP)

Vietnam: **holotype**, male (ZIN) - „Prov. Vinh Phu, Tam Dao, 17-31.5.1995, A. Gorokhov";
Myanmar (Burma): 4 **paratypes** (NRS, ZIN) - „N.E.Burma, Kambaiti, 7000 ft, 25-27.4.1934, R. Malaise" („1.5.1934", „28.5.1934");
China: 1 **paratype** (NMW) - „Yunnan, 1-19.VII, HEISHI, 35 km N Lijiang, 27°13' N 100°19' E, E. Jendek".

D e s c r i p t i o n of holotype (male): Length 2.3, breadth 1.1, height 0.7 mm. Moderately convex from above and below; jet-black with lighter scutellum, mouth parts, antennal stems (flagelli) (nearly reddish); rather shiny; dorsal surface clothed with semirecumbent conspicuous whitish hairs, is a little longer than distance between their insertions; ventral surface with less conspicuous and somewhat sparse hairs. Head and pronotal surface with distinct and deep punctures much larger than eye facets (up to twice), interspaces between them about 1/5-1/3 puncture diameter, smooth or with a trace of microreticulation. Elytral surface very similar to that on head and pronotum, punctures less distinct and somewhat elongate, at base deeper, denser and less regular (almost contiguous). Surface of metasternum as on head and pronotum (but punctures not deepened), surface of prosternum resembling pronotal sides. Ventrites and pygidium with smaller punctures than those on rest of surface, interspaces finely and densely microreticulated. Head about 2/3 as long as distance between eyes which are composed of moderately large facets; dorsal surface slightly and evenly convex at base, but with weak depressions along inner edges of eyes. Antennae nearly as long as head breadth, club as viewed as that in *E. (E.) martensi* new name and comprising about 1/3 total antennal length. Pronotum with rather convex disc bearing a pair rounded depressions at base, sides moderately widely subexplanate (nearly as wide as antennal club) and bordered at edges, fore and hind corners with quite distinct apices. Elytra with well raised shoulders and sides steeply sloping to very narrowly explanate lateral edges, sutural angle moderately deep. Pygidium with apical edge widely rounded, partly exposed from under elytral apices. Anal sclerite with a rounded apex scarcely exposed from under pygidium. Antennal grooves distinctly outlined as in figs. 460. Distance between fore coxae somewhat narrower and that between hind ones about 1.5 times broader than that between mid ones. Prosternal process

gently sloping behind coxae and with widened and almost semicircular apex approaching the mesosternal surface. Mesosternum without any trace of medial carina. Metasternum flattened, with a distinct medial line and a shallowly emarginate hind edge between coxae. Caudal marginal lines behind mid and hind coxae close to hind edges of coxal cavities. 1st ventrite a little longer than hypopygidium, apex of the latter subtruncate. Epipleura much wider than antennal club. Legs moderately developed. Tibiae considerably narrower than antennal club, fore ones subtriangular, mid and hind ones almost parallelsided. Femora narrow and with fore and hind edges gently curved, 1 1/3 - 1 2/3 as wide as tibiae. Tarsi not long, their 1-3 tarsomeres weakly lobed, only fore a little wider (nearly 2/5 as wide as tibiae), claws short and scarcely bulging at base. Aedeagus rather heavily sclerotized.

F e m a l e: Differs from the male only in narrowly rounded apex of pygidium and widely rounded apex of hypopygidium. Ovipositor well sclerotized.

V a r i a t i o n s: Length 2.1-2.4 mm. Some variation is to be found in punctation and shine of the dorsal surface.

D i a g n o s i s: This new species can be easily distinguished after the above key. It has a distinctive shape of pronotum and rather light coloured scutellum.

B i o n o m y: The imagines of this species have been captured in mountain forest at elevations about 2000 m above sea level and above in May and July.

D i s t r i b u t i o n: This species is recorded from Vietnam, Province Vinh Phu (Tam Dao: type locality); Myanmar (Burma), Kachin State (Kambaiti) and China, Yunnan (Heishi, Lijiang).

E t y m o l o g y: The name of this new species is formed from the Latin „niger" (black, dark).

VIII. Genus *Grouvellia* Kirejtshuk, 1984

=*Grouvellia* Kirejtshuk, 1984: 172. Type-species: *Haptoncus piceus* Reitter, 1873 (by monotypy).

D e s c r i p t i o n: Small, robust, rather vaulted at sides; reddish to brownish with lighter appendages; slightly and finely pubescent; dorsum with sparse and not quite distinct coarse punctures, interspaces between them with conspicuous microreticulation. Head short, transverse, with comparatively small eyes composed of rather small facets and mouth parts strongly projecting anteriorly. Antennae comparatively long and with very narrow 3-segmented club. Labrum with two long and exposed lobes. Mentum subquadrate, slightly longer than wide. Last maxillary and labial palpomeres thin and subcylindrical. Antennal grooves slightly developed at sides of mentum. Pronotum subquadrate, slightly narrowed to weakly emarginate apex, its base subtruncate. Elytra about as long as their combined width and widely rounded at apices. Epipleura upwardly sloped laterrally. Apex of prosternal process rhomboid. Caudal marginal lines of both mid and hind coxal cavities undeveloped. Legs fairly thin, hardly dilated, tibiae weakly widened to apex and scarcely dorsoventrally depressed, outer edge of mid and hind tibiae with rows of very weak setae, tarsomeres 1-3 narrow and slightly lobed, claws rather thin. Genitalia of both sexes slightly or moderately sclerotized.

D i a g n o s i s: This genus is well distingushed from all genera of the tribe Epuraeini by the mouth parts and particularly shape of elongate mentum. The representatives of it have compact and convex body with fore part of head rather projecting forwards, short elytra, longer labral lobes, long antennae, narrow and long legs with hind tarsomeres 5 much longer than combined length of those 1-4, fine and not quite distinct punctation and conspicuous alutation on dorsal sclerites. It is more similar to the *Propetes* sensu lato but differs from the latter in small eyes composed of rather small facets, more elongate and narrow antennal club, narrow legs with simple tibiae and much longer hind tarsomeres 5 [see also diagnosis of *P. (Propetes)* sensu stricto about relations of the both genera to other similar groups of the tribe Epuraeini].

N o t e s: The genus seems to be closely related to *Propetes* sensu lato.

B i o n o m y: The species of this genus as those of *Propetes* sensu lato are anthophagous, although in contrast to the members of *Propetes* sensu lato *G. picea* prefers to live in mountain forest.

C o m p o s i t i o n and d i s t r i b u t i o n: This genus is represented by single described species (*G. picea*) recorded only continental part of the Indo-Malayan region and the second species collected in the Papuan province remains still unpublished.

Grouvellia picea (Reitter, 1873)
Figs. 465-470; Map 14e

=*Haptoncus piceus* Reitter, 1873: 178 [Myanmar (Burma)], non *Haptoncus piceus* Alluaud, 1900 (1902): 116; Grouvelle, 1913a: 98. *Pria mirmidon* Grouvelle, 1913c: 101 (India, Assam); Grouvelle, 1913a: 27; *Grouvellia picea*: Kirejtshuk, 1984: 173 (also North Vietnam; synonymy).

M a t e r i a l -
total 15, including lectotype (NMW - Kirejtshuk, 1984) of *G. picea* and lectotype (NMHN - Kirejtshuk, 1984) of *G. mirmidon* -
India: 1 (NMB) - „Kalimpong, 985 m, Mongbole, 12.IV.1984", „Darjeeling D., Ch.J. Rai"; 2 (NMB, ZISP) - „Suntuk (KPG), 900 m, 14.V.1986", „Darjeeling D., Ch.J. Rai";

N o t e s: This species is rather variable in shape of dorsal sclerites (head, mandibles, pronotum, elytra). In particular the studied specimens from Darjeeling are with well developed mandibles and comparatively wide pronota.

B i o n o m y: The imagines of this species have been captured mostly in mountain forest within April-May, probably at not so high elevations. According to the appearance and some labels this species is associated with blossoming plants, presumably with species of the genus *Pandanus* (Kirejtshuk, 1984).

D i s t r i b u t i o n: This species is recorded from eastern Himalayas [India, West Bengal (Kalimpong and Suntuk in Darjeeling District), Assam, Abor („Dibrugarh"): type locality of *G. mirmidon*] and Indochina [Myanmar (Burma), Mulmein: type locality of *G. picea*; Vietnam, Tu'o'ng Linh (near Phu Ly)].

IX. Subgenus *PROPETES (Propetes)* Reitter, 1875

=*Propetes* Reitter, 1875: 62, 64 (sep. 12, 14); Grouvelle, 1913a: 98; Kirejtshuk, 1997: 117. Type-species: *Epuraea nigripennis* Redtenbacher, 1867 (by monotypy).
=*Amystrops* Grouvelle, 1906a: 312; Grouvelle, 1913a: 98; Kirejtshuk, 1997: 117 . Type-species: *Amystrops Modiglianii* Grouvelle, 1906a: 312 (designated by Kirejtshuk, 1997: 117).
=*Platychorinus* Grouvelle, 1906b: 201, non *Platychorina* Grouvelle, 1905: 245; Grouvelle, 1913a: 144; Kirejtshuk, 1997: 118 . Type-species: *Platychorinus dilutus* Grouvelle, 1906b: 201 (by monotypy).
=*Platychoropsis* Grouvelle, 1912 (1913): 398, pro *Platychorinus* Grouvelle, 1906b; Grouvelle, 1913a: 144; Kirejtshuk, 1986b: 561; Kirejtshuk, 1997: 117.
=*Haptoncognathus* Gillogly, 1962: 160; Kirejtshuk, 1986b: 561; Kirejtshuk, 1997: 118. Type-species: *Haptoncognathus pacificus* Gillogly, 1962 (designated by Gillogly, 1962: 160).

D e s c r i p t i o n: Moderately large to small, robust, rather vaulted at sides; straw reddish to dark brownish with lighter appendages and sometimes rather darkened elytra (up to blackish); slightly and finely pubescent; dorsum with sparse or moderately diffuse and distinct punctures, interspaces between them with moderately conspicuous microreticulation to smooth. Head short, transverse, with rather large eyes composed of large or moderate facets and mouth parts strongly projecting

anteriorly. Antennae comparatively long with narrow 3-segmented club. Labrum with two long exposed lobes. Mentum bisinuate at fore edge, distinctly transverse. Last maxillary and labial palpomeres thin and subcylindrical (sometimes very long). Antennal grooves scarcely developed. Pronotum usually widest at base, its fore edge slightly emarginate and hind edge more or less bisinuate. Elytra rather short, with subtruncate, oblique or widely rounded apices, about as long as their combined width or somewhat longer. Epipleura upwardly sloped laterrally. Apex of prosternal process flat and more or less widened before subtruncate hind edge. Caudal marginal lines of both mid and hind coxal cavities undeveloped. Legs rather stout and short, tibiae strongly dilated to apex (usually with sexual dimorphism), outer edge of mid and hind tibiae with rows of moderate or thick setae, tarsomeres 1-3 narrow and slightly or moderately lobed (especially fore tarsomeres 1-3 in males), claws usually rather thin and long. Male anal sclerite rather convex and subacute at apex. Genitalia of both sexes slightly or moderately sclerotized.

D i a g n o s i s: *Propetes (Propetes)* sensu stricto and *P. (Mandipetes)* are distinguished according to the characters given in the above key (see also the diagnosis of the latter). This subgenus and *P. (Mandipetes)* is rather closely related to *Grouvellia* differning from the later by configuration of body dorsal sclerites (in particular pronotum), characters of mouth parts, larger eyes comprised of larger facets, more distinct punctation, comparatively shorter and stout legs with wider tibiae. This pair of related genera are partly similar to anthophagous *Mystronoma* Kirejtshuk, 1990c and *Ceratomedia* Kirejtshuk, 1990c from the Papuan and Australian regions, but differs from them in smaller, shorter, more robust and more convex body, with pronotal and elytral sides rather vaulted; prosternal process scarcely dorsoventrally curved along coxae; male anal sclerite rather convex and with subacute apex; last labial palpomeres rather elongate. Besides, the considered pair of related genera is characterized by some resemblance with the Afro-madagascarean endemic taxa of the tribe Epuraeinae with anthophagous mode of life (*Apria* Grouvelle, 1919; *Parepuraea* Jelinek, 1977; *Polinexa* Kirejtshuk, 1989b), but the former have rather shorter body with unexplanate pronotal and elytral sides, different configuration of ventral

sclerites of thorax, convex anal sclerite with subacute apex in males, and also rather generalized structure of genitalia of both sexes.

N o t e s: This genus consists of species with very variable structures and, therefore, there are many synonyms proposed for different representatives of this genus (used synonymy is explained in Kirejthsuk, 1997).

B i o n o m y: The recent study of most of described and many of unnamed species regarded in composition of *Propetes* sensu lato makes evident that most of them seem to be connected in their trophics with the *Pandanus* flowers. It can be supposed that the Epuraein group of species here united in the *Propetes* is in any sense analogous with the neotropical anthophagous *Mystrops* from the Nitidulinae and afro-Madagascarean Meligethinae connected with palm inflorescences. The indo-malayan species seem to occur mostly during spring and summer, although the imagines can be captured during the year round.

C o m p o s i t i o n and d i s t r i b u t i o n: The species united in this subgeneric taxon are mainly distributed in insular parts of the Indo-Malayan region [*P. (P.) aquilus* Kirejtshuk, 1997, *P. (P.) bicolor* (Grouvelle, 1910) and *P. (P.) modiglianii* (Grouvelle, 1906c)], including Papuan province [*P. (P.) novaguineesis* Kirejtshuk, 1990c], and also in the Polynesian [*P. (P.) minutus* (Gillogly, 1962); *P. (P.) nitidus* (Gillogly, 1962); *P. (P.) pacificus* (Gillogly, 1962) and *P. (P.) reticulatus* (Gillogly, 1962)], Australian [*P. (P.) brittoni* (Kirejtshuk, 1986b), *P. (P.) dilutus* (Grouvelle, 1906c); *P. (P.) puberulus* (Kirejtshuk, 1986b) and *P. (P.) subcalvus* (Kirejtshuk, 1986b)] and Novacaledonian [*P. (P.) dubius* (Grouvelle, 1903b)] regions, and only one species is recorded from Seychelles [*P. (P.) seychellensis* Kirejtshuk, 1997]. A preliminary attribution to this subgenus is also supposed for *Amystrops bakeri* Grouvelle, 1914a (Philippines), *A. camptoides* Grouvelle, 1916 (Philippines) and *A. monticola* Grouvelle, 1917 (Philippines). Finally, many species of this taxon collected on different islands (particularly in Philippines, Sulawesi and south from them) remain undescribed.

Propetes (Propetes) nigripennis (Redtenbacher, 1867), new combination

Figs. 471-478; Map 2, e

=*Epuraea nigripennis* Redtenbacher, 1867: 34[Sri Lanka (Ceylon); *Haptoncus remotus* Reitter, 1873: 178 [Myanmar (Burma)]; Grouvelle, 1913a: 98, new synonym; *Amystrops montana* Grouvelle, 1913c: 103 (India, Assam); Grouvelle, 1913a: 98, new synonym; *Amystrops epuraeiodes* Grouvelle, 1914b: 38 (Taiwan), new synonym; *Amystrops formosiana* Grouvelle, 1914b: 39 (Taiwan), new synonym; Hisamatsu, 1985: 180 (Japan, Ryukyu); *Propetes nigripennis*: Reitter, 1873: 178; Reitter, 1875a: 63; Grouvelle, 1913a: 98; *Propetes (Propetes) nigripennis*: Kirejtshuk, 1997:117:(lectotype designation).

Material -
total more than 334, including lectototype (NMW - Kirejtshuk, 1997: 117) and 3 paralectotypes (NMW - Kirejtshuk, 1997: 117) of *P. (P.) nigripennis*, lectotype (NMW) of *P. (P.) remotus*, 1 syntype (ZSI) of *P. (P.) montanus*, holotype (DEI) of *P. (P.) epuraeiodes* and holotype (DEI) of *P. (P.) formosianus* -
India: 1 **syntype** *Amystrops montana* (ZSI) - „Dibrugarh, N Assam, Abor Exped., 17-19.XI.11, Kemp", „on fruit of *Pandanus adoratissimus*"; 1 (ZMMU) - „*Epuraea lucida* Motsch. Ind. or."; 23 (CNC, SMNS, ZISP) - „Mysore State, Shimoga Dist., May 1974"; 32 (ZISP, ZSM) - „Poonmudi, Kerala St., V.1972";
Myanmar (Burma): **lectotype** *P. (P.) remotus*, female (NMW), here designated - „*Haptoncus remotus* Reitt., Mulmein" and a black quadrangle; 1 female (NMW) - „Schmidt, Göbel, 1884";
Sri Lanka: **lectotype** *P. (P.) nigripennis*, male (NMW), and 3 **paralectotypes** (NMW) - „Fidler, Ceyl., 860";
Vietnam: 163 (MSNG, SMNS,TMB, ZISP, ZML) - „Tuong Linh, near Phu ly, 24-28.V.1966, Gy. Topál", „575 from blossoming *Pandanus*";
Brunei: 1 (DEI) - „Brunei", Coll. Kraatz, Grouvelle det.", „*Amystrops modiglianii* Grouv.";
China: holotype of *Amystrops formosiana,* male (DEI) - „Kosempo, Formosa, Sauter 1912", „7. VI", „*Amystrops formosiana* Grouv." (written by Grouvelle);

holotype of *Amystrops epuraeoides,* female (DEI) - „Kosempo, Formosa, H. Sauter, VIII.09", „*Amystrops epuraeoides* ty. Grouv." (written by Grouvelle);
Malaysia: 1 (TMB) - „Pahang, Pulau Tioman, Kampung Juare", „at light in the village, 9-17.III.1995, O. Merkl";
Japan: 111 (FMNH, SMNS, ZISP) - „Ryukyu s.: Okinawa, Kanna, VIII-27-1945, E. Ray" (VII:16:1945), „at light";
Indonesia: 1 (DEI) - „Fruhstorfer, Java", „Coll. Kraatz, Grouvelle det.", „*Amystrops bicolor* Grouv."; 4 (CUR, ZIN) - „Lombok, Anpenam, 9-II-1980, Osella".

Variations: Length 1.5-3.2 mm; usually unicoloured light brownish and with a light shine; covered with moderately conspicuous subrecumbent yellowish grey hairs. This species is characterized by unicoloured reddish (nearly straw coloured) to brown and almost dull body with comparatively short antennae, stout legs and rather wide fore tarsi in male. Specimens from the northern continental part of the Indo-Malayan region (form „*remotus*") look somewhat distinct from specimens collected in South India and Sri Lanka (form „*nigripennis*"), being on the average smaller and less convex, with significantly more sparse punctation, alutaceous or microreticulated interspaces between punctures on dorsum and markedly more conspicuous but shorter pubescence. Perhaps these forms should be regarded as subspecies of the same species. However, more or less immature specimens from Lombok studied by the author have, except for very light coloration, rather denser and somewhat finer punctation than in Indian and Indochinese specimens. Finally, the large series from Okinawa, consisting of specimens with a little smaller, lighter and less convex body than that in specimens from South India, demonstrates a wide range of variability in size, coloration, punctation and sculpture.

Diagnosis: This species is the most variable and most widely distributed among congeners and it makes difficult identification of extremes of variability. Nevertheless, the pronotum more or less widest at base, sparse punctures on dorsum with somewhat smooth microreticulation are rather characteristic for *P. (P.) nigripennis*, although some species (mostly undescribed) from insular part of the Indo-Malayan

region are rather similar to the considered species (but the diagnosis of all the members of the subgenus will be possible to define after a revision of the group as a whole).

N o t e s: The synonymy of *P. (P.) nigripennis*, *P. (P.) remotus* and *P. (P.) montanus* is established due to the study of the type series, for which the mentioned named were proposed. Taking into consideration the variability of species from this group, largely known to the author, but still undescribed, it seems reasonable to assume a wide distribution of the present species including all the specimens mentioned above (in particular a large series from Japan). In this connection, a proposed synonymy of *P. (P.) epuraeoides, P. (P.) formosianus* and *P. (P.) nigripennis* becomes also quite evident.

The holotype of *Amystrops formosiana* is rather typical in body shape and aedeagal structure, but with a little darker of general coloration. The holotype of *Amystrops epuraeoides* is one of smallest specimens (length 2.2, breadth 1.4 mm) with very light coloration and abdomen almost completely concealed under elytra.

B i o n o m y: This species has been collected in lowland rainforest and along banks of rivers within February-May, July-August and in November. Like other species of this group, *P. (P.) nigripennis* is associated with blossoming *Pandanus*, where its larval development seems to happen, however it is possible to expect feeding and breeding of this species on fruits of plants from this genus.

D i s t r i b u t i o n: This variable species is poorly represented in museum collections, but it has the widest range among congeners, which seems to cover the most part of the Indo-Malayan region and eastern part of East Chinese (Palaearchearctic) province: India, Karnataka (Mysore in Shimoga District), Kerala („Poonmudi"), Assam [Abor, „Dibrugarh": type locality of *P. (P.) montanus*] Sri Lanka [including type locality of *P. (P.) nigripennis* (without a detailed indication)]; Myanmar (Burma) [including Mulmein: type locality of *P. (P.) remotus* and „Göbel"]; Vietnam, Tu'o'ng Linh (near Phu Ly); China (Taiwan) [type locality of *P. (P.) epuraeiodes* and *P. (P.) formosianus*]; Malaysia, Pahang (Pulau Tioman, Kampung Juare); Japan, Ryukyu; Indonesia, Lombok (Anpenam).

X. Subgenus *Propetes (Mandipetes)* Kirejtshuk, 1997

=*Propetes (Mandipetes)* Kirejtshuk, 1997: 122. Type-species: *Propetes (Mandipetes) longipes* Kirejtshuk, 1997.

D i a g n o s i s: This subgenus is similar and closely related to the preceding taxon (see above - diagnosis of it). The representatives of the former differs from those of the latter mainly in shapes of mouth parts (mandibles, mentum, and especially maxillae, maxillary and labial palpomeres). Mandibular apex of *P. (Mandipetes)* is with two long teeth; mentum is rather enlarged, subquadrangular and longest at sides; maxillary lobe is very narrow and long with setae posteriorly orientated along its inner edge, and palpus is very long, with ultimate and penultimate segments dilated at apices and with setae posteriorly orientated along its inner edge. Besides, body of *P. (M.) intritus* is bright reddish with somewhat darkened pronotum, thoracic sterna and 1-3 ventrites, with chestnut brown elytra, with a particularly bright shine; its dorsum is covered with extremely fine, scarcely visible, very short hairs, pronotal and elytral sides are without distinct ciliae; sides of pronotum are similarly narrowed anteriorly and posteriorly, hind corners of it are with angular blunt apices and fore edge of it is with an obsolete carina.

N o t e s: The species of this subgenus like the other congeners seem to be anthophagous.

C o m p o s i t i o n and d i s t r i b u t i o n: There are described only *P. (M.) longipes* from Philippines and *P. (M.) intritus* from North Vietnam.

Propetes (Mandipetes) intritus Kirejtshuk, 1997
Figs. 479-485; Map 1, e

=*Propetes (Mandipetes) intritus* Kirejtshuk, 1997: 123 (North Vietnam).

Material -
holotype (ZISP - Kirejtshuk, 1997).

Description: Length with mandibles 2.8 (and without 2.5), breadth 1.5, height 0.7 mm; moderately convex dorsally and ventrally; bright reddish with somewhat darkened pronotum, thoracic sterna and 1-3 ventrites, and with chestnut brown elytra; body with a particularly bright shine; dorsum with extremely fine, scarcely visible, very short hairs; ventral surface with slightly conspicuous yellowish hairs, somewhat shorter than the distance between their roots on ventrites. Head, pronotal, scutellar and elytral surface with distinct punctures about 1.5 times as large as eye facets, interspaces between them 2.0-3.5 puncture diameters (a little narrower on elytra), completely smooth. Head about 1.5 times shorter than the distance between eyes. Mandibles with a sharp process before acute apices. Labrum with a deep and wide excision between lobes. Antennae not longer than head broad, their club very narrow and composing about 2/7 total antennal length. Pronotum with a narrow border along its perimeter (obsolete in the middle of fore edge), excavate fore and slightly emarginate hind edges. Elytra with arcuate lateral and oblique apical edges, their sides steeply sloping laterally. Pygidium with a truncate apex, from under which a subangular apex of anal sclerite exposed. Terminal segment of maxillary palpi very long with curved apex and a row of setae along its inner side. Terminal segment of labial palpi rather long and thin, though of usual structure. Prosternum flattened, its process scarcely medially curved and subparallel at sides, with vertically abrupt apex, a little narrower than antennal club. Fore tarsi 2/3 as wide as fore tibiae, mid and hind ones much narrower, claws moderately long and toothed at base. Tegmen moderately and penis trunk weakly sclerotized.

Diagnosis: This new species differs from the other member of the subgenus [*P. (M.) longipes* Kirejtshuk, 1997] apart from aedeagal

structures, in the smaller body, wide base of male mandibles with a row of setae along basal part, narrower and compact antennal club comprising 2/7 total antennal length, distance between mid coxae subequal with width of antennal club, tibiae about as long as prosternum and its process combined and in toothed tarsal claws. On the other hand, *P. (M.) intritus* has an appearance somewhat similar to that in *P. (P.) nigripennis* and some other Indo-Malayan species from *P. (Propetes)* sensu stricto. However, the body of this species is extremely shiny and with strongly reduced pubescence, distinctive pronotum arcuately narrowed as anteriorly as posteriorly, comparatively narrow antennal club, structure of male maxillary palpi, longer and narrower labial palpi, large mentum, narrower legs and toothed tarsal claws.

Bionomy: The holotype of this species has been collected in lowland forest in February.

Distribution: This species is known only from its type locality: Vietnam, Tam Dao.

XI. Subgenus *Tetrisus (Trimenus)* Murray, 1864, new combination

=*Tetrisus* Murray, 1864: 404; Grouvelle, 1908: 327, 338; Grouvelle, 1913a: 94. Type-species: *Tetrisus cholevoides* Murray, 1864: 404 (here designated).
=*Trimenus* Murray, 1864: 405; Grouvelle, 1908: 340, 343; Grouvelle, 1913a: 95; Kirejtshuk, 1984: 173-176; Kirejtshuk, 1992: 158. Type-species: *Trimenus adpressus* Murray, 1864: 406 (here designated).

Description: Body of moderate size, rather elongate and almost parallelsided or sometimes oval, rather flattened; redish to dark brown, sometimes with infuscate pronotal and elytral discs; dorsum with dense and distinct punctures, moderately pubescent. Head strongly transverse and almost flattened dorsally, with eyes moderately or largely faceted, moderately or strongly projecting labrum and mandibles, weak

and strongly convergent antennal grooves at sides of mentum, last labial palpomere widened to apex. Antennae not longer than head width, with elongate oval club. Pronotum not narrowed or slightly narrowed at base, with emarginate or excised fore edge, very narrowly explanate sides and distinctly projecting hind corners. Elytra subparallelsided and usually with very narrowly or moderately explanate sides and truncate apices. Prosternal process moderately narrow and slightly curved along coxae. Metasternum with shallowly emarginate to angularly excised hind edge. Legs moderately narrow, sometimes with sexual secondary characters in shape and structure of tibiae.

D i a g n o s i s: The taxa *Tetrisus* and *Trimenus* were both proposed in the Murray's monograph (1864), where the first was regarded as a group close to *Carpophilus* (Carpophilinae) but the second approached *Epuraea* (Epuraeinae). However, both should be treated as members of the latter subfamily because their appearance and structural features [including the characters of male genitalia) resemble those of typical representatives of this group, except the abdominal apex which in many (but not all) species of the subgenus *Tetrisus (Trimenus)* is a little more exposed from under the elytral apices]. Indeed, the species described in both taxa are rather similar and, therefore, it seems to be reasonable to unite them in one genus. Although it is possible to find some insignificant differences between the closest species of *Trimenus* sensu stricto and type species of *Tetrisus (Tetrisus) cholevoides* Murray, 1864 - figs. 517 after study of holotype, male (NHL) - „Borneo", „68-106", „*cholevoides*"; and 2 females (NHL, ZIN) - „BRUNEI: E 115°7' N 4°34', Kuala Belalong F.S.C., Dipterocarp forest, BM(NH), 1991.173", „Fog 23: Site 12.3, 260 m alt., 10.iii.92, N.Mawdsley, NM346", „tray 3". Besides the type species, one unpublished species from New Guinea be regarded as a second member of the subgenus *Tetrisus (Tetrisus)* sensu stricto.

Differences between the two subgenera under consideration can be formalized as:

- *Tetrisus (Tetrisus)*: fairly well developed, long, slightly convergent behind mentum and outlined antennal grooves, roof-like prosternum with a strongly projecting and unflattened process covering considerable part of mesostenum, fore tarsi with tarsomeres 1-3 simple;
- *Tetrisus (Trimenus)*: antennal grooves weakly developed, short and strongly convergent behind mentum, prosternum normally convex along the middle with a moderately projecting process, not flattened and covering only the anterior part of mesosternum, fore tarsi with tarsomeres 1-3 more or less lobed.

Tetrisus (Tetrisus) cholevoides is characterized by fine and extremely dense punctation of body surface [almost as that in *T. (Trimenus) hydroporoides*], comparatively long labral lobes exposed from under the fore edge of frons, rather long 7th abdominal segment and invisible tarsal empodium. The papuan *Baloghmena* Kirejtshk, 1987a differs from the both considerd subgenera in much longer antennae (longer than head width, developed basal border on pronotum, prosternal process strongly curved along coxae, subcylindrical labial last palpomeres, very narrow tibiae and tarsomeres 1-3 of all legs distinctly lobed. *Tritesus transversillis* Heller, 1916 in contast to the members of the both considered subgenera has not projecting hind pronotal corners and tarsomeres 1-3 of all legs distinctly lobed.

N o t e s: The type-species for both *Tetrisus* and *Trimenus* were taken from the first representatives described with the proposition of these taxa.

B i o n o m y: Bionomic features of species from this genus remain poorly known, but at least imagines of the type species of subgenus *Tetrisus (Trimenus)* are usual during the year round under bark of fallen trees in most types of forests in Vietnam.

C o m p o s i t i o n and d i s t r i b u t i o n: The genus *Tetrisus* sensu lato should include the alone species of the subgenus *Tetrisus (Tetrisus)* sensu stricto and the species mentioned in the key below restricted in their distribution mainly by the Indo-Malayan region (including Papuan province) also coming to Far East of the Palaearctic and northern part of the Australian regions. „*Trimenus piceus*" Grouvelle, 1897 (="*Trimenus dubius*": Kirejtshuk, 1984) remains unknown to the writter (see notes to *T. (T.) parallelopipedus*) and „*Trimenus longicollis*"

Grouvelle, 1903b should be presumably regarded as a member of *Psilonitidula* Heller, 1916 (Kirejtshuk, inedit.).

Key to species of subgenus *Tetrisus (Trimenus)* from the Himalayas and northern Indochina

1 a. Pronotum almost parallelsided in basal half before right hind corners; elytra with subparallel sides and truncate apices; dorsum with rather dense, distinct and uniform oval punctures; last segment of labial palpi strongly widened to truncate apex; body usually unicoloured straw reddish, but sometimes partly or entirely darkened (to almost black); eyes consists of rather large facets, not smaller than half of antennomeres 6 or 7. Male: mid tibia with a curved subapical excision along inner edge to almost straight in smallest specimens. 3.2-6.0 mm. Figs. 511-516. India, Uttar Pradesh, Darjeeling, West Bengal and southern states; Myanmar (Burma); Tailand; Laos; Vietnam; Malaysia; other south parts of Indo-Malayan region; and also Japan; East China; Taiwan; New Guinea; North Australia (Queensland) ..... *T. (T.) parallelopipedus* (Motschulsky, 1863)

1 b. Pronotum narrowed to hind corners; eyes consists of facets of moderate size, about 1/4-1/3 as large as antennomeres 6 or 7 2

2 (1) a. Dorsal surface with indistinct shallow and comparatively sparse punctures, partly rasp-like (in particular on elytra), interspaces between punctures more or less dull; pronotal sides subexplanate; last segment of labial palpi strongly widened at apex; prosternal apex bluntly pointed at apex, about as wide as antennal club; body dark reddish brown with pronotal and elytral discs blackish, antennal club and fore legs lighter. Male: elytral apices separately widely rounded. Female: elytral apices acuminate. 4.7-5.3 mm. Figs. 486-490. Nepal; North Vietnam ..... *T. (T.) accomodus* Kirejtshuk, 1984

2 (1) b. Dorsal surface more or less distinctly punctured, with smooth and shiny interspaces; last segment of labial palpi less widened at apex; prosternal apex widely rounded at apex, markedly wider than antennal club; elytral apices truncate or subtruncate, without a trace of sexual dimorphism 3

3 (2) a. Dorsal surface with strongly dense and comparatively small, rather deep punctures (slightly larger than eye facets with interspaces between then 1/5-1/3 puncture diameter), very short and slightly conspicuous pubescence. Male: all tibiae simple 4

3 (2) b. Dorsal surface with larger and sparser punctures (more than twice as wide as eye facets, interspaces not less than half a puncture diameter, shiny), moderately long and rather conspicuous pubescence; pronotum with explanate or subexplanate sides. Male: all or, at least, fore and mid tibiae with characters of sexual dimorphism 5

4 (3) a. Labral lobes almost semicircular and insertion between them much wider; pronotum evenly convex with unexplanate sides; elytra less arcuate at sides and distinctly longer than their combined width; last labial palpomere with apex almost as wide as its length; underside densely and finely, but distinctly punctured; unicoloured straw reddish to partly or entirely blackish with lighter appendages; shiny. Male: all tibiae simple; hypopygidium bisinuate. 2.5-4.7 mm. Figs. 506-510. India, Uttar Pradesh, Kerala; Myanmar (Burma); Vietnam; Malaysia or Indonesia, Kalimantan; Indonesia, Sumatra, Mentawai; Philippines ..... *T. (T.) hydroporoides* Murray, 1864

4 (3) b. Labral lobes much longer and narrower and insertion between them very narrow; pronotum somewhat flattened with more or less distinctly explanate sides; elytra more arcuate at sides and about as longer as their combined width; last labial palpomere with apex about twice as wide as its length; underside densely and finely, but indistinctly and shallowly punctured; unicoloured straw reddish and shiny. 2.5-2.9 mm. Figs. 670-674. Malaysia, Kalimantan. ..... *T. (T.) erugatus* (Gillogly, 1982)

5 (3) **a.** Body unicoloured dark brown or rarely reddish (to straw coloured); pronotum more widely explanate (nearly as widely explanate as width of antennal scape). Male: fore and mid strongly, but hind tibiae slightly curved along inner edge; fore tibiae with outer corner scarcely projecting; hypopygidium widely rounded at apex. Figs. 491-498. 4.0-5.3 mm. India, Darjeeling, Tamil Nadu; Nepal .... *T. (T.) curvipes* Grouvelle, 1908

5 (3) b. Appearance (including coloration) as in *T. (T.) hydroporoides*, but with different punctation on dorsum and narrowly explanate pronotal sides. Male: Fore and mid tibiae slightly curved along inner edge, but hind ones almost simple; fore tibiae with strongly projecting outer subapical process; hypopygidium subtruncate at apex. Figs. 499-505. 2.5-4.5 mm. India, Darjeeling; Myanmar (Burma) ..... *T. (T.) epuraeioides* Grouvelle, 1892

Tetrisus (Trimenus) accomodus Kirejtshuk, 1984, **new combination**

Figs. 486-490; Map 13, d

=*Trimenus accomodus* Kirejtshuk, 1984: 173, 176 (North Vietnam).

M a t e r i a l -
total 3, including holotype (ZISP - Kirejtshuk, 1984) and 1 paratype (ZISP - Kirejtshuk, 1984) -
Nepal: 1 female (BMNH) - „5800', Kathmandu Distr., Godawari, 22.VI.1983", „At MV light", „M.J.D. Brendell".

D i a g n o s i s: This species is well characterized by the peculiar punctation and sculpture, widely rounded elytral apices in males and acuminate ones in females, especially wide apices of last segments of labial palpi, rather curved hind femur and structure of aedeagus. It can be easily diagnosed after the above key.

B i o n o m y: The imagines of this species have been collected in mountain forest at elevations about 2000 m above sea level in June and August.

D i s t r i b u t i o n: This species is known from Nepal, Godawari (Kathmandu valley) and Vietnam, Sa Pa (near Lao Cai).

Tetrisus (Trimenus) curvipes Grouvelle, 1908, **new combination**

Figs. 491-498; Map 13, e

=*Tetrisus curvipes* Grouvelle, 1908: 338 (South India); Grouvelle, 1913a: 94; *Trimenus confusus* Kirejtshuk, 1984: 174, 176 (India, Darjeeling), new synonym.

M a t e r i a l -
total 7, including lectotype (BMNH) and 1 paralectotype (BMNH) of *T. (T.) curvipes*, holotype (ZMB - Kirejtshuk, 1984) of *T. (T.) confusus* -
India: **lectotype** *T. (T.) curvipes*, male (BMNH), here designated and 1 **paralectotype**, male (BMNH) - „Nilgiri Hills, H.L. Andrewes";
Nepal: 3 (SMNS, ZISP) - „306, Kathmandu Distr., Sheopuri Mt., *Quercus semecarpifolia* forest, 2100-2300 m, 25 June 1988, Martens & Schawaller"; 1 (ZISP) - „328, Panchthar Distr. Paniporua, 2300 m, mixed broadleaved forest, 16-20 April 1988, J. Martens & W. Schawaller".

Addition to d e s c r i p t i o n (Grouvelle, 1908; Kirejtshuk 1984a): Length 4.0-5.3, breadth 2.1-2.3 mm. Body can vary from almost reddish to unicoloured dark chestnut, from nearly dull to rather shiny, although specimens from India are almost black.

D i a g n o s i s: This species can be easily diagnosed after the above key. Among other features its secondary sexual characters are expressed not only in characteristic differences of the abdominal apex from above, but also in the hypopygidial apex shallowly emarginate, shape

and structure of each tibia. The male genitalia are extremely distinctive from those of any congener. Moreover, it is quite remarkable that both the tegmen and penis bear some resemblance to the structural types of these organs which are usually characteristic of the subfamilies Amphicrossinae and Carpophilinae.

N o t e s: This species was described by two specimens from southern India and from a unique female from northern India. Study of the specimens mentioned above increases our knowledge about the distribution of this species, the male features and structural variations, which allow me to synonymize the name *T. (T.) confusus*.

B i o n o m y: This species has been collected in mountain mixed broadleaved forest in April and June.

D i s t r i b u t i o n: This species is known from the Himalayan and Indian provinces: India, [Nilgiri Hills: type locality of *T. (T.) curvipes*], West Bengal [Darjeeling: type locality of *T. (T.) confusus*]; Nepal, Sheopuri Mts. (Kathmandu valley), Paniporua (Panchthar District).

Tetrisus (Trimenus) epuraeoides Grouvelle, 1892, **new combination**

Figs. 499-505; Map 15, a

=*Tetrisus epuraeoides* Grouvelle, 1892a: 839 [Myanmar (Burma)]; Grouvelle, 1913a: 94.

M a t e r i a l -
total 5, including lectotype (MSNG) and 3 paralectotypes (MSNG, ZISP) -
Myanmar (Burma): **lectotype**, male, here designated (MSNG), 3 **paralectotypes** (MSNG, ZISP) *T (T.) epuraeoides* (ZISP) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88", „*Trimenus epuraeoides* ty. Grouv." (written by A. Grouvelle) and „*Tetrisus epuraeoides* sp.n.";
India: 1 (NMB) - „Sindepung, 23.IV.1987", „Darjeeling, Bhakta B.".

Addition to d e s c r i p t i o n (Grouvelle, 1892a): Length 2.5-4.5 mm. Dorsum brownish, but fore part of head, pronotal edge and scutellar parts of elytra as well as appendages and underside reddish; dorsum rather shiny and with fine and moderately conspicuous greyish hairs, 1.5 times longer than distance between their insertions. Head, pronotum and elytra with distinct punctures, about twice as large as eye facets, interspaces between them narrower or subequal to a puncture diameter, smooth on head, pronotum and elytral discs, finely and soothly microreticulated on lateral and apical parts of elytra. Pygidium and hypopygidium truncate at apex. Fore tibiae in males rather curved along inner edge and with a strong subapical outer process. Mid tibiae in males with dilated inner edge. Aedeagus moderately sclerotized.

D i a g n o s i s: All studied specimens have very similar coloration to that in the typical form of *T. (T.) hydroporoides* described by Murray (1864), with darkened head, medial stripe on pronotum and lateral and apical parts of elytra. This species, apart from the characteristic male genitalia, has clear differences from the following species and *T. (T.) curvipes* only in the characters mentioned in the above key. Besides, *T (T.) epuraeoides* is at the average smaller than both *T. (T.) curvipes* and *T. (T.) hydroporoides* and with sparser punctation on dorsum.

N o t e s: Some type specimens of this species belong to *T. (T.) hydroporoides* (see below).

B i o n o m y: This species has been collected in mountain (probably in forest) at elevations about 1000 m above sea level in April and within May-December (more probably in spring).

D i s t r i b u t i o n: This species is recorded from India, West Bengal (Darjeeling, Sindepung) and Myanmar (Burma), Karen State („Carin Chebá": type locality).

Tetrisus (Trimenus) erugatus (Gillogly, 1982), **new combination**

Figs. 670-674; Map 15, b

=*Haptoncus erugatus* Gillogly, 1982: 282, 290 (Malaysia, Borneo; presumably holotype and 2 paratype in BPBM).

Material -
Malaysia: 1 **paratype**, female (BPBM) - „Borneo (Brit. N), Sandakan Bay, (SW) Sapagaya, Lumber Camp, 2-20 m, XI-1-57".

Redescription of female (paratype): Length 2.85, breadth 1.4, height 0.7 mm. Slightly convex dorsally and ventraly; reddish, shiny; rather densely covered with fine, short and slightly conspicuous hairs, somewhat longer than distance between their insertions; underside with very short and very fine, hardly conspicuous pubescence. Head and pronotal surface with more or less distinct punctures, about as large as eye facets, interspaces between them less than a puncture diameter, rather smooth. Elytral surface somewhat similar to that on head and pronotum, but with smaller punctures and interspaces between them narrower than half a puncture diameter. Surface of pygidium about as on elytra, but punctures smaller and interspaces between them alutaceous. Ventral surface as on pygidium, although punctures smaller and shallower, but interspaces contrastingly alutaceous, almost with distinct or smooth microreticulation. Head nearly as *T. (T.) hydroporoides*, but labrum with narrower and longer lobes. Antennae a little longer than beadth of head, their club comparatively large, a third of total antennal length. Pronotum somewhat flattened on disk and with widely arcuate sides, which are clearly explanate (as explanate as width of antennomere 2). Elytra with gently sloping sides and narrowly explanate sides. Pygidium widely rounded at apex. Prosternal process flattened and not curved along fore coxae. Distance between mid coxae 1.5 times and that between hind ones 2.0 times broader than that between fore coxae. Metasternum somewhat convex, with distinct medial suture and emarginate hind edge between coxae. Ventrite 1 somewhat shorter than hypopygidium. All tibiae rather narrow. Femora 2.0-2.5 times as wide as tibiae. Fore tarsi narrowly lobed, all tarsomeres of mid and hind tarsi, claws simple and narrow.

Diagnosis: This species is very similar to *T. (T.) hydroporoides*, differing from it by only the characters mentioned in the above key. Besides, in comparison with other members of the subgenus body of *T. (T.) erugatus* looks more oval with distinctly and comparatively widely explanate pronotal and elytral sides.

Notes: This species is an evident member of the subgenus *T. (Trimenus)* sensu stricto. In contrast to the original description, the pubescence of the studied specimen is short, dense and slightly conspicuous.

Bionomy: This species has been collected in lowland forest in November.

Distribution: This species is known only from Malaysia: Kalimantan [Tawau (Quin Hill): type locality, Sandakan Bay (south western of Sapagaya)].

Tetrisus (Trimenus) hydroporoides Murray, 1864, **new combination**

Figs. 506-510; Map 15, c

=*Tetrisus hydroporoides* Murray, 1864: 405 (Borneo; syntypes presumably in BMNH); *Tetrisus epuraeoides* Grouvelle, 1892a: 839, partim (Burma).

Material -
total 59, including 8 paralectotypes (IRSN, MSNG, ZISP) of *T. (T.) epuraeoides* -
Myanmar (**Burma**): 8 **paralectotypes** *T. (T.) epuraeoides* (IRSN, MSNG, ZISP) - „Carin Chebá, 900-1100 m, L. Fea, V-XII.88", „*Trimenus epuraeoides* ty. Grouv." (written by A. Grouvelle) and „*Tetrisus epuraeoides* sp.n.";

India: 3 (BMNH, ZISP) - „W. Almora Divn., Kumaon, U.P., July 1910, H.G.C.", „*Pinus longifolia*", „H.G. Champion"; 35 (BMNH, ZISP) - „Ranikhet, U.P., 6-8.'16', H.G.C.", „H.G. Champion"; 1 (BMNH) - „Ranikhet, Kumaon, H.G.C.", „H.G. Champion"; 1 (BMNH) - „Himalaya: Chaubattia, Almora District, 6-7000 ft, S.R. Archer, 1920-175"; 1 (SMNS) - „Kerala, Thekkady, Peryar-W.L.S., 2.9.1989, A. Riedel;
Vietnam: 1 (ZISP) - „Dac Lac, Buon-Me-Thuot, 24-26.06.1989";
Indonesia: 1 (TMB) - „Sumatra, St. Rambé, XII.90-III.91, E. Modigliani"; 9 (ZMUC, ZISP) - „Mentawei, Si Oban, IV-VIII.94, Modigliani";
Philippines: 5 (ZISP, ZMB) - „Port Banga bei Capin, Insel Pangay, leg. Böttcher, 2.1.1915"; 2 (ZISP, ZMB) - „Philippinen, leg. Böttcher".

Comments on descriptions (Muray, 1864; Grouvelle, 1892a): Usually bright reddish, with darkened head base, medial stripe on pronotum, lateral and apical parts, to unicoloured pale reddish; covered with very short and fine, slightly conspicuous hairs, about 1.5 times longer than distance between their insertions. Dorsum with very dense and very small oval punctures on head and pronotum, but elytral punctures more or less elongate and very narrow interspaces between them rather smooth and shiny. Last labial palpomere subtriangular and with apex slightly narrower than its length. Pygidium truncate and hypopygidium bisinuate at apex. All tibiae narrow and straight, without characters of sexual dimorphism.

Variations: The studied female from Vietnam is comparatively smaller, with shorter and more compact antennal club and shorter last segment of labial palpi. This species is rather variable in coloration: even in Philippines some specimens are all unicoloured light - almost straw coloured (specimens from Port Banga), and others with almost completely black body, including 2 specimens from Philippines collected by Böttcher. The female from Kerala (SMNS) is entirely black. All studied specimens from Mentawai are very dark with somewhat lighter ventral surface and appendages. However, the most common form of this species with darkened medial part of pronotum and elytra was described as „*Tetrisus hydroporoides*" by Murray (1864) and later as „*Tetrisus epuraeoides*" by Grouvelle (1892).

Diagnosis: This species is well characterized by extremely dense punctation on dorsum, undeveloped secondary sexual dimorphism in tibial structure and quite distinctive aedeagus (see the above key). Apart from these features, it usually has darkened medial stripe on pronotum, subsutural and subapical areas of elytra.

Bionomy: This species has been collected in forest of different types, frequently at elevations about 1000 m above sea level in January and within March-August. Besides, it was found on *Pinus longifolia*.

Distribution: This species is known from Myanmar (Burma), Karen State („Carin Chebá"); India, Uttar Pradesh (Kumaon near Ranikhet and in western part of Almora Division), Kerala (Thekkady, Peryar); Vietnam, Dac Lac (Buôn-Mê-Thuot); Indonesia, Kalimantan (type locality, without any further geographical indication), Sumatra („St. Rambé"), Mentawai (Si Oban); Philippines („Pangay", „Port Banga bei Capin" or Banggi on Kalimantan).

Tetrisus (Trimenus) parallelopipedus (Motschulsky, 1863), **new combination**

Figs. 511-516; Map 15, d

=*Epuraea parallelopipeda* Motschulsky, 1863: 438 (Ceylon, Nura-Ellia); Reitter, 1873: 29; *Trimenus adpressus* Murray, 1864: 406 (Borneo, Aru, Dorey, Morty, Waigiou, Amboina, Macassar etc.; most syntypes presumably in BMNH); Grouvelle, 1900: 263 (Sumatra); Grouvelle, 1908: 343 (also India and Indochina); Grouvelle, 1913a: 95; Grouvelle, 1914b: 38 (Taiwan); Nakane, 1959: 56 (Japan); Gillogly, 1969: 250 (Philippines, Bismark Islands); Hisamatsu, 1985: 184; *Trimenus angustatus* Murray, 1864: 407 (Macassar, Morty; syntypes presumably in BMNH); *Trimenus parallelopipedus*: Grouvelle, 1908: 343; Grouvelle, 1913a: 95; Kirejtshuk, 1984: 176 (notes on types and synonymy); Kirejtshuk, 1992: 158 [Japan, East China (including Taiwan), Indo-Malayan region, New Guinea, northern Australia (Queensland); syno-

nymy]; *Trimenus adpressus opacipennis* Nakane, 1959: (Japan); Kirejtshuk, 1992: 158 (synonymy).

Material -
total over than 100, including holotype (ZMMU - Kirejtshuk, 1984) of *T. (T.) parallelopipedus* -
India: 1 (NMB) - „Mirik, 1500 m, Algherra, 21.IV.1987", „Darjeeling D., Ch.J. Rai"; 1 (BMNH) - „Kheri Forest, U.P., Jan. 1916, H.G.C.", „H.G. Champion";
Vietnam: 10 (ZISP) - „gory (mountains) 50 km N O Thai Nguyên, 300 m, 8.2.1963, O.Kabakov" ; 16 (ZISP, ZML) - „SO Son Duong, 300 m, 14.1.1962, O. Kabakov" (24.II.1962); 1 (NMW) - „N-Vietnam, 20-30.IV., Hanoi, at light, E. Jéndek, 1991";
Malaysia: 2 (TMB) - „Pahang, Cameron Highlands, 2 km S Tanah Rata on Tapah Road", „montane (mountain) rainforest, at light, 29.III.1995, O. Merkl & I. Szikossy";
Sri Lanka: 6 (NMW) - „Paradeniya", „18/I.02, Dr Uzel", „Frisches Holz";
Indonesia: 3 (TMB, ZISP) „Kalimantan, Barat, Bayas, logging area above Samanja, 1°13'S, 110°6'E", „clearing of landland, rainforest, at light, 27.VII.1993, O. Merkl";
New Guinea: 1 (TMB) - „Maing, ca. 15 mil. of Lae, 13-14.IV.1965", „J. Balogh et J.J. Szent-Iványi";
also about 50 from Sarawak (CNC), Philippines (ZMUC), Bismark Islands (ZMUC), New Guinea (CNC), Australia (Queensland - ANIC, NRS, ZISP and others).

Variations: Smallest males with inner edge of mid tibiae less excised, but one specimen from Thai Nguyên (ZISP) and specimens from Bayas, Kalimantan (TMB, ZISP) are rather small, with comparatively coarse and distinct dorsal punctation and with completely straight inner edge of male mid tibiae. Apart from the mentioned types of variability, body coloration can also strongly vary (up to almost blackish).

Diagnosis: This species is easily diagnosed after the above key, it concerns the shape of pronotum, large eye facets, peculiar secondary dimorphism in legs and aedeagal structure. Besides, this species has a

comparatively sparse and coarse punctation on dorsum (punctures subequal or only slightly smaller than eye facets and separated by a punctu- re diameter or somewhat less) and conspicuously microreticulated or at least alutaceous interspaces between punctures.

Notes: „*Trimenus piceus*" Grouvelle, 1897 (="*Trimenus dubius*": Kirejtshuk, 1984) remains unknown to the author, however, this name may be a synonym of the *T. (T.) parallelopipedus* proposed to the dark extreme of the latter.

Bionomy: The imagines of this species are rather usual during the year round under bark of fallen trees and on arboreal fungi at various elevations above sea level, in most forest types in Vietnam, including lowland rainforest. Nevertheless on the territory under consideration this species has been more often collected during the first half of the year, mostly in spring.

Distribution: This species has the widest range among congeners, which covers nearly the Indo-Malayan region as a whole (including Papuan province), East Chinese (Palaearchearctic) province [Japan, including Tokara islands: type locality of *T. (T.) adpressus* subspecies *opacipennis*; eastern and southern China, including Taiwan] and northern part of Australia (Queensland). On the territory under consideration and adjacent ones, this species is recorded from: India, Uttar Pradesh (Kheri Forest), West Bengal [Darjeeling (Mirik, Algherra)], Maharashtra, Orissa, Karnataka, Tamil Nadu; Myanmar (Burma), Karen State; Vietnam, Thai Nguyên, So'n Du'o'ng, Hanoi and many others; Sri Lanka, Nura-Ellia [type locality of *T. (T.) parallelopipedus*], „Paradeniya"; Malaysia, Malacca peninsula [Pahang (Cameron Highlands near Tanah Rata)], Sarawak and so on; Indonesia, Sumatra, Kalimantan, Sulawesi, Barat-Daya, Aru, New Guinea (Manokwari) and so on; Philippines; Papua New Guinea, including Bismark Islands).

Tribe Taenioncini new tribe

Type-genus: *Taenioncus* Kirejtshuk, 1984.

D e s c r i p t i o n: Body elongate, nearly parallelsided, moderately or rather convex above and below. Head short with moderate or large eyes and 11-segmented antennae with 3-segmented compact club. Labrum moderately projecting forwards and deeply excised medially. Mandibles normally raised. Pronotal and elytral sides steeply sloping (but pronotal sides of *Raspinotus* and *Carpocryraea* new genus gently sloping) strongly narrowly explanate or unexplanate. Pronotum subquadrangular, distinctly bordered along entire perimeter or unbordered along base, its fore corners not or slightly projecting, hind ones never projecting. Elytra with truncate apices leaving 1-2 more or less sclerotized tergites before pygidium uncovered. Subacute apex of anal sclerite of male projecting moderately far from truncate pygidial apex. Female pygidium with rounded or angular apex. Prosternal process medially curved along coxae and approaching the moderately excavated surface of mesosternum. All pairs of coxae subequally approximated, with moderately narrow distance between them or hind ones further apart. Metasternum with a developed medial line, hind edge between coxae angularly excised. Caudal marginal line behind mid coxal cavities usually arcuately deviating from hind edge of cavity near its lateral end. Caudal marginal line of hind coxal cavities not developed. Hypopygidium with rounded apex and characters of sexual dimorphism (never excised at middle of hind edge). Epipleura elevated to lateral edges. Legs moderately long and stout, with simple segments; fore tibiae distinctly and finely crenulate along outer edges; mid and hind ones with two (not always regular) rows of more or less stout spinae; tarsomeres 1-3 lobed. Aedeagus elongate with comparative length of tegmen and penis trunk; tegmen with extremely deep medial excision. Ovipositor variable in structure.

D i a g n o s i s: Species of the Taenioncini new tribe have some resemblance to members of the Carpophilinae because of the external appearance of their abdominal apex with heavily sclerotized 1-2 apical tergites uncovered by truncate elytral apices. It was supposed that *Taenioncus* (Kirejtshuk, 1984) should be treated as an archaic member of the Carpophilinae retaining *Epuraea*-like aedeagal stuctures. At present 4 generic taxa of the considered group are known (*Taenioncus*, *Raspinotus*, *Carpocryraea* new genus and *Taeniolinus* new genus), and all of them share very similar abdominal apex in both sexes and rather similar aedeagus. However, these taxa lack definite diagnostic characters of the Carpophilinae, except 2-3 apical tergites uncovered by elytra in repose (which are characteristic for both Carpophilinae and Cillaeinae), although in species of *Taeniolinus* new genus only a part of the 6th tergite is exposed from under elytral apices. Moreover, members of Taenioncini new tribe have all pairs of coxae subequally and comparatively closely approximated. The last character sometimes occurs in two other groups (the mentioned subfamilies), but it is unusual for both. Finally, some Epuraeini sensu stricto have the tergite VI fairly well sclerotized, but not exposed entirely or exposed only with its apex from under the elytral apices [*Epuraea* (*Haptoncus*), *E.* (*Epuraea*) sensu stricto, *Tetrisus* (*Trimenus*) and others]. Therefore it seems preferable to regard the present generic taxa as composing a separate tribe of the subfamily Epuraeinae assuming independent development of similarity in general exterior and some characters in abdomen of the Carpophilinae, Taenioncini new tribe and Cillaeinae. At the same time it is impossible to reject a probability of close kinship of the first and second of the mentioned groups.

B i o n o m y: The most representatives of the new tribe have more or less connection in their bionomy with blossoming plants and decaying fruits of different trees and bushes.

C o m p o s i t i o n and d i s t r i b u t i o n: Except for the type-genus, Taenioncini new tribe includes *Raspinotus* Kirejtshuk, 1990a, *Carpocryraea* new genus, *Taeniolinus* new genus and 2 genera still undescribed from Australia (Kirejtshuk, inedited). Almost all representatives of the new tribe are distributed in the Indo-Malayan, Australian and Novacaledonian regions, but *Raspinotus longior* Grouvelle, 1912 new combination is endemic for the Afrotropican and Capean regions and some of *Taenioncus* spread also in the Palaearctic Far East.

Key to genera of Taenioncini new tribe

1 a. Body oval; pronotum rather wide and trapezoidal with base much wider than apex, gently sloping at sides; eyes rather large; dorsum glabrous or finely pubescent, with sparse and more or less distinct punctures, with smooth or smoothly microreticulated interspaces. Male: fore and mid tibiae with subapical curve and/or dilatation, fore tarsi strongly dilated. . . . . *Carpocryraea* **new genus**

1 b. Body elongate; pronotum not very wide, subquadrangular, slightly transverse or elongate; eyes small or of moderate size. Male: tibiae, if sexually modified, in a different way 2

2 (1) a. Body subcylindrical dorsally with steeply (subvertically) sloping sides of pronotum and elytra; head about as wide as elongate pronotum; prosternal process very slightly curved medially, along coxae to apex; mesosternum scarcely depressed; fore tibia with irregular crenulation along outer edge; dorsum finely pubescent, with sparse, not quite distinct punctures and with conspicuous microreticulation on interspaces between them; tarsal claws simple and narrow. Male: tibiae without developed secondary sexual characters or hind tibiae somewhat curved and more or less dilated along inner edge. . . . . *Taenioncus* Kirejtshuk, 1984

2 (1) b. Body moderately or slightly convex dorsally; head markedly narrower than subquadrate pronotum; prosternal process strongly curved medially, along coxae to apex; mesosternum distinctly and deeply excavate; fore tibia regularly crenulate along outer edge; tarsal claws more frequently toothed or bulged at base (rarely simple) 3

3 (2) a. Body slightly convex and pronotum frequently subdepressed; antennal club subcircular and comparatively large; dorsum finely pubescent, with dense, indistinct punctures and conspicuously microreticulated interspaces (not infrequently pronotum or also elytra with a rasp-like surface); legs usually modified, but fore tibiae with regular fine, scarcely visible crenulation along outer edge. Male:

characters of sexual dimorphism developed in shape of tibiae and sometimes in shape of femora . . . . . *Raspinotus* Kirejtshuk, 1990

3 (2) b. Body gently and rather convex with pronotal and elytral sides comparatively steeply sloping; dorsum glabrous or finely pubescent, with sparse distinct punctures and smooth or rarely microreticulated interspaces; legs simple, but fore tibiae sometimes with wider but short teeth along outer edge; tarsal claws simple or strongly toothed. Male: legs simple or hind tibiae with a slight subapical curvature . . . . . *Taeniolinus* **new genus**

XII. Genus *Taenioncus* Kirejtshuk, 1984

=*Taenioncus* Kirejtshuk, 1984: 192; Kirejtshuk, 1992: 158. Type-species: *Carpophilus cylindricus* Murray, 1864 (designated by Kirejtshuk, 1984: 192).

Description: Elongate, almost parallelsided, evenly convex; light reddish to brownish, sometimes with infuscate elytral apices; finely and densely punctured and with moderately conspicuous pubescence. Head slightly convex and transverse, with moderately projecting bilobed labrum and mandibles. Antennae moderately long and with 3-segmented compact club. Pronotum subquadrangular, slightly elongate, with rounded fore and hind corners and steeply sloped at sides. Elytra steeply sloped at sides and without developed subsutural lines following separately from suture. Pygidial apex nearly abrupt in males and rounded in females. Underside more convex than dorsum. Antennal grooves weakly developed and strongly convergent behind mentum. Last labial palpomeres about as long as wide at apex and dilated towards abrupt apex. Mesosternum flattened and rather long (nearly 2/3 as long as prosternum). Metasternum convex and somewhat longer than pro- and mesosternum combined. Epipleura steeply upward sloped laterally. All pairs of legs with coxae drawn close together. Fore tibiae subtriangular with irregular crenulation at outer edge. Tarsal claws simple and narrow. Anal sclerite slightly angular at apex. Genitalia of both sexes rather generalized.

Diagnosis: The representatives of this genus look like very elongate and convex members of *Carpophilus* sensu lato, but abdominal apex and genitalia of them are characteristic for the subfamily Epuraeinae. Besides, in contrast to most of Carpophilinae the species of *Taenioncus* have subcylindrically vaulted dorsum, extremely dense and very fine punctation, rather long and not excavate mesosternum and strongly convex metasternum. Within members of the new tribe, the considered group can be easily diagnosed due to the characters in the above key. It is well characterized by subcylindrical body shape with rather large head, which is almost unique not only in the tribe, but in the subfamily as a whole. Finally, irregular crenulation along outer edge of fore tibiae is unknown among other groups of both Epuraeinae and Carpophilinae. *Taeniolinus* new genus is alone genus of Taenioncini new tribe which is rather similar to *Taenioncus*, but with body moderately or slightly convex dorsally, head markedly narrower than subquadrate pronotum, strongly curved prosternal process along coxae, excavate mesosternum, shorter metasternum (a little longer than prosternum with process), hind coxae moderately separated each from other (much broader than those in *Taenioncus*) and regular crenulation along outer edge of fore tibiae.

Notes: This group was regarded as one subgenus of the genus *Taenioncus* sensu lato, including also the other subgenus *T. (Raspinotus)*, although both appear to be rather different (see diagnosis of the both) to treat them as separate genera.

Bionomy: Bionomy remains poorly known, although according to the labels the species of this genus are common visitors of flowers and decaying fruits of different trees and bushes.

Composition and distribution: This genus spreads in the Indo-Malayan and Australian regions by the two representatives mentioned below, and the third *Taenioncus micros* Kirejtshuk, 1984 was described from Philippines. Finally, *Carpophilus longior* Grouvelle, 1912 and *Haptoncus depressus* Grouvelle, 1897 regarded by Kirejtshuk (1984, 1987a) as the members of *Taenioncus* should be rather attributed to *Raspinotus* (see below).

Key to species of genus *Taenioncus* from the Himalayas and northern Indochina

1 a. Lighter - straw coloured; dorsum with a more or less strongly conspicuous, almost rasp-like microreticulation on interspaces between punctures; larger (2.2-3.1 mm). India, Uttar Pradesh, West Bengal; Sri Lanka; Vietnam; New Guinea; Australia, North Territory, Queensland ..... *T. cylindricus* Murray, 1864

1 b. Darker - light brownish; dorsum with rather finely microreticulated and moderately dull interspaces between punctures; smaller (1.8-2.4 mm). Figs. 518, 519. India, Uttar Pradesh; Vietnam; Japan; Korea; China, Fujian; Indonesia, Lombok; Solomon Islands; New Guinea; New Hebrides; Australia, Queensland ..... *T. tenuis* Murray, 1864

Taenioncus cylindricus (Murray, 1864)

Map 15, e

(=*Carpophilus (Myothorax) cylindricus* Murray, 1864: 382, 397 (Ceylon) - Grouvelle, 1908: 337 (India, West Bengal); Grouvelle, 1913a: 84; *Taenioncus cylindricus*: Kirejtshuk, 1984: 193 (also Vietnam, New Guinea).

Material -

total more than 100 (Kirejtshuk, 1984), including lectotype (BMNH) and 3 paralectotypes (BMNH) -

India: 1 (MMUE) - „Nord India, Evans"; 2 (BMNH, ZISP) - „Fraserpet, Coorg., F.R.I. Sandal, Insect Servey, 1.VII.30"; 25 (SMNS, TMB, ZISP) - „W. Bengal, Birsivpur, Gy. Topál", „from fruit of *Ficus*, 13.I.1967"; 6 (MNW) - „Uttar Pradesh., Dehra Dun, Chakrata Road, 22.VII-1971, M.S. Mani";

Sri Lanka: lectotype *Carpophilus cylindricus*, male (BMNH), here designated and 3 **paralectotypes** (BMNH) - „51859", „Nietner", „ex. coll. Murray", „Ceylon";

Philippines: 9 (ZISP, ZMUC)- „Palawan, Mantalingajan, Pinigisan, 600 meter, 23 Sept. 1961, Noona Dan exp. 61-62"; and many specimens from Australia from different collections (including ANIC, ZISP).

D i a g n o s i s: This species is very similar to the following one differing only in the characters mentioned in the above key, i.e. lighter coloration and much more contrasting microreticulation between punctures on dorsum.

B i o n o m y: The imagines of this species have been collected in different types of forest (mostly in lowland forest) showing activity during the year round. They are probably associated with flowers and decaying fruits of different trees and bushes (*Dracena*, *Ficus* and others).

D i s t r i b u t i o n: This species is recorded from both Indo-Malayan and Australian regions (Australia, North Territory and Queensland), and it quite frequently occurs on the territory under consideration: India, Uttar Pradesh (Dehra Dun), West Bengal (Birsivpur, Calcutta); Sri Lanka (type locality); Vietnam, Cuc Phuong (Ninh Binh); Philipinnes, Palawan; Papua New Guinea.

Taenioncus tenuis (Murray, 1864)

Figs. 518, 519; Map 16, a

(=*Carpophilus (Myothorax) tenuis* Murray, 1864: 382, 397 (China, Hongkong); Reitter, 1884: 259 (Japan); Grouvelle, 1913a: 93; Hisamatsu, 1985: 179; *Carpophilus (Myothorax) tenuis hana* Nakane, 1959: 54; *Taenioncus tenuis*: Kirejtshuk, 1984: 193; Kirejtshuk, 1992: 158 (also tropics of Asia, Melanesia, Australia; synonymy).

M a t e r i a l -
total about 100, including lectotype and 2 paralectotypes (BMNH - Kirejtshuk, 1992) of *T. tenuis* and 1 paratype (collection of T. Nakane or Kagoshima University - Kirejtshuk, 1992) of *T. tenuis hana* -
India: 1 (BMNH) - „Kumaon, W.Almora, H.G.C." (H.G. Champion).

Vietnam: 1 (ZISP) - „40 km SW Thanh Hoa, Ben En Nat. Park, 12-24. 8. 1997, h=50 m, A. Napolov";
China: lectotype *Carpophilus tenuis,* female (BMNH), here designated and 2 **paraleletotypes,** females (BMNH) - „8876", *„tenuis"*, „68.106", „Murr.";
Indonesia: 1 (SMNS) - „Lombok Is., Senaro, N slope of Rinjani, 2-5 Feb. 1994, Holm, 1100 m";
and some specimens from Australia from different collections (including ANIC, ZISP).

D i a g n o s i s: This species is very similar to the preceding species differing from it only in the characters mentioned in the above key expressed in coloration and microreticulation on interspaces between punctures on dorsum.

B i o n o m y: This species has been collected in different types of forest at various elevations above sea level. Like the preceding species of this genus it is connected with blossoming plants and decaying fruits of trees and bushes and probably active during the year round.

D i s t r i b u t i o n: This species is characterized by a range, partly overlapping that of the preceding species, although *T. tenuis* reaches as far north as the southern islands of Japan (Tokara islands: type locality of *T. tenuis hana*); Korea; China (including Hongkong: type locality of *T. tenuis tenuis*). In the territory under consideration it is recorded from India, Uttar Pradesh (Kumaon western of Almora); Vietnam, Thanh Ho'a; Indonesia, Lombok (Senaro); Papua New Guinea; and also Solomon Islands and New Hebrides from the Polynesian region.

XIII. Genus *Raspinotus* Kirejtshuk, 1990, new status

=*Taenioncus (Raspinotus)* Kirejtshuk, 1990a: 67; Kirejtshuk, 1994c: 108-112. Type-species: *Haptoncus depressus* Grouvelle, 1897 (designated by Kirejtshuk, 1990a: 67).

Description of imago: Elongate oval or almost parallelsided, moderately and evenly convex; unicoloured light reddish to brownish, usually light brownish; finely and densely punctured and with moderately conspicuous pubescence. Head slightly convex and transverse, with moderately projecting bilobed labrum and mandibles. Antennae moderately long and with 3-segmented compact club. Pronotum subquadrangular, never elongate, with rounded fore and hind corners and steeply sloping at sides. Elytra steeply sloping at sides and without developed subsutural lines following separately from suture. Pygidial apex subabrupt in males and rounded in females. Underside slightly or moderately convex. Antennal grooves weakly developed and strongly convergent behind mentum. Last labial palpomeres about as long as wide at apex or somewhat longer and dilated towards abrupt apex. Mesosternum distinctly and deeply excavate and moderately long (nearly 2/3 as long as prosternum). Metasternum convex and much shorter than pro- and mesosternum combined. Epipleura moderately or steeply upward sloped laterally. Fore and mid pairs of legs with coxae drawn close together, but the distance between hind coxae 1.5-2.0 times broader than that between fore. Fore tibiae with regular and fine crenulation at outer edge. Tarsal claws simple and narrow. Anal sclerite of males sharply or slightly angular at apex. Genitalia of both sexes rather generalized.

Description of larva from fruit of *Ficus* (North Vietnam) (parazited by Chalcidae and, perhaps, partly deformed) - Figs. 701-710: Length 3.3 mm. Body oblong, subcylindrical and slightly C-curved, greyish yellow (almost straw coloured) with weak sclerotization on notal plates and tergites; dorsum with extremely short and sparse hairs, and setose small tubercles located on transverse stripes, which cross each abdominal tergite and somewhat more sclerotized than other surfaces of body sclerites (tubercles on all tergites arranged in 6 longitudinal and not quite regular rows continuing from metanotal plate to tergite VIII and 3 tubercles in each rows disposed on 8 abdominal segments). Abdominal tergite IX with very small urogomphi and some comparatively projecting tubercles. Head with frons bearing an indistinct trace of frontoclypeal suture at base, scarcely visible stemmata (viewing as 4 tubercles without pigmentation behind each antenna); labroclypeal epipharynx with developed furniture; mandibles with well raised mola and prosteca; maxillae with a mala bearing a well developed membraneous appendix at base of its inner side; hypopharynx with a moderately raised armature (including sclerome and bracons). Spiracles biforous and disposed on top of very short tube (as tubercles), abdominal ones situated dorsolaterally. Legs short, with simple tarsungulus bearing a long seta.

Diagnosis for imagines: This group is rather similar to members of *Taenioncus* and, therefore, the taxon for it was first proposed as a subgenus of the latter. Nevertheless, the species of *Raspinotus* in comparison with those of *Taenioncus* have usually wider and somewhat flattened body with transverse pronotum (although some of them are rather convex and slender), densely and indistinctly punctured dorsum and conspicuously microreticulated interspaces (not infrequently pronotum or also elytra with a rasp-like surface), slightly medially curved prosternal process along coxae, excavate mesosternum, comparatively long metasternum, regularly and finely crenulate outer edge of fore tibiae and with characters of sexual dimorphism developed in shape of tibiae and sometimes in shape of femora. Nevertheless, females of this group have less distinct characters available for their reliable identification. This genus can be easily distinguished from the species of *Taeniolinus* new genus according to the above key of genera (particularly due to the characters of sculpture of sclerites, fine crenulation on outer edge of fore tibiae and characters of sexual dimorphism in legs) and, besides, all species *Raspinotus* are covered with well conspicuous pubescence and never have smooth interspaces between punctures on dorsum and strongly toothed tarsal claws.

Notes: Sexual dimorphism among species of this subgenus can occur in shape of pronotum, size of head and structure of abdominal apex. Characters of tibia shape are more or less similar in both sexes, but size of tibiae and development of these characters can show some extent of allometric development. The proposed keys are for separate sexes (see below) which can be used for each sex taking into consideration the mentioned circumstances.

B i o n o m y: The species of this genus appear to have a bionomy similar to other forms of the tribe, live in forest on trees and bushes or/ and also on fruits, being either anthophagous or partly carpophagous.

C o m p o s i t i o n and d i s t r i b u t i o n: This group is mostly indochinese and consists of species here included and only *R. longior* Grouvelle, 1912, new combination [„*Carpophilus longior*", „*Taenioncus (Tanioncus) longior*"] widely distributed throughout Africa southern of Sahara (Kirejtshuk, 1996c).

Key to species of genus *Raspinotus* from the Himalayas and northern Indochina

M a l e s

1 a. Hind and other tibiae simple and comparatively short, with straight inner edge; temples not expanded beyond eyes 2

1 b. Hind tibia with a concave inner edge and other tibiae frequently modified; temples more or less expanded beyond eyes [but *R. depressus* sometimes with hind tibia almost straight and temples almost unextended beyond eyes] 3

2 (1) a. Pronotum with comparatively deeply excised fore edge and short protuberance, partly covering scutellum, surface with strongly conspicuous microreticulation on interspaces between sparser and smaller punctures which looks distinctly rasp-like; dorsum with dense, fine, but very conspicuous hairs, about twice as long as distance between their insertions. 3.2 mm. Figs. 554-556. North Vietnam . . . . . *R. spinicollis* Kirejtshuk, 1990

2 (1) b. Pronotum with slightly emarginate fore and almost straight hind edges, surface with somewhat smooth microreticulation between dense and comparatively coarse punctures; dorsum with moderately dense, fine and moderately conspicuous hairs, much more than twice as long as distance between their insertions. 2.2

mm. Figs. 536-539. North Vietnam . . . . . *R. hospitus* Kirejtshuk, 1990

3 (2) a. Pronotum widest in anterior half and with very long process covering scutellum and sometimes reaching almost to middle of elytra, its sides narrowly explanate; dorsum with very conspicuous rasp-like microreticulation of interspaces between punctures and very conspicuous hairs, about twice as long as distance between their insertions; hind femur with weakly convex hind edge; fore tibia simple and hind one somewhat curved. 3.2-3.6 mm. Figs. 557-560. North Vietnam; Malaysia, Kalimantan . . . . . *R. spinosus* Kirejtshuk, 1994

3 (2) b. Pronotum never widest in anterior half and without such a long process; combination of other characters different 4

4 (3) a. Fore tibia simple 5

4 (3) b. Fore tibia sharply widened along inner edge 6

5 (4) a. Pronotum distinctly and evenly convex with gently arched unexplanate sides and widely rounded hind corners; anal sclerite with small unpaired brush of hairs on apex; body light brownish; dorsum with interspaces between punctures (larger than eye facets) markedly more than one puncture diameter. 2.4-2.7 mm. Figs. 547-553. North Vietnam . . . . . *R. simples* Kirejtshuk, 1990

5 (4) b. Pronotum subdepressed and subquadrangular with less arched and narrowly explanate sides, its hind corners with more or less distinct apices; anal sclerite with or without pair of brushes with rather long hairs; body unicoloured straw; dorsum with interspaces between punctures (about as large as eye facets) hardly more than one puncture diameter. 2.2-3.3 mm. Figs. 522-528. Indonesia, Sumatra; Vietnam; Malaysia, Penang . . . . . *R. depressus* (Grouvelle, 1897)

6 (4) a. Fore tibia with sharp subapical dilation along inner edge; pro-

notum with comparatively deep and trapezoidal excised fore edge, more or less rounded hind corners and a medial angular process partly covering scutellum; dorsum with more distinct and larger punctures; anal sclerite with pair of brushes with long hairs. 2.5 mm. Figs. 520-521. North Vietnam ..... *R. combinatus* Kirejtshuk, 1994

6 (4) **b**. Fore tibia widened along inner edge in basal fourth; pronotum with shallow and arcuately emarginate fore edge, angulate hind corners and almost straight base; dorsum with indistinct and smaller punctures; anal sclerite with unpaired brush with very short hairs. 2.2-3.4 mm. Figs. 529-535. India, Tamil Nadu; Indonesia, Java; Brunei; Philippines, Luzon, Mindanao, Imugan ..... *R. excellens* Kirejtshuk, 1990

Females

1 **a**. Body subcylindrical dorsally with subparallel sides of pronotum and elytra; head with very large eyes and temples not extended beyond eyes; antennal club smaller and elongate oval; dorsum with sparse and comparatively large punctures, interspaces between them smoothly microreticulated and with moderately conspicuous hairs, slightly longer than distance between their insertions; pygidial apex blunty subacute. 2.3 mm. Figs. 544-546. Thailand ..... *R. schawalleri* **new species**

1 **b**. Body moderately convex dorsally or somewhat flattened on pronotum; sides of pronotum and elytra more or less curved (at least at head and abdominal apex); head with moderately large eyes and temples extended or almost extended beyond eyes; antennal club larger and subcircular; dorsum with finer and denser punctation, more or less dull interspaces and longer pubescence [but in *R. krakingus* new species antennal club comparatively small and elongate oval, punctation sparser, interspaces partly smooth, pubescence rather short and slightly conspicuous] 2

2 (1) a. Fore tibia sharply widened in basal fourth along inner edge .. 3

2 (1) b. Fore tibia simple 4

3 (2) a. Body smaller (2.2-3.4 mm); elytra not longer than their combined width; mid tibia simple; pronotum widest in middle; antennal club comparatively larger and semicircular; dorsum with indistinct and much smaller punctures, interspaces between them conspicuously microreticulated; covered with golden and very conspicuous hairs, 1.5-2.0 times as long as distance between their insertions; pygidial apex moderately rounded. Figs. 529-535. India, Tamil Nadu; Indonesia, Java; Philippines, Luzon, Imugan, Mindanao ... *R. excellens* Kirejtshuk, 1990

3 (2) b. Body larger (4.5 mm); elytra markedly longer than their combined width; mid tibia with strong subapical dilatation along inner edge; pronotum widest in anterior half; antennal club comparatively smaller and elongate oval; dorsum with rather distinct and larger punctures, interspaces between them smoothly microreticulated; covered with yellowish and slightly conspicuous hairs, hardly longer than distance between their insertions; pygidial apex almost subtruncate. Figs. 540-543. Singapore ..... *R. krakingus* **new species**

4 (2) a. Body light brownish; pronotum distinctly and evenly convex with gently arched unexplanate sides and widely rounded hind corners; dorsum with interspaces between punctures (larger than eye facets) markedly more than one puncture diameter. 2.4-2.7 mm. Figs. 547-553. North Vietnam ..... *R. simples* Kirejtshuk, 1990

4 (2) **b**. Body unicoloured straw; pronotum similar or subdepressed and subquadrangular with less arcuated and narrowly explanate sides, hind corners with more or less distinct apices; dorsum, at least on pronotum and head with interspaces between punctures (about as large as eye facets) hardly more than one puncture diameter. 2.2-3.3 mm. Figs. 522-528. Indonesia, Sumatra; North Vietnam; Malaysia, Penang ..... *R. depressus* (Grouvelle, 1897)

Raspinotus combinatus Kirejtshuk, 1994, **new combination**

Figs. 520-521; Map 16, b

=*Taenioncus (Raspinotus) combinatus* Kirejtshuk, 1994c: 108 (North Vietnam).

Material -
holotype (ZISP - Kirejtshuk, 1994c).

Diagnosis: This species is very similar to *R. spinicollis* and *R. spinosus*, but quite distinct from both in shape of fore and hind legs, and from the latter also in shape of pronotum (see the key above). Besides, dorsum of *R. combinatus* is covered with comparatively short hairs and its fore tarsi in male is about 1/4 as wide as fore tibiae.

Bionomy: The holotype of this species has been captured in January.

Distribution: This species is known only from its type locality: Vietnam, Lang Chanh (near Thanh Ho'a).

Raspinotus depressus (Grouvelle, 1897), **new combination**

Figs. 522-528; Map 16, c

(=*Haptoncus depressus* Grouvelle, 1897: 357 (Sumatra); Grouvelle, 1913a: 96; *Taenioncus depressus*: Kirejtshuk, 1987a: 74 (also North Vietnam; lectotype designation); *Taenioncus (Raspinotus) depressus*: Kirejtshuk, 1990a: 67, 72.

Material -
total 9, including lectotype (MSNG - Kirejtshuk, 1987a) and 3 paralectotypes (MSNG - Kirejtshuk, 1987a) -
Vietnam: 1 female (TMB) - „Prov. Ha-Tinh, forestiére, Hüöng-sön, 150 m, forét trop. pluv.", „à la lumiére, 19.VIII.1963, T. Pócs";
Malaysia: 2 (ZISP, collection of Leiler) - „Penang, Ferringh, 23.1.1984, T.-E. Leiler".

Variations: Length 2.2-3.3 mm. In addition to the redescription of this species in Kirejtshuk (1987a), it needs to be noted that punctures on elytra of the specimens recently studied are as distinct as on head and pronotum but more sparse, with interspaces a little broader than one puncture diameter. Besides, the male from Malaysia is without pair of brushes at apex of anal sclerite, but with rather long hairs and the female from there with pronotum more convex, scarcely explanate at more arcuate sides.

Diagnosis: This species is characterized by simple legs - except a weak curve of hind tibia, light coloration and a pair of distinct brushes with very long hairs on apex of anal sclerite. It has more resemblance to *R. spinicollis* in colour, shape of all sclerites and character of sculpture, but its attributes correspond with those in *R. simples* (see the above key). The specimen from Vietnam determined as this species has intermediate appearance between typical representatives of *R. depressus* and true ones of *R. simples*, although its body is comparatively flattened, wide and rather light.

Bionomy: The imagines of this species have been collected in January and August in mountain forest and tropical rainforest.

Distribution: This species is recorded from Vietnam, Hu'o'ng Son (Province. Ha-Tinh); Malaysia, Penang („Ferringh"); Sumatra „Balighe" (type locality).

Raspinotus excellens Kirejtshuk, 1990, **new combination**

Figs. 529-535; Map 16, d

=*Taenioncus (Raspinotus) excellens* Kirejtshuk, 1990a: 70, 72 (Philippines, Imugan); *Taenioncus (Raspinotus)* affl. *depressus*: Kirejtshuk, 1990a: 72 (Indonesia, Java).

Material -
total 13, including holotype (ZMB - Kirejtshuk, 1990a) -

India: 1 (BNMH) - „Nilgiri Hills, H. L. Andrewes", „Hap. prolatus var.", „*Carpophilus eximius* ty. Grouv.";
Brunei: 1 (DEI) - „Brunei", „*Carpophilus eximius* var. Grouv."
Philippines: 8 (USNM, ZISP) - „Mt. Makling, Luzon, Baker".

Variations: This species was described from the Philippines and perhaps two forms of it (one from Philippines, and second from India and Indonesia) could be regarded as two separate subspecies or even two separate species. The „nominative" form is smaller (2.2-2.5 mm), more convex and more slender, with extremely sparse and small punctures in contrast to the other - larger (2.8-3.4 mm), less convex, and more robust with rather dense and moderately large punctures.

Diagnosis: This species is well diagnosed by the peculiar shape of its fore tibiae in males, temples most extended beyond eyes. However the specimens from India and Indonesia have more similarity to *R. depressus* and *R. spinicollis*, but with legs as those in *R. excellens* from Philippines and *R. krakingus* new species. Probably, the philippinese form can differ as a separate subspecies from the specimens from other part of range of this species (see above).

Bionomy: This species was collected February and June, probably in mountain forest.

Distribution: This species seems to be characterized by a comparatively wide range and to the present it has been recorded from India, Tamil Nadu (Nilgiri Hills); Indonesia, Java („Palaboen"); Philippines, Luzon („Mountain Makling"), Imugan (type locality), Mindanao (Kolam-bugan near Lanao).

Raspinotus hospitus Kirejtshuk, 1990, new combination

Figs. 536-539; Map 16, e

=*Taenioncus (Raspinotus) hospitus* Kirejtshuk, 1990a: 71, 72 (North Vietnam).

Material -
holotype (ZISP - Kirejtshuk, 1994c).

Diagnosis: This species is quite similar to other members of the subgenus with a comparatively large antennal club (*R. depressus*, *R. excellens*, *R. simples*, *R. spinicollis*), but differs from them in somewhat smooth and not rasp-like surface of pronotum as well as in the characters mentioned in the above key to species.

Bionomy: The holotype of this species has been collected in fruits of *Dillenia* in mountain forest in February.

Distribution: This species is known only from its type locality: Vietnam, ridge Tam Dao (So'n Du'o'ng).

Raspinotus krakingus new species

Figs. 540-544; Map 17, a

Material -
Singapore: **holotype**, female (BMNH) - „Res. 5.4.3. 23, Jungle fruit", „Singapore, C.J. Saunders".

Description of holotype (female): Length 4.5, breadth 1.6, height 1.0 mm. Moderately convex dorsally and ventrally; unicoloured straw reddish; dorsum with a moderate and underside with rather distinct shine; dorsum with fine, moderately dense, slightly conspicuous yellowish hairs, scarcely longer than distance between their insertions, underside with denser but yet less conspicuous hairs. Head and pronotal surface with distinct oval punctures, somewhat larger than eye facets, interspaces between them a little narrower than one puncture diameter, finely and smoothly microreticulated. Elytral surface about as on head and pronotum, but with interspaces as broad as one puncture diameter or a little more and with smoother microreticulation. Surface of tergites uncovered by elytra and prosternum with almost invisible punctation and extremely fine, dense and conspicuous microreticulation. Surface of metasternum and ventrite 1 with punctures a little smaller than eye facets, interspaces between punctures nearly as broad as one puncture

diameter, with fine, but not dense and very smooth microreticulation. Surface of ventrites 2-5 somewhat similar to that on metasternum, but punctures smaller and denser, interspaces between them densely and more conspicuously microreticulated. Head slightly convex, 4/5 as long as distance between eyes. Labral lobes far projecting anteriorly. Antennae a little shorter than head breadth, their club comprising a third of total antennal length. Pronotum rather vaulted with steeply sloping sides and unexplanate lateral edge. Elytra rather long, about 1 1/3 times as long as their combined width, with steeply sloping and arcuately outlined sides, widely and separately rounded apices. Pygidium with very wide, almost subtruncate flattened apex. Last segment of labial palpi slightly longer than wide at apex. Prosternal process strongly medially curved along coxae and very widened before its apex, strongly approaching the surface of mesosternum and with subtranversely truncate hind edge. Distance between mid coxae subequal and that between hind ones twice more than that between fore coxae. Metasternum rather convex and with shallowly and angularly excised hind edge between coxae. Epipleura slightly wider than antennal club. Tibiae very long and more or less modified. Femora with almost straight or slightly concavẽ hind edge. Fore tarsi about 2/3 as wide as corresponding tibiae, mid and hind ones much narrower; tarsal claws long and somewhat toothed at base, with well developed bisetose empodium between them. Ovipositor weakly sclerotized.

D i a g n o s i s: This species is well characterized by its large body, prosternal process strongly curved along fore coxae and specifically modified mid tibia. Moreover, it also has the following diagnostic features: pronotum widest in anterior half but without any medial process at base, comparatively long elytra, almost truncate pygidium of female, comparatively small and elongate oval antennal club, peculiar punctation and sculpture of surface.

B i o n o m y: The holotype of this species has been collected on jungle fruit.

D i s t r i b u t i o n: This species is known only from its type locality: Singapore.

Raspinotus schawalleri new species
Figs. 544-546; Map 17, b

M a t e r i a l -
Thailand: **holotype**, female (SMNS) - „10-13.5.1993, 19.27 N 98.20 E, Soppong, 1550 m, L. Bocàk"

D e s c r i p t i o n of holotype (female): Length 2.3, breadth 0.8, height 0.5 mm. Rather convex dorsally and ventrally; bright reddish; with faint sheen, but middle of metasternum and ventrite 1 very shiny; body with fine and slightly conspicuous yellowish hairs, a little longer than distance between their insertions. Head, pronotal and pygidial surface with shallow but more or less distinct punctures, about as large as eye facets, interspaces between them subequal or less than one puncture diameter, with cellular, fine and somewhat smooth microreticulation. Elytral surface similar to that on head and pronotum, but with shallower punctures. Prosternal process with invisible punctation and finely alutaceous. Surface of metasternum and ventrite 1 with distinct punctures much smaller than eye facets, interspaces between them two times and more as broad as one puncture diameter, strongly smoothed. Ventrites 2-5 with punctures as large as those on metasternum and ventrite 1, but interspaces between them about one puncture diameter with well developed microreticulation. Head almost 2/3 as long as distance between eyes, slightly convex in basal half. Labrum moderately exposed from under frons. Antennae somewhat shorter than head broad, their club composing nearly a third of total antennal length. Pronotum subquadrate with subvertically sloping sides and unexplanate lateral edges. Elytra with truncate apices. Pygidium with a prolonged and narrowed, but blunty acute apex. Last labial palpomeres nearly twice wider at apex than length. Prosternal process very strongly medially curved along fore coxae and strongly approaching to mesosternal surface by unprojecting apex with truncate hind edge. Distance between mid coxae twice less and that between mid ones 1.5 times more than that between fore coxae. Mesosternum strongly excavate. Metasternum slightly convex and with slightly and angularly excised hind edge between coxae. Epipleura nearly as wide as antennal club. Tibiae short and wide, slightly narrower than antennal club; mid tibiae with convex

outer edge and hind ones subtriangular. Fore and mid femora 1 2/3 times, but hind one about twice wider than corresponding tibiae. Fore tarsi 3/5 as wide as corresponding tibiae, but mid and hind ones much narrower; tarsal claws strongly toothed at base.

D i a g n o s i s: *Raspinotus schawalleri* new species is very distinct among the members of the genus *Raspinotus*. This species has some resemblance to the genus *Taenioncus* sensu stricto in the very convex and subparallelsided (subcylindrical) body, but with comparatively wide body, transverse pronotum, comparatively small and elongate oval antennal club, excavate mesosternum and slightly convex metasternum, regular crenulation along inner edge of fore tibia and strongly toothed tarsal claws. Moreover, large eyes consisting of rather large facets in the species under consideration has some reminiscence with those in species of *Haptoncurina*, *Platychorina* Grouvelle, 1905, *Ommoraea* new subgenus and *Taeniolinus* new genus, although many other characters show that this species should be placed among Taenioncini new tribe. Finally, the strongly curved prosternal process and strongly excavate mesosternum is especially characteristic. It is possible to suppose that attribution of this species to the subgenus *Raspinotus* is more provisional than definite.

B i o n o m y: The holotype of this species has been collected in mountain forest at elevations 1550 m above sea level, in the middle of May.

D i s t r i b u t i o n: This species is known only from its type locality: Thailand, Soppong.

E t y m o l o g y: This new species is named in honour of W. Schawaller (SMNS), who collected in the Himalayas many interesting Coleoptera, who initiated this monograph and who helped with its edition.

Raspinotus simples Kirejtshuk, 1990, **new combination**

Figs. 547-553; Map 17, c

=*Taenioncus (Raspinotus) simples* Kirejtshuk, 1990a: 69, 73 (North Vietnam).

M a t e r i a l -
total 4, including holotype (ZISP - Kirejtshuk, 1990a) and 3 paratypes (ZISP - Kirejtshuk, 1990a).

D i a g n o s i s: This species, like *R. hospitus* (see above), is quite similar to other members of the subgenus with a comparatively large antennal club and having a rasp-like surface on the pronotum, but it can be distinguished by the characters mentioned in the above key to species. It is characterized by sparse and comparatively coarse punctures on dorsum.

B i o n o m y: The imagines of this species have been collected in mountain forest at elevations about 1000 m above sea level, in February and March.

D i s t r i b u t i o n: This species is known only from Vietnam, Thai Nguyên (type locality) and ridge Tam Dao (So'n Du'o'ng).

Raspinotus spinicollis Kirejtshuk, 1990, **new combination**

Figs. 554-556

=*Taenioncus (Raspinotus) spinicollis* Kirejtshuk, 1990a: 69, 72 (North Vietnam).

M a t e r i a l -
holotype (ZISP - Kirejtshuk, 1994c).

D i a g n o s i s: As the previous species, this is quite similar to other members of the subgenus with a comparatively large antennal club and having a rasp-like surface on pronotum, but can be distinguished by the characters mentioned in the above key to species. This species is also characterized by long hairs in a pair of brushes at apex of anal sclerite in males. It can be distinguished from *R. spinosus* in deeper trapezoidal excision of fore edge of pronotum, greatest pronotal width at middle and shorter process of pronotal base and from *R. combinatus* in narrowly, but distinctly explanate pronotal sides; also from both in slightly

convex hind edge of hind femur, simple tibiae with straight inner edge of hind ones and weakly raised hairs in brushes on apex of anal sclerite in male.

B i o n o m y: The holotype of this species has been captured in mountain forest at lower elevations, in February.

D i s t r i b u t i o n: This species is known only from its type locality: Vietnam, ridge Tam Dao (So'n Du'o'ng) (see distribution of *R. hospitus* on Map 16, e).

Raspinotus spinosus Kirejtshuk, 1994, **new combination**

Figs. 557-560; Map 17, d

=*Taenioncus (Raspinotus) spinosus* Kirejtshuk, 1994c: 110 (North Vietnam).

M a t e r i a l -
total 2, including holotype (ZISP - Kirejtshuk, 1994c) -
Malaysia: 1 male (CNC) - „ Sarawak, Semongok, 12 mi. S. Kuching, 6.XII.1974, A. Earnshaw".

D i a g n o s i s: This species can be easily recognized due to its characteristic process at middle of pronotal base. It has rasp-like surface to pronotum and long hairs in pair of brushes at apex of anal sclerite in males. The specimen from Malaysia differs from the holotype in not so wide anterior part of pronotum, shorter process of pronotal base extended hardly farther than basal fourth of elytra, shorter elytra, unforked subapical process of fore tibia, less concave hind edge of hind femur and shorter and less curved hind tibia.

B i o n o m y: The imagines of this species have been captured in the end of January and December, probably in mountain forest at lower elevations.

D i s t r i b u t i o n: This species is known only from Vietnam, Lang Chanh (near Thanh Ho'a: type locality) and Malaysia, Sarawak (Semongok, Kushing).

XIV. Genus *TAENIOLINUS* new genus

Type-species: *T. nitidissimus* new species.

D e s c r i p t i o n: Elongate, rather convex dorsally and ventrally. Dorsum distinctly and sparsely punctured, glabrous or with very short and fine pubescence, without ciliae along sides. Head short with large eyes composed of very large facets. Antennae moderately long and with 3 last segments simply clubbed. Last maxillary palpomeres narrowed to apex, but those of labial ones usually nearly cup-like. Antennal grooves short, sharply outlined and rectilinearly convergent. Pronotum subquadrangular, with convex or somewhat flattened disk and steeply sloping lateral sides, unexplanate or scarcely explanate at bordered edge, fore corners widely rounded and not projecting, hind corners right with rounded apex. Scutellum subtriangular. Elytra somewhat shortened, with flat disc and steeply sloping lateral sides narrowly explanate at edge and with transversely truncate apices leaving 2 last (well sclerotized) tergites uncovered (i.e. pygidium and part of preceeding one). Pygidium with truncate or emarginate apex in male (anal sclerite projecting not so far from pygidial apex) and with more or less rounded apex in female. All pairs of coxae subequally approximated, with moderately or very narrow distance between them. Metasternum rather convex and without developed medial depression. Ventrite 1 more or less shorter than hypopygidium with rounded apex and scarcely raised characters of sexual dimorphism (in type-species hypopygidium much shorter than 1st ventrite and with abrupt apex). Epipleura fairly well elevated to lateral edges. Legs simple, moderately long and narrow; femora with fore and hind edges gently curved; tibiae subtriangular and without any visible character of sexual dimorphism, fore ones with rather prominent or very fine crenulation at outer edge; mid and hind ones narrow, with rows of more or less stout spines along their outer edge. First 3 tarsomeres of all tarsi with raised lobes; claws usually strongly toothed

(or at least bulbous at base) or rarely almost simple. Aedeagus rather long, with heavily sclerotized lateral lobes of tegmen (deeply excised at middle) and scarcely sclerotized penis trunk. Ovipositor simple (generalized) or strongly modified, with displaced styli at its sides and deeply forked apex or sharply acute.

D i a g n o s i s: The genus *Taeniolinus* new genus must be without any doubt treated as a member of the Taenioncini new tribe, but is distinct from other groups of the tribe after the above key. The species of this genus are distinct from species of *Taenioncus* and *Raspinotus* in their sparse and distinct punctation, frequently nearly smooth interspaces between them, reduced pubescence, strongly modified ovipositor and other features. The species of this new genus has an appearance somewhat similar to the members of genus *Nitops* Murray, 1864 (Carpophilinae), but with the genitalia of the Epuraein type.

B i o n o m y: As yet there is no information on bionomy for the rare species of this new genus, except for geographic and season data of captures of specimens. Nevertheless their appearance (in particular cup-like last labial palpomeres, large facets of comparatively large eyes, convex body) gives some evidence to suppose an open mode of life for imagines of this genus. Some connections with flowers or partly with fruits of trees and bushes are very probable.

C o m p o s i t i o n and d i s t r i b u t i o n: Except for type-species this genus includes *Nitops weyersi* Grouvelle, 1900 *(Taeniolinus weyersi* new combination from Sumatra, *Epuraea francoisi* Grouvelle, 1903b (*Taeniolinus francoisi* new combination) from New Caledonia, *T. johnsoni* new species, *T. merkli* new species, *T. parvus* new species, *T. spinigerus* new species and one congener from New Guinea and Australia is still undescribed.

E t y m o l o g y: The name of this new genus is formed from the generic name *Taenioncus* (Latin „taenia" - stripe, headband, fillet, bandage).

Key to species of genus *Taeniolinus* new genus from Indochina and adjacent territories

1 a. Pronotum subquadrate; weakly shiny and alutaceous or partly microreticulated interspaces between punctures; combined width of eyes about 1.5 times less than distance between them; fore tibiae never wider than antennal club 2

1 b. Pronotum narrowed forwards or with arcuate sides; very shiny with smooth interspaces between punctures; combined width of eyes much more or much less than 1.5 times as broad as the distance between them. Female: fore tarsus 2/3 as wide as fore tibia 3

2 (1) a. Dorsum strongly convex, with conspicuous hairs distinctly longer than distance between their insertions, with rather large and more sparse punctures; tarsal claws strongly toothed; combined width of eyes markedly more than distance between them (1.5 times broader); prosternal process strongly widened before truncate apex; elytra almost as long as their combined width (somewhat less than 1 1/7 times); terminal labial palpomeres widened to apex, transverse. Female: fore tarsi 2/3 as wide as fore tibiae; pygidium moderately rounded at apex. 2.7 mm. Figs. 675-678. Malaysia, Malacca peninsula . . . . . *T. johnsoni* **new species**

2 (1) b. Dorsum without visible pubescence, somewhat less convex, with punctures more dense and smaller; tarsal claws bulbous at base; combined width of eyes 1.5 times less than distance between them; prosternal process moderately widened before truncate apex; elytra about 1 1/7 times as long as combined width; terminal labial palpomeres markedly narrower to apex, somewhat longer than wide. Male: fore tarsi 2/3 as wide as fore tibiae; mid femur with an angular protuberance at distal half of hind edge; mid tibiae somewhat dilated at inner edge before apex. 2.8 mm. Figs. 567-576. Malaysia or Indonesia, Kalimantan . . . . . *T. spinigerus* **new species**

3 (1) a. Dorsum distinctly pubescent and with dense and conspicuous cellular microreticulation; labrum with shallow medial emarginati-

on; combined width of eyes somewhat more than distance between them; elytra about 1 and 1/3 as long as their combined width; tarsal claws short and narrow; body unicoloured straw reddish. Male: fore tarsi about 3/4 as wide as corresponding tibiae; hind femur with slightly convex hind edge; anal sclerite with weak paramedial apical brushes. 1.9 mm. Figs. 685-691. Sri Lanka ..... *T. parvus* **new species**

3 (1) b. Dorsum never with visible pubescence, but interspaces between punctures smooth or smoothly microreticulated; elytra distinctly shorter 4

4 (3) a. Tarsal claws strongly toothed; fore tibia about 1/4 as wide as long, with very fine and short teeth along outer edge; labrum with a narrow medial excision; combined width of eyes 1.5 times more than distance between them; elytra about 1 1/8 or less as long as their combined width; prosternal process with widely rounded apex; body unicoloured light brownish. Male: fore tarsus 2/3 as wide as fore tibia; all tibiae and femora simple. Female: pygidium widely rounded at apex. 2.6-3.4 mm. Figs. 679-684. Malaysia, Malacca peninsula ..... *T. merkli* **new species**

4 (3) b. Tarsal claws narrow and slightly bulbous at base; fore tibia with markedly wider, about 1/3 as wide as long, with rather short teeth along outer edge; labrum with a shallow medial emargination; combined width of eyes subequal to distance between them; elytra about 1 1/7 times as long as combined width; prosternal process with truncate apex; body unicolored bright reddish. Female: pygidium very widely rounded, almost truncate apex. 2.3 mm. Figs. 561-566. Malaysia, Malacca peninsula ..... *T. nitidissimus* **new species**

Taeniolinus johnsoni new species

Figs. 675-678; Map 17, e

Material -

Malaysia: **holotype**, female (TMB) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, N 72, 21.III-2.IV.1995, O. Merkl".

Description of holotype (female): Length 2.7, breadth 0.9, height 0.6 mm. Strongly convex dorsally and ventrally; unicoloured reddish; moderately shiny; dorsum with rather conspicuous yellowish hairs distinctly longer (about 1.5 times) than distance between their insertions; underside with shorter and hardly conspicuous hairs, about as long as distance between their insertions. Head, pronotal and elytral surfaces with distinct punctures, about as large as eye facets, interspaces between them 1/2-3/4 puncture diameter, extremely finely, cellularly and smoothly microreticulated. Surface of uncovered tergites and hypopygidium somewhat similar to that on head, pronotum and elytra, but with denser and somewhat smaller punctures and conspicuously microreticulated interspaces between them. Surface of metasternum and ventrite 1 with punctures as large as those on uncovered tergites and hypopygidium, interspaces between them with fine and cellular, rather smooth microreticulation. Surface of prosternum with very reduced punctation and alutaceous interspaces between them. Head flattened, as long as distance between extremely large eyes composed of very large facets (combined width of eyes 1.5 times less than distance between them). Antennae much shorter than head breadth, their club comprising about 1/3 total antennal length. Terminal labial palpomeres transverse, somewhat widened at apex. Pronotum subquadrangular, slightly arcuately narrowed to apex and base, with subvertically sloping sides, fore and hind corners rounded and not projecting. Elytra with steeply sloping sides and almost transversely truncate apices, somewhat less than 1 1/7 times as long as combined width. Pygidium regularly triangular, with moderately rounded apex. Distance between mid coxae 3 times narrower and that between hind ones about 1.5 times broader than that between fore coxae. Prosternal process rather strongly medially curved between coxae and dilated before its truncate apex which strongly ap-

proaches the mesosternal surface. Metasternum convex with shallowly and angularly excised hind edge between coxae. Epipleura as wide as antennal club. Fore and mid tibiae slightly narrower than antennal club, but hind much narrower; fore tibia with short but wide crenulation along outer edge and with a strong subapical process. Femora with convex fore and hind edges, fore and mid ones 2.5 times but hind one almost 3.0 times as wide as corresponding tibiae. Fore tarsi 2/3 as wide as fore tibiae, mid and hind ones a little narrower, claws strongly toothed at base. Ovipositor moderately sclerotized.

D i a g n o s i s: This new species is easily diagnosed and characterized by convex dorsum with rather conspicuous hairs, distinctly longer than distance between their insertions, and also with rather large and more sparse punctures; strongly toothed tarsal claws; rather separated eyes; terminal labial palpomeres widened to apex and transverse and especially rather close mid coxae.

B i o n o m y: The holotype has been captured at the edge of degraded rainforest within March-April.

D i s t r i b u t i o n: This species is known only from its type locality: Malaysia, Pahang (Cameron Highlands near Tanah Rata).

E t y m o l o g y: This new species is named in honour of C. Johnson (MMUE), who corrected many parts of the English text of this monograph and who provided the author with specimens for study.

Taeniolinus merkli new species

Figs. 679-684

M a t e r i a l -
total 4, including holotype (TMB) and 3 paratypes (TMB, ZISP) - **Malaysia**: **holotype**, male (TMB) and 2 **paratypes** (TMB, ZISP) - „Pahang, Cameron Highlands, Tanah Rata, edge of degraded rainforest", „at light, N 72, 21.III-2.IV.1995, O. Merkl"; 1 **paratype** (ZISP) - „Pahang, Cameron Highlands, 2 km S Tanah Rata, on Tapah Road", „montane (mountain) rainforest, at light, N 93, 29.III.1995, O. Merkl & I. Szikossy".

D e s c r i p t i o n of male (holotype): Length 2.7, breadth 0.9-1.2, height 0.7 mm. Strongly convex dorsally and ventrally; unicoloured brownish; strongly shiny; dorsum glabrous; underside with short and slightly conspicuous hairs, about as long as distance between their insertions. Head, pronotal and elytral surfaces with distinct and rather deep punctures, about as large as eye facets, interspaces between them about half a puncture diameter on head and about one puncture diameter on pronotum and elytra, smooth or smoothly alutaceous. Surface of uncovered tergites and hypopygidium somewhat similar to that on head, pronotum and elytra, but with denser and somewhat smaller punctures (distinctly smaller than eye factes), interspaces between them markedly narrower one puncture diameter and smoothly alutaceous. Surface of metasternum and ventrites 1-4 with punctures as large as those on uncovered tergites and hypopygidium, interspaces between them broader than one puncture diameter and smoothly alutaceous. Surface of prosternum with very small but distinct and sparse punctures and smooth interspaces between them. Head moderately and gently convex, about as long as distance between extremely large eyes composed of very large facets (combined width of eyes 1.5 times more than distance between them). Antennae much shorter than head breadth, their club comprising about 1/3 total antennal length. Terminal labial palpomeres transverse, somewhat widened at apex. Pronotum strongly convex and slightly arcuately narrowed to apex and base, with strongly convex disc and subvertically sloping sides, fore and hind corners rounded and not projecting. Elytra with steeply sloping sides and almost transversely truncate apices, about 1 1/8 as long as combined width. Pygidium subtriangular, with flattened and truncate apex, from under which subangular apex of anal sclerite is moderately projecting posteriorly. Distance between mid coxae subequal and that between hind ones almost twice broader than that between fore coxae. Prosternal process rather strongly medially curved between coxae and dilated before its widely rounded, subtruncate apex which strongly approaches the mesosternal surface. Metasternum flattened with moderately and angularly excised hind edge between coxae. Epipleura as wide as antennal club. Tibiae

much narrower than antennal club; fore tibia with short but wide crenulation along outer edge and with a short and pointed subapical process. Femora with convex fore and hind edges, 2.5-3.0 times as wide as tibiae. Fore tarsi 2/3 as wide as fore tibiae, mid and hind ones a little narrower, claws strongly toothed at base. Aedeagus moderately sclerotized.

F e m a l e: Pygidium and hypopygidium widely rounded at apex. Ovipositor moderately sclerotized.

V a r i a t i o n s: Length 2.6-3.4, breadth 0.9-1.2 mm. Pronotal shape shows a some extent of variability, but anterior half of it in all studied specimens arcuately narrowed to rounded fore corners. Little variability is exposed in coloration and dorsal punctation.

D i a g n o s i s: This new species is easily diagnosed according to the above key. Besides, this species can characterized by strongly toothed tarsal claws, convex head with rather separated eyes, comparatively short elytra, prosternal process with widely rounded apex and rather excised hind edge of metasternum between coxae. Finally it also has some peculiarities in genitalia of both sexes and secondary sexual dimorphism. *Taeniolinus merkli* new species is definitely related to *T. weyersi* new combination differing from the latter in nearly uniform punctation and smoothed interspaces of dorsal sclerites, longer elytra and peculiarities of genital structures in both sexes.

B i o n o m y: The imagines of this species have been collected in degraded rainforest and mountain rainforest within March-April, probably at low elevations.

D i s t r i b u t i o n: This species is known only from type locality in Mallaca peninsula of Malaysia [Pahang (Cameron Highlands, Tanah Rata)] (see distribution *T. johnsoni* new species on Map 17, e)

E t y m o l o g y: This new species is named in honour of O. Merkl (TMB), who provided the author with specimens for study during many years.

Taeniolinus nitidissimus new species
Figs. 561-566; Map 18, a

M a t e r i a l -
Malaysia: holotype, female (BMNH) - „Malaya, Kuala Lampur", „17.4.1913, H.M. Pendlebury".

D e s c r i p t i o n of holotype (female): Length 2.3, breadth 0.9, height 0.7 mm. Strongly convex dorsally and ventrally; bright reddish; very shiny; dorsum glabrous and underside with very short, hardly conspicuous hairs. Head, pronotal and elytral surfaces with distinct and deep punctures, somewhat larger than eye facets, interspaces between them subequal or a little narrower than one puncture diameter, smooth and shiny. Surface of uncovered tergites and hypopygidium somewhat similar to that on head, pronotum and elytra, but with denser punctures and smoothly microreticulated interspaces between them on hypopygidium. Surface of metasternum and ventrive 1 with smaller and much sparser punctures than those on dorsal sclerites, interspaces between them with fine and cellular, partly smoothed microreticulation. Surface of prosternum with very reduced punctation and alutaceous interspaces between them. Head convex, as long as distance between extremely large eyes composed of very large facets (combined width of eyes subequal with distance between them). Antennae much shorter than head breadth, their club comprising about 3/8 total antennal length and covered with dark and stout, bluntly pointed setae. Terminal segment of labial palpi markedly wider than long. Pronotum subquadrangular, nearly parallelsided, with subvertically sloping sides,fore and hind corners rounded and unprojecting. Elytra with steeply sloping sides and almost transversely truncate apices, about 1 1/7 times as long as combined width. Pygidium regularly triangular, with flattened and very widely rounded, almost truncate apex. Distance between mid coxae subequal and that between hind ones about 1.5 times broader than that between fore coxae. Prosternal process moderately medially curved between coxae and dilated before its transverse apex which strongly approaches mesosternal surface. Metasternum convex with an angularly excised hind edge between coxae. Epipleura narrower than antennal club. Fore and mid tibiae somewhat narrower than antennal club (mid

one with convex outer edge), hind much narrower; fore tibia with rather prominent crenulation. Femora with convex fore and hind edges, fore and mid ones twice but hind one 2.5 times as wide as corresponding tibiae. Fore tarsus 2/3 as wide as fore tibia, mid and hind tibiae a little narrower, claws narrow and slightly bulbous at base. Ovipositor moderately sclerotized.

Diagnosis: This new species is well diagnosed after the above key. It has a peculiar labrum with a shallow medial emargination, combined width of eyes subequal to distance between them, truncate apex of prosternal process and unicolored bright reddish body.

Bionomy: The holotype has been captured in the middle of April, probably in mountain forest at low elevations.

Distribution: This species is known only from its type locality near Kuala Lampur (Malaysia, Selangor).

Etymology: The Latin name of this new species means „the most shiny".

Taeniolinus parvus new species

Figs. 685-691; Map 18, b

Material -

Sri Lanka: holotype, male (ZML) - „Sarabagamuwa, Prov. Kitulgala, 21 mls N Ratnapura, 17.III.62", „At light", „Brinck-Andersson-Cederholm".

Description of holotype (male): Length 1.9, breadth 0.7, height 0.4 mm. Moderately convex dorsally and ventrally; unicoloured straw reddish; dorsum with a moderate and the underside with very expressed shine; dorsum with fine, moderately dense, slightly conspicuous yellowish hairs, 1.5 times longer than the distance between their roots, and the underside with denser but yet less conspicuous hairs. Head and pronotal surface with shallow indistinct punctures, about as large as

eyes facets, interspaces between them much narrower than one puncture diameter, finely and densely microreticulated (not so conspicuous to form a rasp-like surface). Elytral surface about as that on head and pronotum, but with interspaces almost as broad as one puncture diameter, with more distinct dense microreticulation. Surface of pygidium with scarcely visible punctation, and extremely dense and conspicuous microreticulation. Surface of ventral sclerites with unvisible punctures, with more or less conspicuous and dense cellular microreticulation. Head subdepressed, 2/3 as long as the distance between eyes. Labral lobes moderately projecting anteriorly. Antennae markedly shorter than head broad, their club composing a third of total antennal length. Pronotum rather vaulted with steeply sloping sides and scarcely explanate lateral edges. Elytra rather long, about 1 and 1/3 as long as their combined width, with steeply sloping sides, suboblique apices. Pygidium with very widely rounded and flattened apex. Last labial palpomere slightly longer than wide at truncate apex. Prosternal process strongly medially curved and very widened before its apex strongly approached to the surface of mesosternum and with a tranversely truncate hind edge. The distance between mid coxae subequal and that between hind ones almost twice broader than that between fore coxae. Metasternum rather convex, with weak medial depression and almost straight hind edge between coxae. Epipleura slightly wider than antennal club. Tibiae moderately developed, subtriangular, much narrower than antennal club, mid ones with sparse and short spines along their outer edge. Fore and mid femora about twice, and hind ones, more than 3 times wider corresponding tibiae. Fore tarsi about 3/4 as wide as corresponding tibiae, mid and hind ones much narrower; rather narrow tarsal claws not long. Aedeagus moderately sclerotized.

Diagnosis: This new species can be diagnosed due to the following characters: comparatively smaller body size, fine but conspicuous microreticulation on interspaces between punctures on dorsum and weak paramedial apical brushes of anal sclerite of male.

Bionomy: The holotype of this species has been captured in March, probably in mountain forest at lower elevations.

Distribution: This species is known only from its type locality in Sri Lanka: Sarabagamuwa (Province Kitulgala, northern of Ratnapura).

Etymology: The name of this new species is created from the Latin „parvus" (small, little, slight, trivial, insignificant).

Taeniolinus spinigerus new species

Figs. 567-576; Map 18, c

Material -
Malaysia or **Indonesia**: **holotype**, male (TMB) - „Borneo, leg. Xàntus", „305, 271", „*Epuraea spinigera* n. sp. Det. O. Sjöberg".

Description of holotype (male): Length 2.8, breadth 1.1, height 0.7 mm. Strongly convex dorsally and ventrally; bright reddish; moderately shiny; dorsum glabrous and underside with very short, hardly conspicuous hairs. Head, pronotal and elytral surfaces with distinct and deep punctures, about as large as eye facets, interspaces between them 1/4-1/3 puncture diameter, cellularly and smoothly microreticulated. Surface of uncovered tergites and hypopygidium somewhat similar to that on head, pronotum and elytra, but with denser and somewhat smaller punctures and conspicuously microreticulated interspaces between them. Surface of metasternum and ventrite 1 with punctures as large as those on uncovered tergites and hypopygidium, interspaces between them with fine and cellular, partly smooth microreticulation. Surface of prosternum with very reduced punctation and alutaceous interspaces between them. Head flattened, as long as distance between extremely large eyes composed of very large facets (combined width of eyes 1.5 times less than distance between them). Antennae much shorter than head breadth, their club comprising about 1/3 total antennal length and covered with light, fine and acute setae. Terminal labial palpomeres markedly narrower to apex, somewhat longer than wide. Pronotum subquadrangular, nearly parallelsided, with subvertically sloping sides, fore and hind corners rounded and unprojecting. Elytra with steeply sloping sides and almost transversely truncate apices, about 1 1/7 times as long

as combined width. Pygidium regularly triangular, with truncate apex, from under which an acute apex of anal sclerite is moderately projecting posteriorly. Distance between mid coxae subequal and that between hind ones about 1.5 times broader than that between fore coxae. Prosternal process rather strongly medially curved between coxae and dilated before its widely rounded apex which strongly approaches the mesosternal surface. Metasternum convex with angularly excised hind edge between coxae. Epipleura as wide as antennal club. Fore and mid tibiae slightly narrower than antennal club, but hind much narrower; fore tibia with very fine crenulation along outer edge. Femora with convex fore and hind edges, fore and mid ones twice but hind one 2.5 times as wide as corresponding tibiae; mid femur with an angular protuberance at distal half of hind edge. Fore tarsus 2/3 as wide as fore tibia, mid and hind tibiae a little narrower, claws narrow and slightly bulbous at base. Aedeagus well sclerotized.

Diagnosis: This new species is diagnosed after the above key. Dorsum is without visible pubescence, somewhat less convex, with punctures more dense and smaller; combined width of eyes 1.5 times less than distance between them; prosternal process moderately widened before truncate apex; elytra about 1 1/7 times as long as combined width; terminal labial palpomeres markedly narrower to apex, somewhat longer than wide. This new species has peculiar male genitalia and characters of secondary sexual dimorphism.

Bionomy: There is no bionomic information on the label under the studied specimen (holotype).

Distribution: This species is known only from its type locality: Kalimantan without any further data of geographic localization of the holotype.

Etymology: The Latin name of this new species is formed from „spina" (rib, edge, thorn, prickle) and „gero" (to carry, to bear, to wear).

XV. Genus *Carpocryraea* new genus

Type-species: *Carpophilus familiaris* Grouvelle, 1897.

Description: Body oval, moderately convex dorsally and ventrally, with more or less even integument. Coloration reddish with darkened areas (brownish to black) or almost unicoured black. Body covered with more or less uniform and more or less distinct and coarse punctation; interspaces between punctures usually alutaceous or somewhat smooth. Dorsum glabrous or finely pubescent; underside with more or less uniform, fine short and not dense hairs. Labrum with a comparatively deep medial excision. Last labial palpomere elongate and narrowed to apex. Antennae moderately long and with 3 last segments simply clubbed (compact formation). Pronotum and elytra with sides almost always distinctly bordered and unexplanate. Prosternal intercoxal process rather narrow and moderately curved along coxae and with a rhomboid apex. Mesosternum slightly deepened (excavate) in comparison with a remainder of underside. Elytra leaving uncovered pygidium and at least a part of preceding tergite. Characters of sexual dimorphism more usually manifest in structure of legs (shape of tibiae or also femora and in width of fore tarsi). Anal sclerite moderately far projecting beyond truncate pygidial apex. Aedeagus feebly sclerotized and of generalized type. Ovipositor with simple (generalized) configuration of sclerites or with forked apex and displaced styli.

Diagnosis: This genus is proposed for two species formerly described in the genus *Carpophilus* Erichson, 1843, which share some similarity in appearance but are very distinct in genital and other features. This group differs from other groups of the tribe in much wider body (with some resemblance to some representatives of the subgenus *Epuraea (Micruria)* - see above), pronotum strongly narrowed to apex and slightly arched elytral sides. Besides this, species of *Carpocryraea* new genus are characterized by reduction of pubescence, rather large eyes composed of comparatively large facets (nearly as those in *Raspinotus schawalleri* new species and species of *Taeniolinus* new genus), steeply sloping and unexplanate sides of pronotum and elytra, elytra about twice longer than pronotum, comparatively small and elongate oval

antennal club, vertically abrupt apex of prosternal process and character of sexual dimorphism in shape of legs (mainly in fore tarsi, fore and mid tibiae). It can be easily diagnosed according to the characters given in the above key to genera.

Bionomy: General appearance of the known species of this genus (in particular large eyes composed of comparatively large facets) suggest that they could have a open mode of life, could be, similar to *Epuraea (Haptoncurina)*, *E. (Haptoncus)* and other groups of the subfamily associated with flowers and decaying fruits of trees and bushes. According to the labels under museum specimens studied for this work, the imagines of species of this genus occur in mountain forest at elevations mostly about 2000 m above sea level (rarely lower than 1000 m) and seem to be active during the year round.

Composition and distribution: Except the type-species, only *Carpophilus Modiglianii* Grouvelle, 1997 is included in this new genus. Both species are mostly recorded from the eastern part of the Indo-Malayan region [Myanmar (Burma); Malaysia, Borneo; Indonesia, Sumatra, New Guinea], although *C. familiaris* is known also from Darjeeling.

Etymology: The name of this new genus is formed from the generic names *Carpophilus (Carpo-philus*; greek „carpos" - fruit) and *Epuraea* (*Epu-raea*) as well as greek „cryptos" (hidden, concealed, secret, clandestine).

Key to species of genus *Carpocryraea* new genus from the Himalayas, Indochina and adjacent territories

1 a. Pronotum with hind corners distinctly projecting posteriorly and forming shallow emarginations along base; prosternal process strongly curved along fore coxae; dorsum with interspaces between punctures more or less distinctly microreticulated; body covered with fine and slightly conspicuous hairs, scarcely longer than distance between their roots. Male: fore and mid tibiae slightly curved;

hind femur with nearly straight hind edge. Female: ovipositor with simple apex. 2.2-2.6 mm. Figs. 577-588. India, Darjeeling; Myanmar (Burma), Tenasserim ..... *C. familiaris* (Grouvelle, 1897)

1 b. Pronotum with widely rounded hind corners and gently convex basal edge; prosternal process moderately curved along fore coxae; dorsum with interspaces between punctures smooth or smoothly microreticulated; dorsum glabrous; underside with fine, short and slightly conspicuous hairs. Male: fore and mid tibiae strongly curved and dilated before apex; hind femur with distinctly concave hind edge. Female: ovipositor with forked apex. 1.9-2.7 mm. Figs. 589-600. Malaysia, Borneo; Indonesia, Sumatra, New Guinea .... *C. modiglianii* (Grouvelle, 1997)

Carpocryraea familiaris (Grouvelle, 1897), **new combination**

Figs. 577-588; Map 18, d

=*Carpophilus (Carpophilus) familiaris* Grouvelle, 1897: 353 (Burma); Grouvelle, 1903a: 109 (India, Darjeeling); Grouvelle, 1913a: 86; *Epuraea (Epuraea) familiaris*: Kirejtshuk, 1994c: 126 (depository of syntypes).

M a t e r i a l -
Myanmar (Burma): 8 **syntypes** (ZISP) - „Tenasserim, M. Mooleyit, 1800-1900 m, Fea, Marzo 1887".

Addition to d e s c r i p t i o n (Grouvelle, 1897): Moderately convex dorsally and ventrally; dark brown, fore part of head, pronotal sides, prescutellar part of elytra, 1st ventrite, hypomera, epipleura and appendages reddish; moderately shiny; body covered with fine and slightly conspicuous hairs, scarcely longer than distance between their insertions. Aedeagus moderately and ovipositor weakly sclerotized.

D i a g n o s i s: See the above key.

N o t e s: The type series of this species originated from the collection of MSNG and therefore it would be reasonable to designate a lectotype among type specimens deposited in this museum. Grouvelle in his paper of 1903a mentioned this species for Darjeeling, but missed this locality in his catalogue of 1913a.

B i o n o m y: The type specimens have been collected in March at elevations 1800-2000 m above sea level, probably in mountain forest.

D i s t r i b u t i o n: This species is known only from the continental part of the Indo-Malayan region: India, Darjeeling and Myanmar (Burma), Tenasserim („M. Mooleyit" - type locality).

Carpocryraea modiglianii (Grouvelle, 1897), **new combination**

Figs. 589-600

=*Carpophilus (Carpophilus) Modiglianii* Grouvelle, 1897: 357 (Sumatra); Grouvelle, 1913a: 89.

M a t e r i a l -
total 51, including lectotype (MSNG) -
Malaysia: 1 (NMC) - „light trap sample, Upp. montane (mountain) forest, summit, Bt. Monkobo", „Borneo: Sabah, Bukit Monkobo, 51°48' N, 116°58' E, 22.VIII.1987, 1930 m, A.H. Kirk-Spriggs";
Indonesia: **lectotype** *C. modigliani*, male (MSNG), here designated - „SUMATRA, D. TOLONG, XI.1890, E. Modigliani", „*Carpophilus Modiglianii* ty. Grouv." (written by A. Grouvelle); 1 (ZISP) - „Irian Jaya: Prov. Jayawijaya, Wamena, 19.9.1991, 2500-2750 m, A. Riedel"; 4 (SMNS) - „Irian Jaya: Jayawijaya, Lariel (pr. Langda), 26.8.1992, 2200-2600 m, A. Riedel"; 36 (SMNS, ZISP) - „Irian Jaya: Jayawijaya, Landfa, 2100-2300 m, 27-28.8.1992, 2200-2600 m, A. Riedel"; 1 (SMNS) - „Irian Jaya: Jayawijaya, Bommela, 30.8-1.9.1992, ca. 1750 m, A. Riedel"; 2 (SMNS) - „Irian Jaya: pr. Manok-wari, Ransjkj Anggi, 26.8.1991, 1850-2050 m, A. Riedel"; 3 (SMNS, ZISP) - „Irian Jaya: Baliem-Tal, Jiwika, 1700-2300 m, 1-2.9.1992, A. Riedel"; 2

(SMNS, ZISP) - „Irian Jaya: Jayapura, Santani, Cyclops Mts., 19-21.9.1992, 300 m, A. Riedel".

Addition to description (Grouvelle, 1903): Moderately convex dorsally and ventrally; dark brown to black, fore part of head, pronotal sides, prescutellar part of elytra, abdomen, hypomera, epipleura and appendages light reddish (often elytra almost entirely reddish or sometimes body black, except reddish abdominal apex and appendages, and rarely unicoloured reddish); strongly shiny; dorsum glabrous; underside with fine, short and slightly conspicuous hairs. Aedeagus moderately and ovipositor heavily sclerotized.

Diagnosis: This species is diagnosed after the above key. Ovipositor of *C. modiglianii* is very similar to that in some species of *Taeniolinus* new genus and an undescribed Australian genus.

Bionomy: The imagines of this species have been collected at elevations mostly about 2000 m above sea level and rarely lower than 1000 m, within August-September and in November, probably in mountain forest.

Distribution: This species is known only from the insular part of the Indo-Malayan region: Malaysia, Borneo (Sabah, Bukit Monkobo); Indonesia, Sumatra („D. Tolong": type locality), New Guinea, Irian Jaya [Province Jayawijaya (Wamena, Lariel, Landfa, Bommela), Province Manok-wari (Ransjkj Anggi), Baliem-Tal (Jiwika), Jayapura (Cyclops Mountains near Santani)].

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INDEX

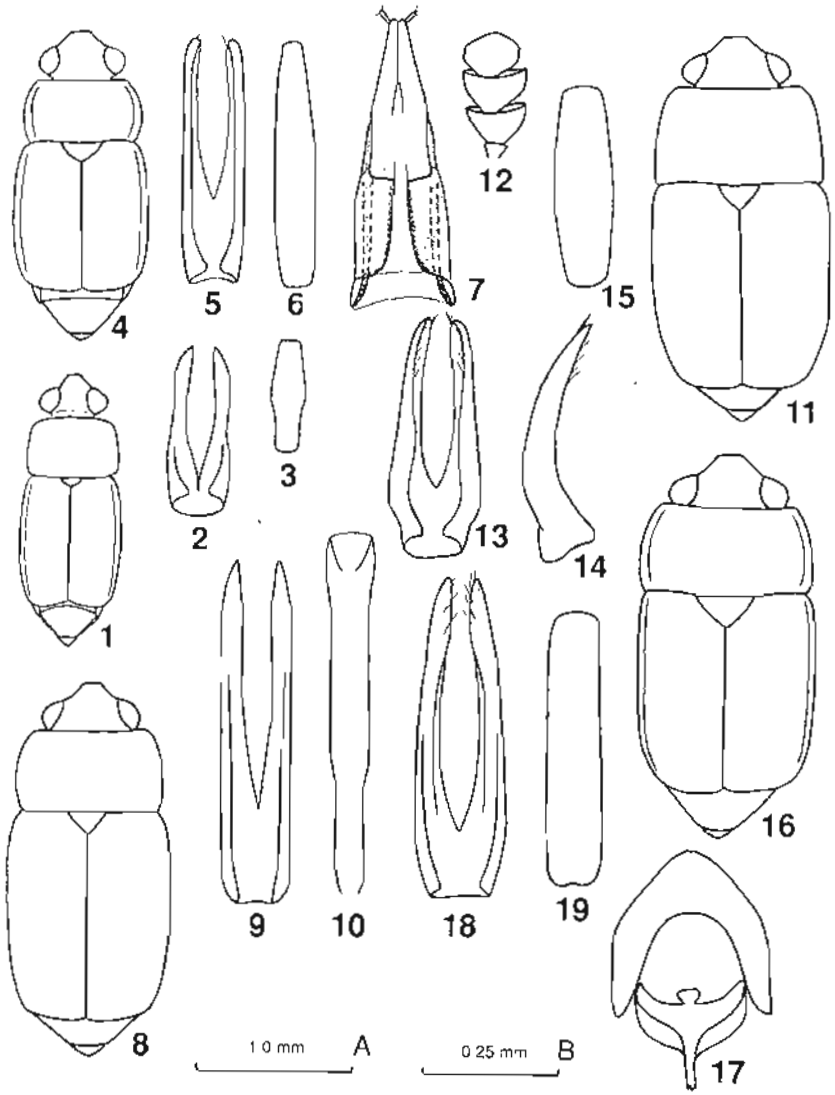
This index is restricted to the valid genera, subgenera, species and published synonyms to the latters treated in detail in this monograph (used for the species from the territory under consideration and adjacent territories). Not included are generic names used only for comparison and diagnosis, as well as suprageneric taxa, morphological characters, fungall and plant taxa. New generic and species taxa are printed in **bold** face with *italic* letters. Other generic and specific names are printed in *italic*. All names of species (valid and synonymous) are referred in the current combination.

ILLUSTRATIONS

Figs. 1-19. Subgenus *Epuraea* (*Haptoncurina*)
(Kirejtshuk, 1987a, 1992 and orig.)

E. (H.) facetata (1-3): 1 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 2 - tegmen, ventral; 3 - penis trunk, dorsal;
E. (H.) gestroi (4-7): 4 - male body with a contour of explanate sides of pronotum and elytra, dorsal (type specimen); 5 - tegmen, ventral; 6 - penis, dorsal; 7 - ovipositor, ventral;
E. (H.) motschulskyi (8-10):
8 - male body, dorsal; 9 - tegmen, ventral; 10 - penis trunk, dorsal;
E. (H.) paulula (11-15):
11 - male body, dorsal; 12 - antennal club; 13 - tegmen, ventral; 14 - idem, lateral; 15 - penis trunk, dorsal;
E. (H.) reflexicollis (16-19):
16 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 17 - anal sclerite, ventral plate and *spiculum gastrale*, ventral; 18 - tegmen, ventral; 19 - penis, dorsal;

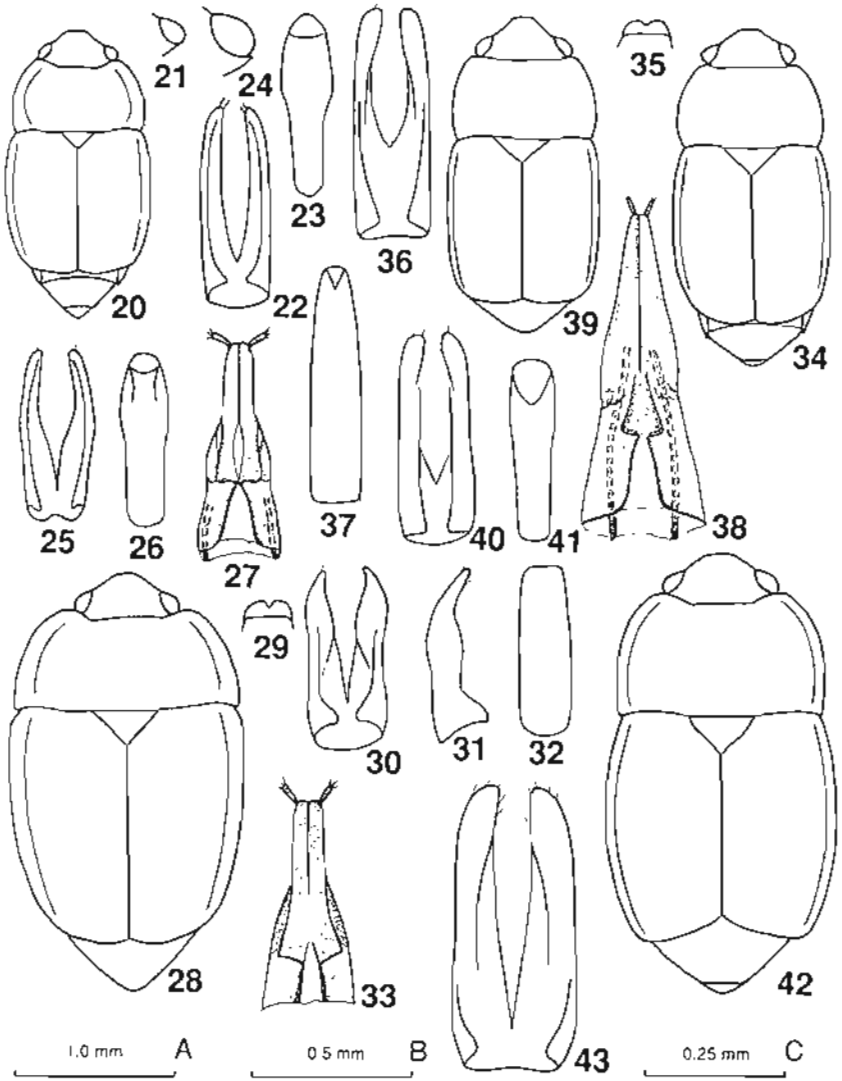
Scales: A - to figs. 1, 4, 8, 11, 16; B - to figs. 2, 3, 5-7, 9, 10, 12-15, 17-19.



Figs. 20-43. Subgenus *Epuraea* (*Haptoncus*)
(Kirejtshuk, 1992 and orig.)

E. (H.) concolor (20-27):
paralectotype of *E. (H.) concolor* (20-23): 20 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 21 - lateral part of head, dorsal; 22 - tegmen, ventral; 23 - penis trunk, dorsal; specimen from Vietnam (24-26): 24 - lateral part of head, dorsal; 25 - tegmen, ventral; 26 - penis, dorsal;
E. (H.) dubia (28-33):
lectotype (28, 29): 28 - female body with a contour of explanate sides of pronotum and elytra, dorsal; 29 - fore part of head with labrum, dorsal; specimens from Vietnam (30-33): 30 - tegmen, ventral; 31 - idem, lateral; 32 - penis trunk, dorsal; 33 - ovipositor, ventral;
E. (H.) fallax (34-41):
paralectotype of *E. (H.) fallax* (34-39):
34 - body with a contour of explanate sides of pronotum and elytra, dorsal; 35 - fore part of head and labrum; 36 - tegmen, ventral; 37 - penis trunk, dorsal; 38 - ovipositor, ventral; paralectotype of *E. (H.) murrayi*: 39 - male body with a contour of explanate sides of pronotum and elytra, dorsal; specimen from Vietnam (40, 41): 40 - tegmen, ventral; 41 - penis trunk, dorsal;
E. (H.) fanuli (42, 43):
42 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 43 - tegmen, ventral;

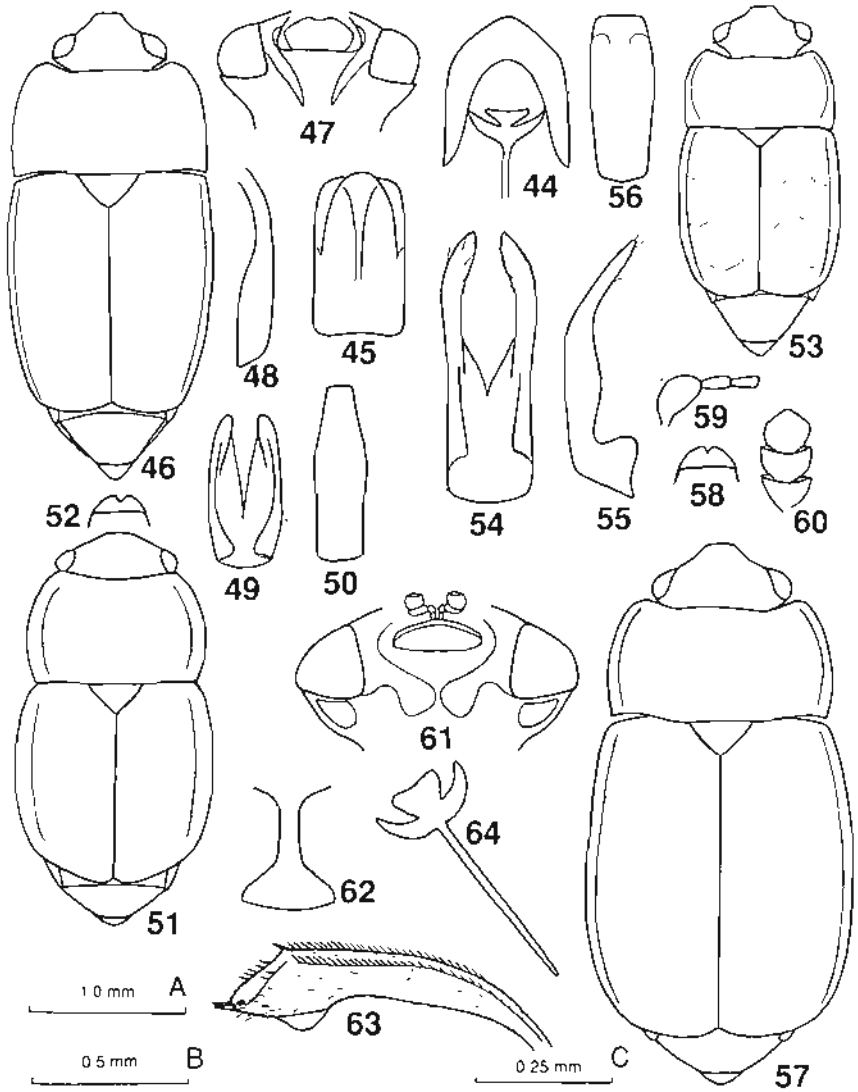
Scales: A - to figs. 20, 28, 34, 39, 42; B - to figs. 21, 24, 29, 35; C - to figs. 22, 23, 25-27, 30-33, 36-38, 40, 41, 43.



Figs. 44-64. subgenera *Epuraea* (*Haptoncus*) and *E. (Epuraea)* (Kirejtshuk, 1992 and orig.)

E. (Haptoncus) fanuli (44, 45):
44 - anal sclerite, ventral plate and *spiculum gastrale*, ventral; 45 - penis trunk, dorsal;
E. (H.) luteola (46-50):
46 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 47 - ventral surface of head with a countour of antennal grooves (paralectotype *E. (H.) testacea*); 48 - male hind tibia, dorsal; 49 - tegmen, ventral; 50 - penis trunk, dorsal;
E. (H.) maehleri new name (51, 52):
51 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 52 - fore part of head with labral lobes;
E. (H.) ocularis (53-56):
53 - male body with a contour of explanate sides of pronotum and elytra and a dotted outline of darkened (blackish) spots on elytra, dorsal; 54 - tegmen, ventral; 55 - idem, lateral; 56 - penis, dorsal;
E. (Epuraea) acea new species (57-64):
57 - body with a contour of explanate sides of pronotum and elytra, dorsal; 58 - fore part of head with labrum, dorsal; 59 - 1-3d segments of antennae; 60 - antennal club; 61 - ventral surface of head with a contour of antennal grooves, postocular fossae, mentum and labial palpi; 62 - prosternal intercoxal process, ventral; 63 - male mid tibia, dorsal; 64 - ventral plate and *spiculum gastrale* of male;

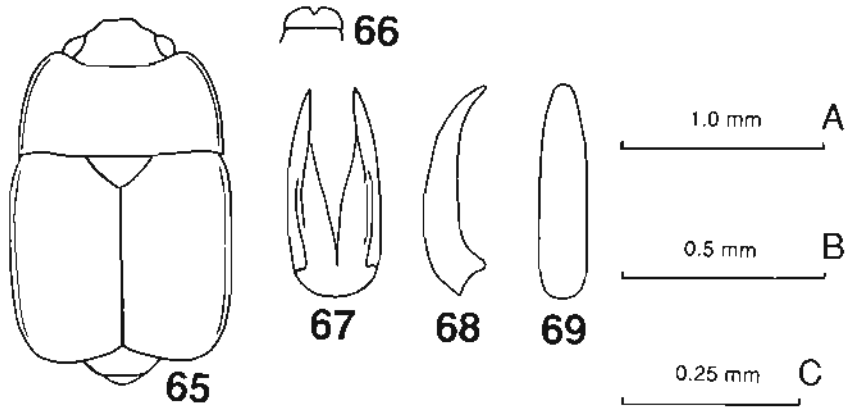
Scales: A - figs. to 46, 51, 53, 57; B - to figs. 47, 48, 52, 58-64; C - to figs. 44, 45, 49, 50, 54-56.



Figs. 65-69. *Epuraea* (*Haptoncus*) *morbosa* new species (orig.)

65 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 66 - fore edge of head and labrum; 67 - tegmen, ventral; 68 - idem, lateral; 69 - penis, dorsal;

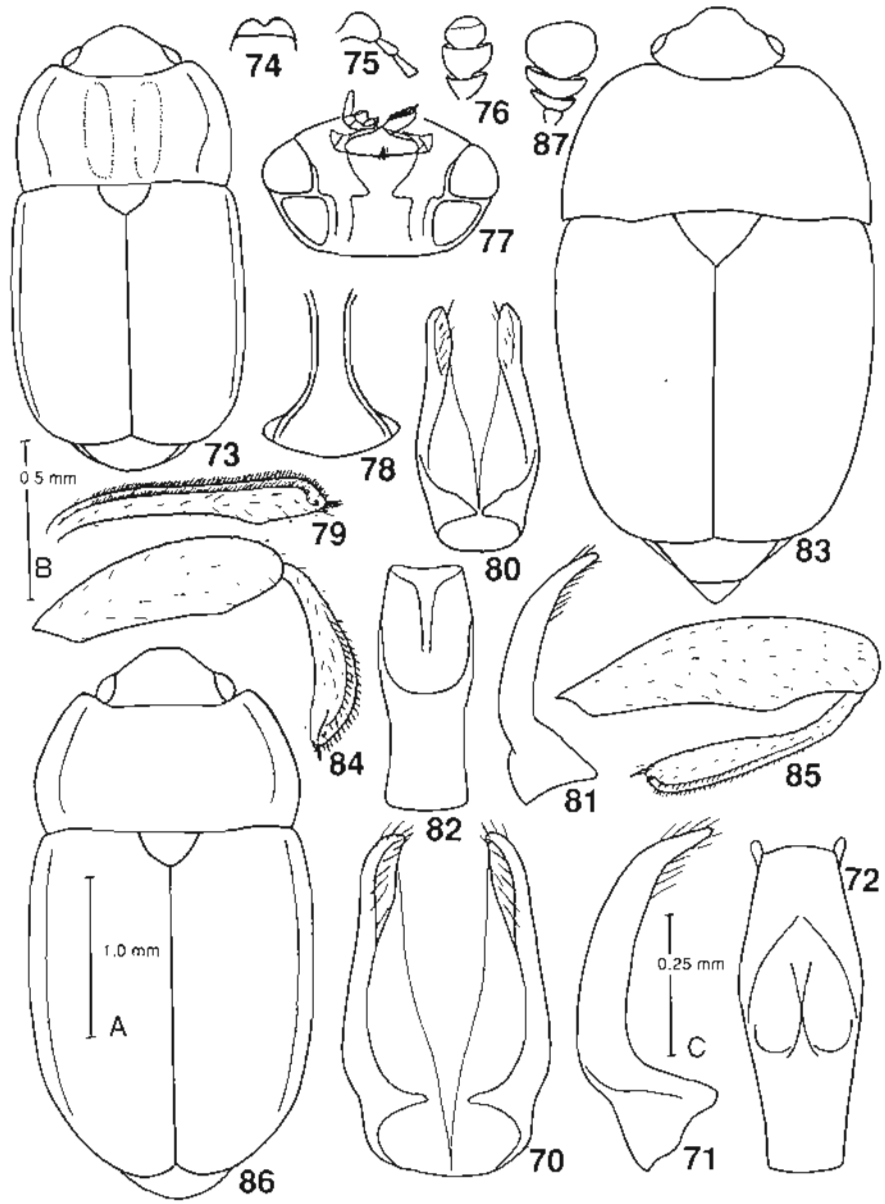
Scales: A - to fig. 65; B - to fig. 66; C - to figs. 67-69.



Figs. 70-87. Subgenus *Epuraea* (*Epuraea*)
(Kirejtshuk, 1992, 1994c and orig.)

E. (E.) acea new species (70-72):
70 - tegmen, ventral; 71 - idem, lateral; 72 - penis trunk, dorsal;
E. (E.) acelsa new species (73-82):
73 - body with a contour of explanate sides and a dotted outline of darkened paramedial stripes on pronotum, dorsal; 74 - fore part of head with labrum, dorsal; 75 - 1-3d antennal segments; 76 - antennal club; 77 - ventral surface of head with a contour of antennal grooves, postocular fossae and labial palpi; 78 - prosternal intercoxal process, ventral; 79 - male mid tibia, dorsal; 80 - tegmen, ventral; 81 - idem, lateral; 82 - penis, dorsal;
E. (E.) aduncta (83-85):
83 - male body, dorsal; 84 - male mid femur and tibia, dorsal; 85 - male hind femur and tibia, dorsal;
E. (E.) aestiva (86-87):
86 - body with a contour of explanate sides of elytra and pronotum, dorsal; 87 - antennal club;

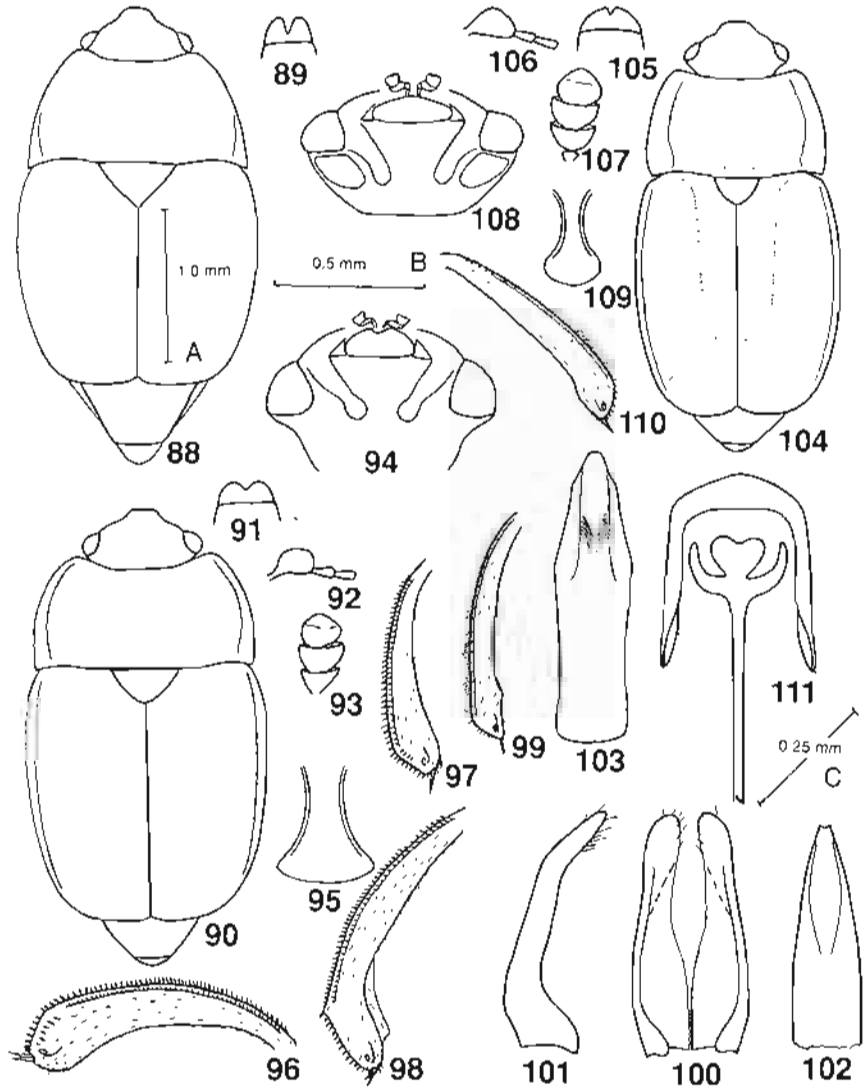
Scales: A - to figs. 73, 83, 86; B - to figs. 74-79, 84, 85, 87; C - to figs. 80-82.



Figs. 88-111. Subgenus *Epuraea* (*Epuraea*) (Kirejtshuk, 1987a, 1994c and orig.)

E. (E.) basisinuata (88-89):
88 - male body with a contour of subexplanate sides of pronotum, dorsal; 89 - fore part of head with labrum, dorsal;
E. (E.) birmanica (90-103):
90 - body with a contour of subexplanate sides of pronotum and elytra, dorsal; 91 - fore part of head with labrum, dorsal; 92 - 1-3d antennal segments; 93 - antennal club; 94 - ventral surface of head with a contour of antennal grooves; 95 - prosternal intercoxal process, ventral; 96 - male mid tibia of one of specimens from Thai Nguyên, dorsal; 97 - idem of another specimen from Thai Nguyên, dorsal; 98 - idem of paratype of *E. (E.) zurstrasseni*, dorsal; 99 - male hind tibia of the same specimen; 100 - tegmen of one of specimens from Bhutan, ventral; 101 - idem, lateral; 102 - penis trunk, dorsal of one of specimens from Bhutan; 103 - penis trunk of one of type specimens *E. (E.) zurstrasseni*, dorsal;
E. (E.) cameroni new species (104-111):
104 - male body with a contour of explanate sides and a dotted outline of darkened pronotal and elytral disks, dorsal; 105 - fore part of head with labrum, dorsal; 106 - 1-3d antennal segments; 107 - antennal club; 108 - ventral surface of head with a contour of antennal grooves, postocular fossae and labial palpi; 109 - prosternal intercoxal process, ventral; 110 - male mid tibia, dorsal; 111 - anal segment, ventral plate and *spiculum gastrale* of male, ventral;

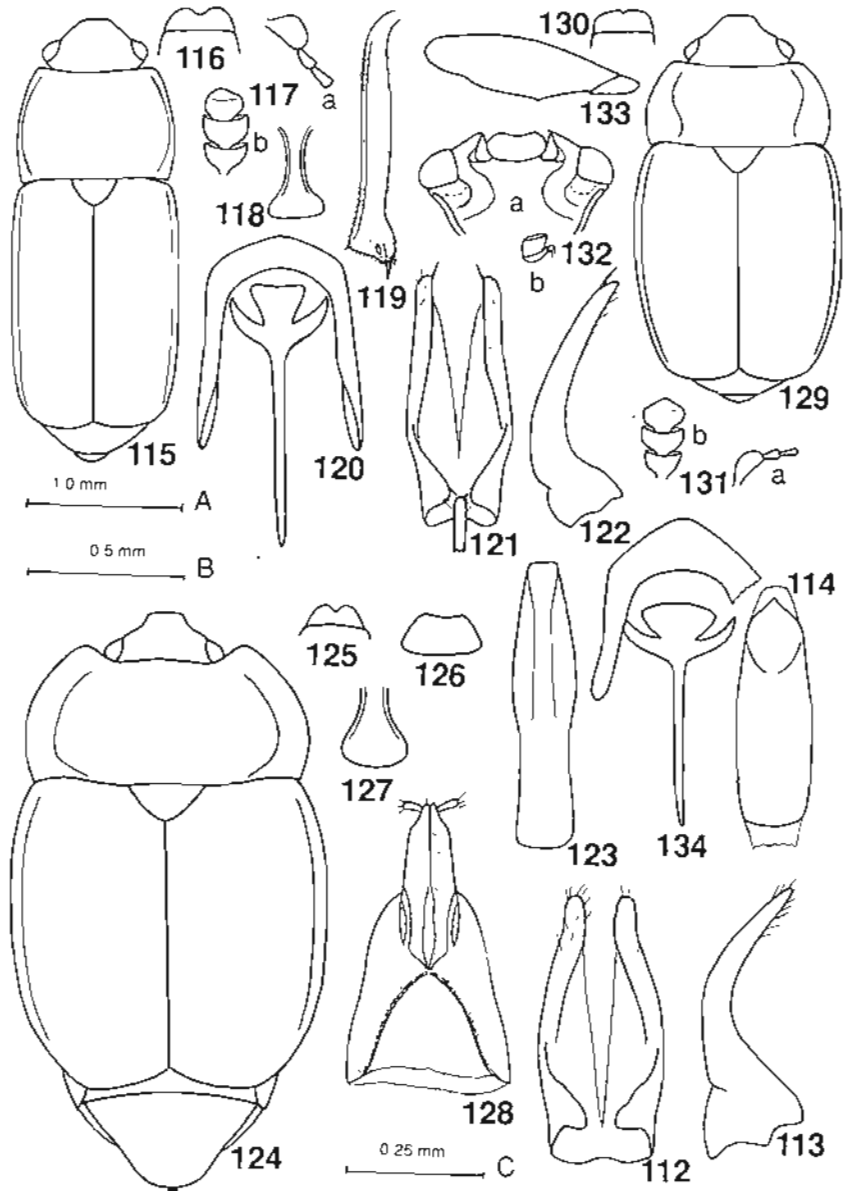
Scales: A - to figs. 88, 90, 104; B - to figs. 89, 91-95, 105-109; C - to figs. 96-103, 110, 111.



Figs. 112-134. Subgenus *Epuraea* (*Epuraea*) (orig.)

E. (E.) cameroni new species (112-114):
112 - tegmen, ventral; 113 - idem, lateral; 114 - penis trunk, dorsal;
E. (E.) championi new species (115-123):
115 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 116 - fore part of head with labrum, dorsal; 117a - 1-3d antennal segments; 117b - antennal club; 118 - prosternal intercoxal process, ventral; 119 - male mid tibia, dorsal; 120 - anal sclerite, ventral plate and *spiculum gastrale* of male, ventral; 121 - tegmen, ventral; 122 - idem, lateral; 123 - penis trunk, dorsal;
E. (E.) compacta new species (124-128):
124 - female body with a contour of explanate sides of pronotum and elytra, dorsal; 125 - fore part of head with labrum, dorsal; 126 - mentum; 127 - prosternal intercoxal process, ventral; 128 - ovipositor, ventral;
E. (E.) contraria new species (129-134):
129 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 130 - fore part of head with labrum, dorsal; 131a - 1-3d antennal segments; 131b - antennal club; 132a - ventral surface of head with a contour of antennal grooves and postocular fossae; 132b - labial palpus; 133 - male hind femur, ventral; 134 - anal sclerite, ventral plate and *spiculum gastrale* of male, ventral;

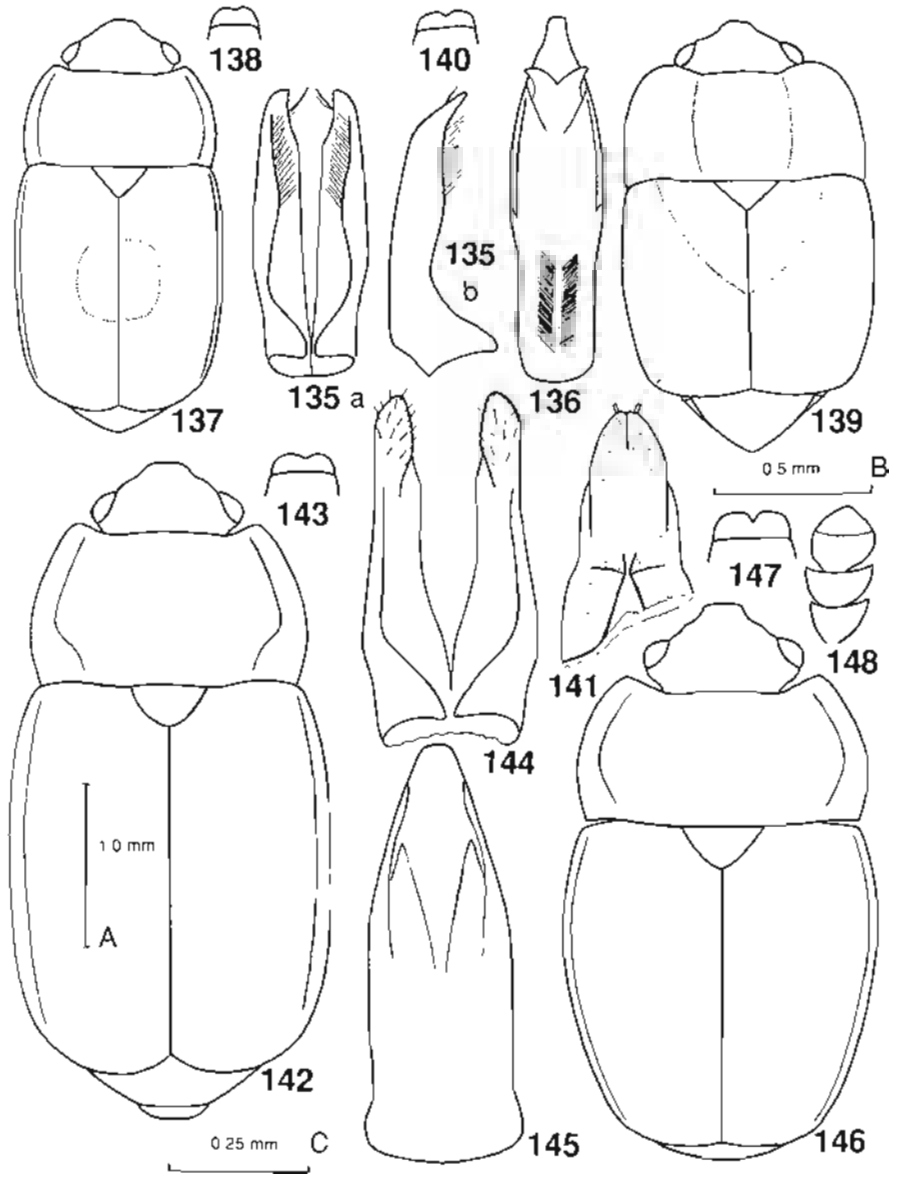
Scales: A - 115, 124, 129; B - to figs. 116-118, 125-127, 130-133; C - to figs. 112-114, 119-123, 128, 134.



Figs. 135-148. Subgenus *Epuraea* (*Epuraea*)
(Kirejtshuk, 1992, 1994c and orig.)

E. (E.) contraria new species (135, 136):
135a - tegmen, ventral; 135 - idem, lateral; 136 - penis, dorsal;
E. (E.) cyclops, (137, 138):
137 - female body with a contour of explanate sides of pronotum and elytra and a dotted outline of yellowish spot on elytra, dorsal; 138 - fore part of head with labrum, dorsal;
E. (E.) deterior (139-141):
139 - female body with a contour of explanate sides of pronotum and elytra and a dotted outline of darkened middle of pronotum and prescutellar elytral parts, dorsal; 140 - fore part of head with labrum, dorsal; 141 - ovipositor, ventral;
E. (E.) funeraria (142-145):
142 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 143 - fore part of head with labrum, dorsal; 144 - tegmen, ventral; 145 - penis trunk, dorsal;
E. (E.) indica, holotype (146-148):
146 - female body with a contour of explanate sides of pronotum and elytra, dorsal; 147 - fore part of frons and labrum, dorsal; 148 - antennal club;

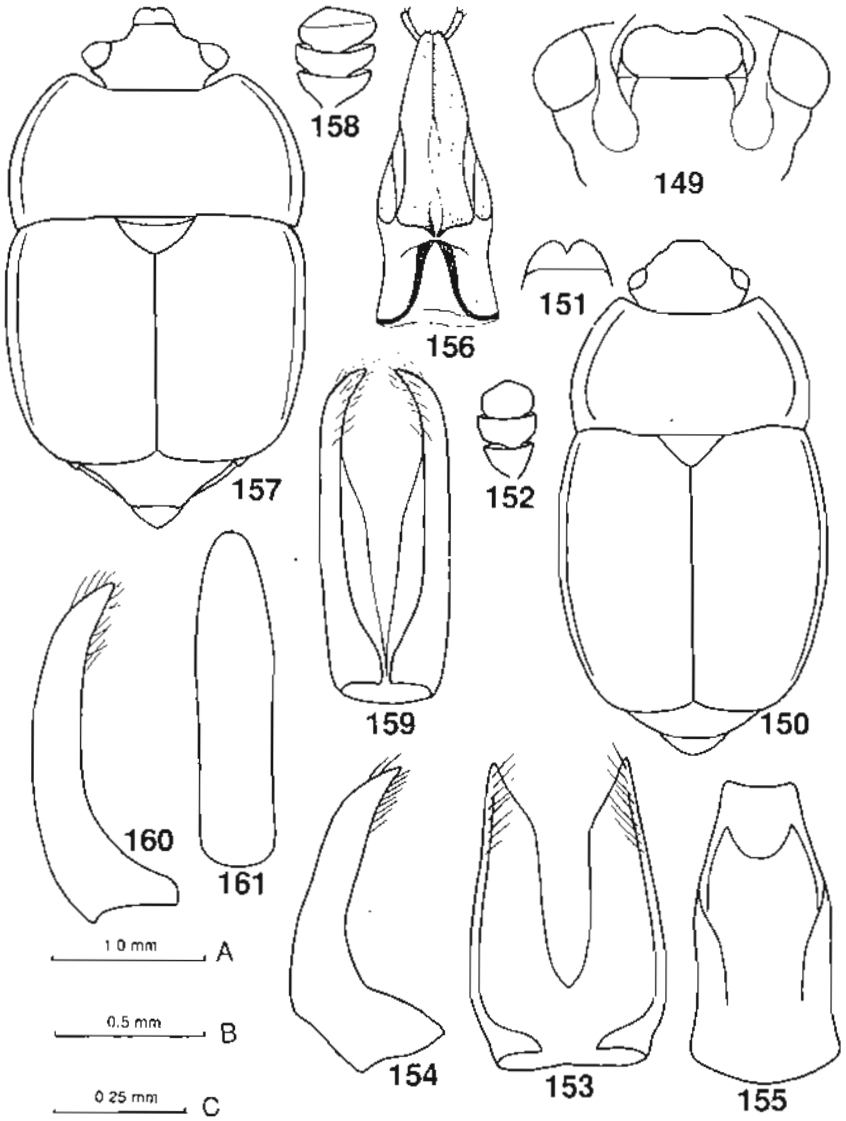
Scales: A - to figs. 137, 139, 142, 146; B - to figs. 138, 140, 143, 147, 158; C - to figs. 135, 136, 141, 144, 145.



Figs. 149-161. Subgenus *Epuraea* (*Epuraea*) (orig.)

E. (E.) indica, holotype (149):
149 - ventral surface of head with a contour of antennal grooves;
E. (E.) laeta new species (150-156):
150 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 151 - fore part of head with labrum, dorsal; 152 - antennal club; 153 - tegmen, ventral; 154 - idem, lateral; 155 - penis trunk, dorsal; 156 - ovipositor, ventral;
E. (E.) latissima (157-161):
157 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 158 - antennal club; 159 - tegmen, ventral; 160 - idem, lateral; 161 - penis trunk, dorsal;

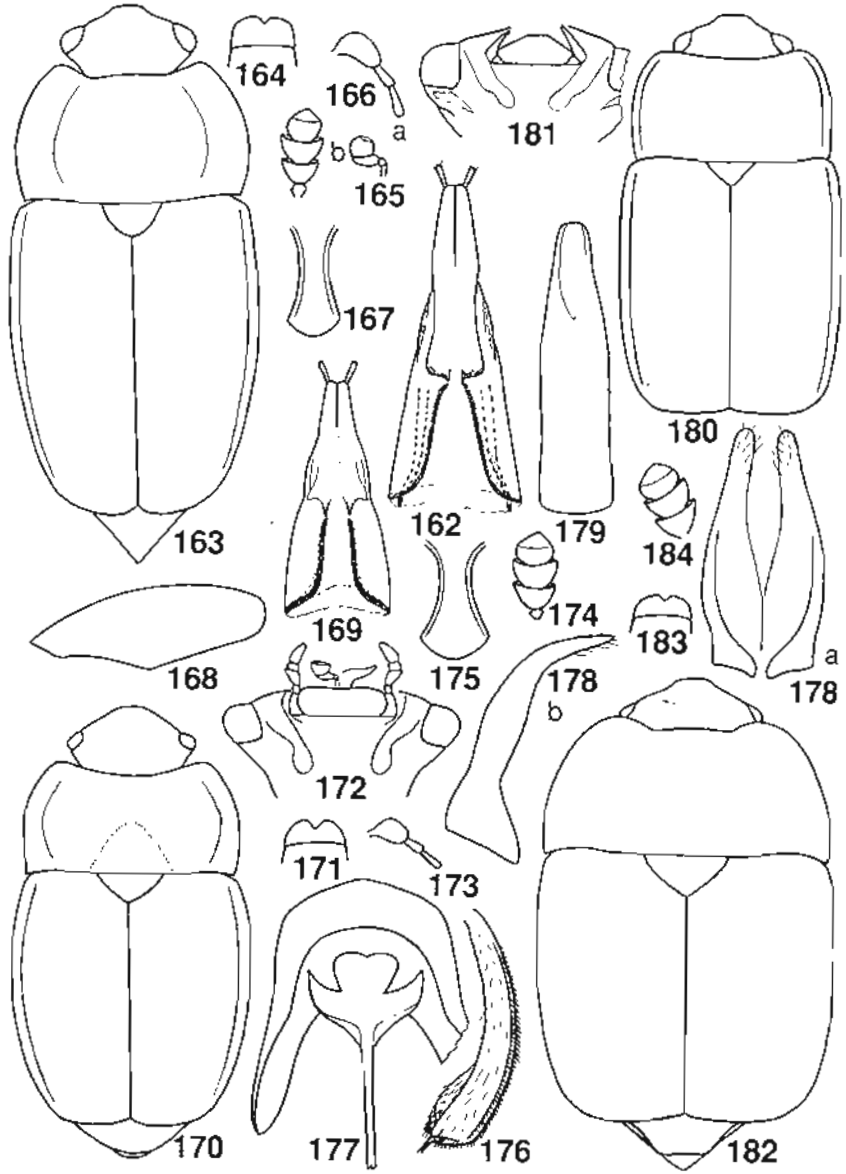
Scales: A - to figs. 150, 157; B - to figs. 149, 151, 152, 158; C - to figs. 153-156, 159-161.



Figs. 162-184. Subgenus *Epuraea* (*Epuraea*)
(Kirejtshuk, 1992; 1994c and orig.)

E. (E.) latissima (162):
162 - ovipositor, ventral;
E. (E.) longiungulata new species (163-169):
163 - female body with a contour of explanate sides of pronotum and elytra, dorsal; 164 - fore part of head with labrum; 165 - labial palpus; 166a - 1-3d antennal segments; 166b - antennal club; 167 - prosternal intercoxal process, ventral; 168 - female hind femur, ventral: 169 - ovipositor, ventral;
E. (E.) nepallica new species (170-179):
170 - male body with a contour of explanate sides of pronotum and elytra and a dotted outline of a light place at pronotal base, dorsal; 171 - fore part of head with labrum; 172 - ventral surface of head with a contour of antennal grooves, maxillar and labial palpi; 173 - 1-3d antennal segments; 174 - antennal club; 175 - prosternal intercoxal process process, ventral; 176 - mid male tibia, dorsal; 177 - anal sclerite, ventral plate and *spiculum gastrale* of male, ventral; 178a - tegmen, ventral; 178b - idem, lateral; 179 - penis trunk, dorsal;
E. (E.) pallescens (180-181):
180 - body with a contour of explanate sides of pronotum and elytra, but without abdominal apex exposed from under elytral apices, dorsal; 181 - ventral surface of head with a contour of antennal grooves and postocular fossae;
E. (E.) pliginskyi (182-184):
182 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 183 - fore part of frons and labrum; 184 - antennal club;

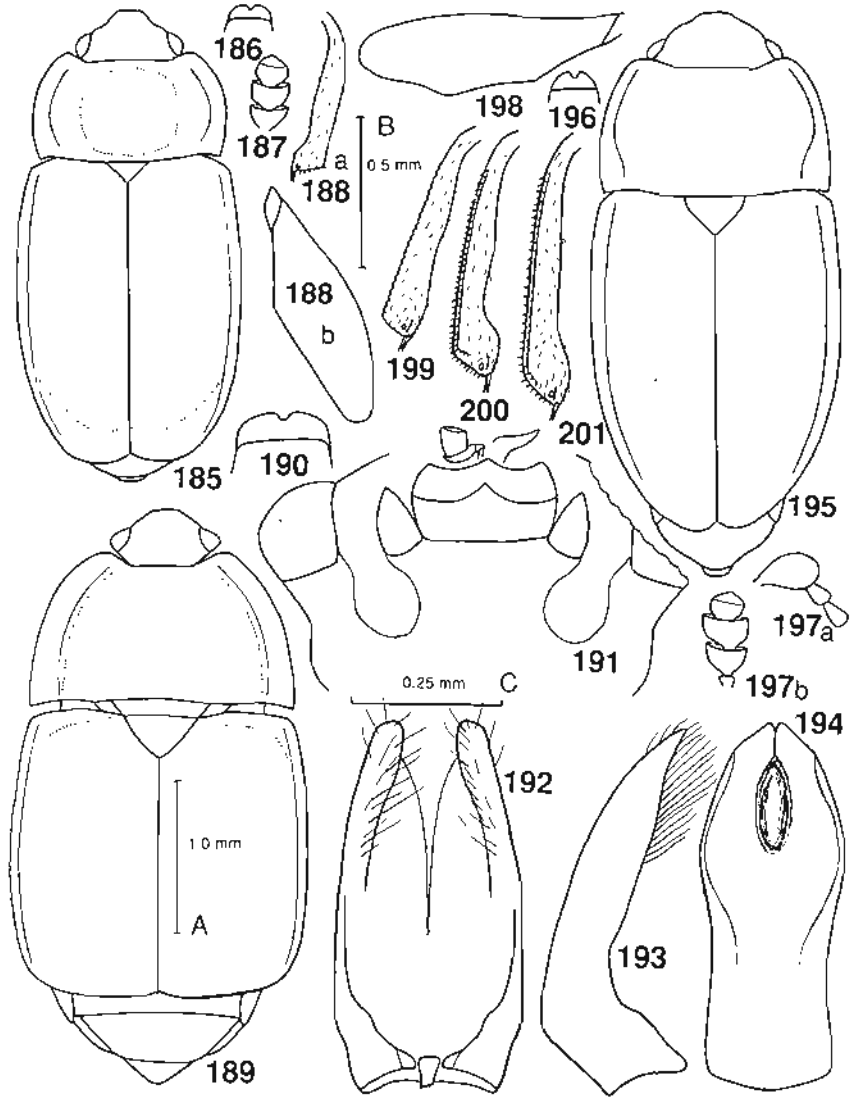
Scales: A - to figs. 163, 170, 180, 182; B - to figs. 164, 166-168, 171-176, 181, 183, 184; C - to figs. 162, 165, 169, 177-179.



Figs. 185-201. Subgenus *Epuraea* (*Epuraea*)
(Kirejtshuk, 1992; 1994c and orig.)

E. (E.) polina (185-188):
185 - male body with a contour of explanate sides and a dotted outline of darkened parts of pronotum and elytra, dorsal; 186 - fore part of head with labrum, dorsal; 187 - antennal club; 188a - male mid tibia, dorsal; 188b - male hind femur, ventral;
E. (E.) propingua (189-194):
189 - male body with a contour of explanate sides and a dotted outline of darkened parts of pronotum and elytra, dorsal; 190 - fore part of head with labrum; 191 - ventral surface of head with a contour of antennal grooves; 192- tegmen, ventral; 193 - idem, lateral; 194 - penis trunk, dorsal;
E. (E.) propria new species (195-201):
195 - male body with a contour of explanate pronotal and elytral sides, dorsal; 196 - fore part of head with labrum, dorsal; 197a - 1-3d antennal segments; 197b - antennal club; 198 - male hind femur, ventral; 199 - male fore tibia, dorsal; 200 - male mid tibia, dorsal; 201 - male hind tibia, dorsal;

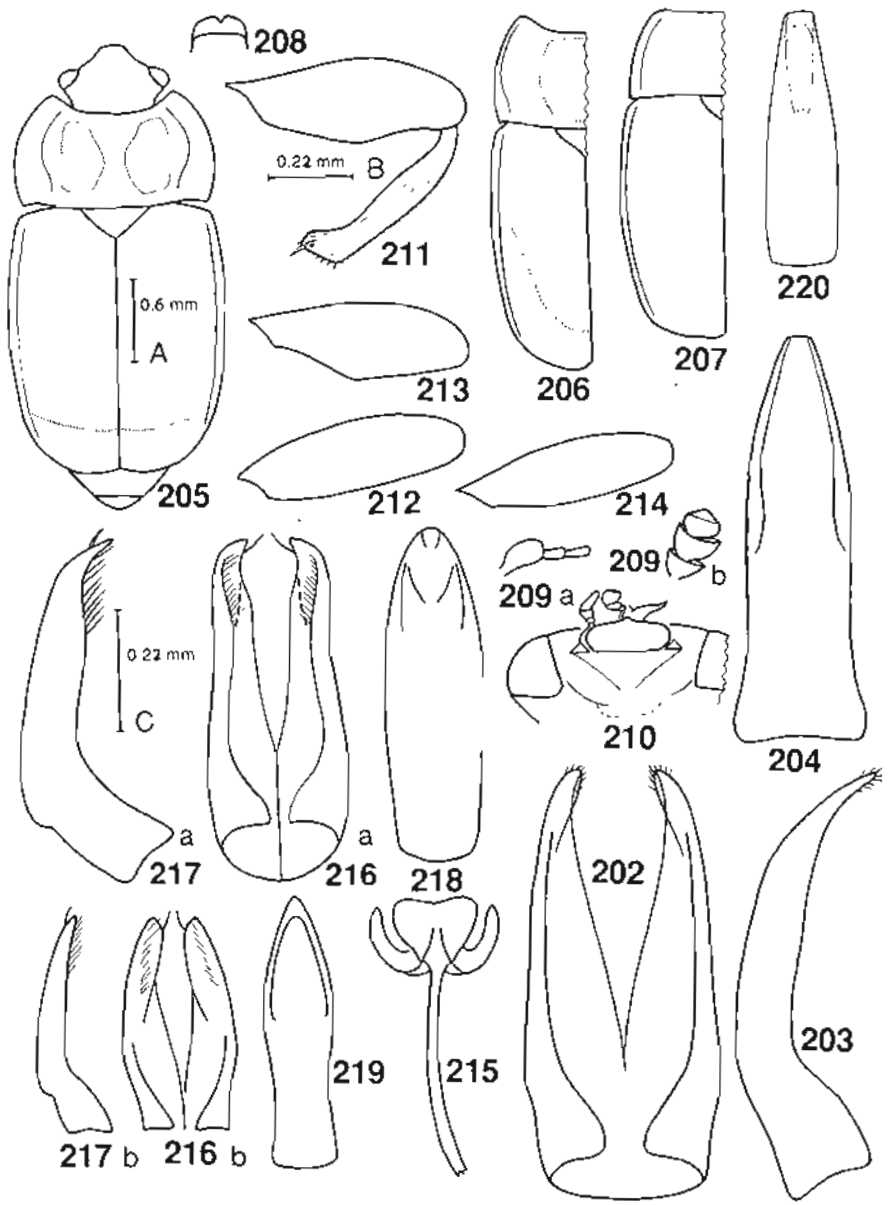
Scales: A - to figs. 185, 189, 195; B - to figs. 186-188, 190, 196-201; C - to figs. 191-194.



Figs. 202-220. Subgenus *Epuraea* (*Epuraea*)
(Kirejtshuk, 1992; 1994c and orig.)

E. (E.) propria new species (202-204):
202 - tegmen, ventral; 203 - idem, lateral; 204 - penis trunk, dorsal;
E. (E.) pumila (205-220):
205 - male body with a contour of explanate sides and a dotted outline of darkened parts of pronotum and elytra, dorsal; 206 - left half of pronotum and elytron of lectotype of *E. (E.) apicalis*, with a contour of explanate sides and a dotted outline of darkened parts, dorsal; 207 - idem of lectotype of *E. (E.) pumila*; 208 - fore part of head with labrum, dorsal; 209a - 1-3d antennal segments; 209b - antennal club; 210 - ventral surface of head with a contour of antennal grooves and palpi; 211 - male mid femur and tibia, dorsal; 212 - male mid femur, ventral; 213, 214 - male hind femur, ventral; 215 - anal sclerite, ventral plate and *spiculum gastrale* of male, ventral; 216a, 216b - tegmen, ventral (216b - lectotype of *E. (E.) apicalis*); 217a, 217b - idem, lateral (217b - lectotype of *E. (E.) apicalis*); 218, 219, 220 - penis trunk, dorsal (219 - lectotype of *E. (E.) apicalis*, 220 - lectotype of *E. (E.) pumila*);

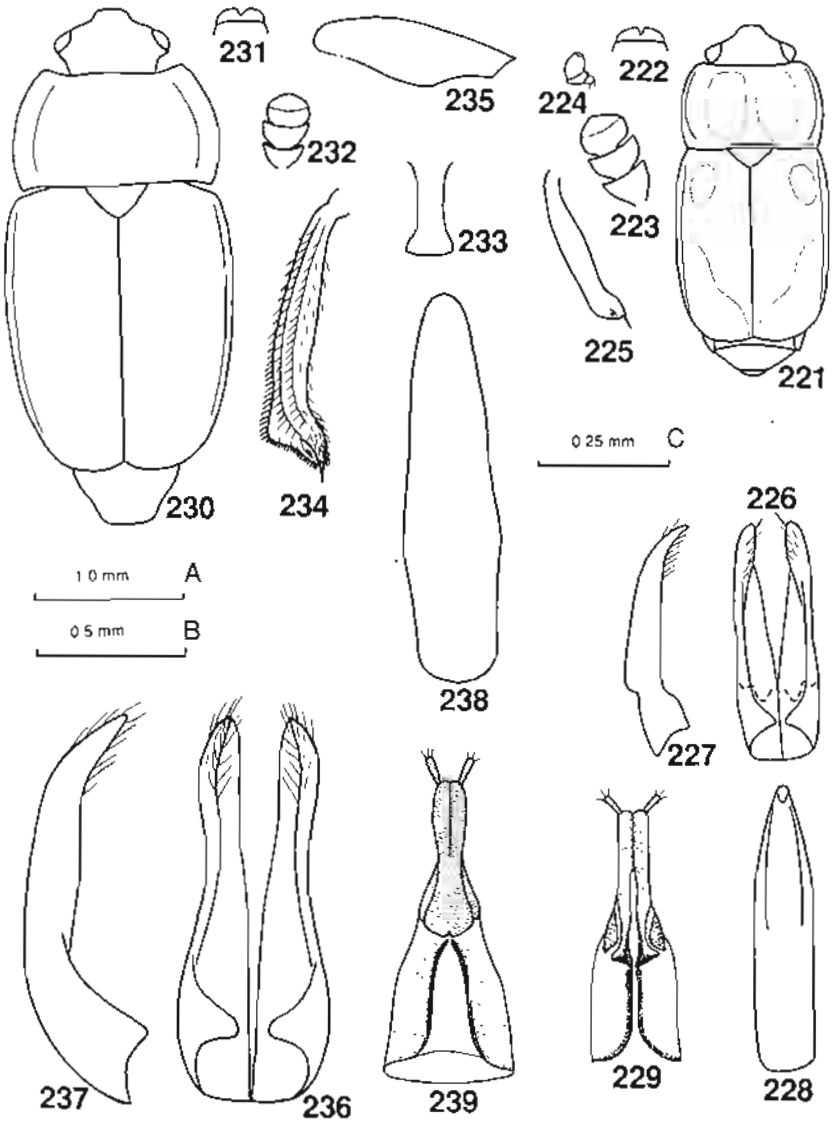
Scales: A - to figs. 205-207; B - to figs. 208-214; C - to figs. 202-204, 215-220.



Figs. 221-239. Subgenus *Epuraea* (*Epuraea*) (orig.)

E. (E.) riedeli new species (221-229):
221 - male body with a contour of explanate pronotal and elytral sides and a dotted outline of dark spots on pronotal disk and elytra, dorsal; 222 - fore part of head with labrum, dorsal; 223 - antennal club; 224 - labial palpus; 225 - male mid tibia, dorsal; 226 - tegmen, ventral; 227 - idem, lateral; 228 - penis trunk, dorsal; 229 - ovipositor, ventral;
E. (E.) simplissima new species (230-239):
230 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 231 - fore part of head and labrum, dorsal; 232 - antennal club; 233 - prosternal intercoxal process, ventral; 234 - male mid tibia, ventral; 235 - male hind tibia, ventral; 236 - tegmen, ventral; 237 - idem, lateral; 238 - penis, dorsal; 239 - ovipositor, ventral;

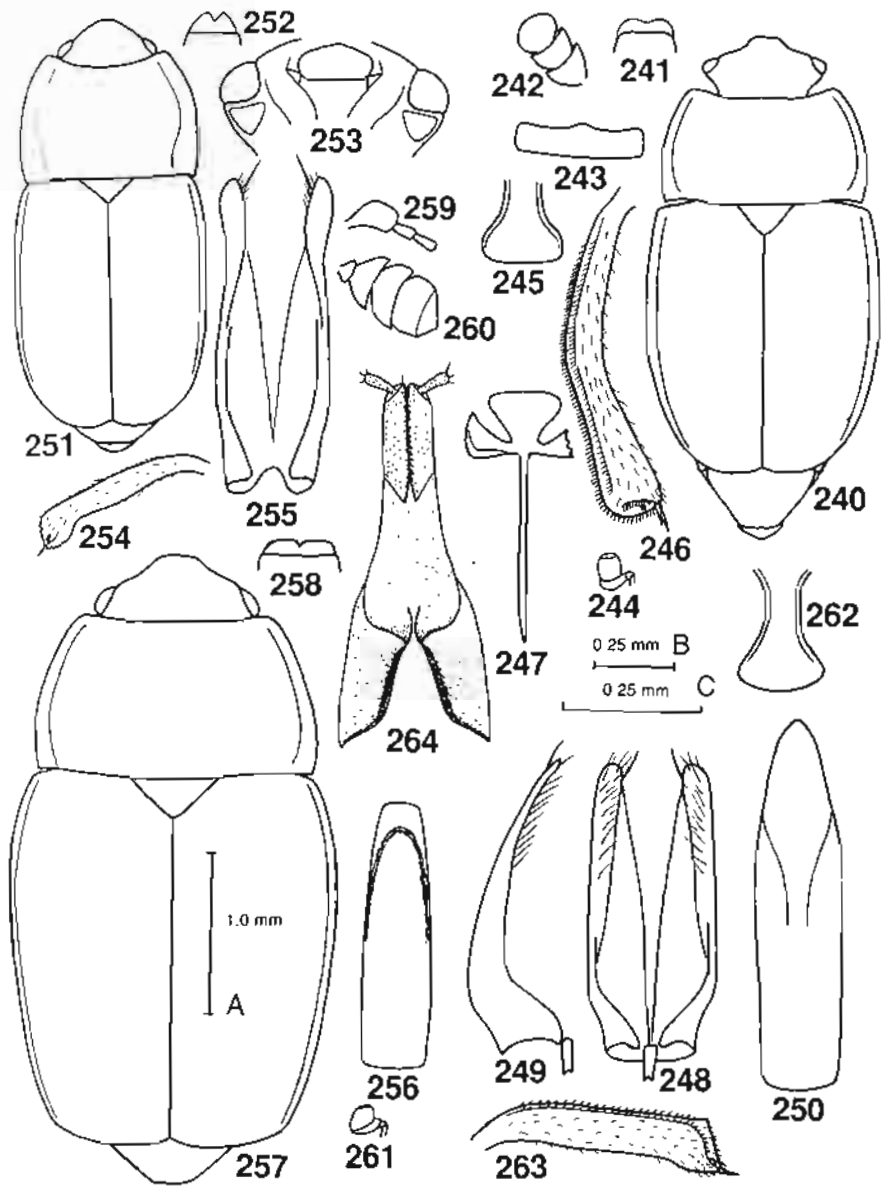
Scales: A - to figs. 221, 230; B - to figs. 222, 223, 225, 231-235; C - to figs. 224, 226-229, 236-239.



Figs. 240-264. Subgenus *Epuraea* (*Epuraea*) (orig.)

E. (E.) subnitida new species (240-250):
240 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 241 - fore part of head with labrum, dorsal; 242 - antennal club; 243 - mentum; 244 - labial palpus; 245 - prosternal intercoxal process, ventral; 246 - male mid tibia, dorsal; 247 - ventral plate and *spiculum gastrale* of male, ventral; 248 - tegmen, ventral; 249 - idem, lateral; 250 - penis trunk, dorsal;
E. (E.) tenuis (251-256):
251 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 252 - fore part of head with labrum, dorsal; 253 - ventral surface of head with a contour of antennal grooves and postocular fossae; 254 - male mid tibia, dorsal; 255 - tegmen, ventral; 256 - penis trunk, dorsal;
E. (E.) titana new species (257-264):
257 - female body with a contour of explanate sides of pronotum and elytra, dorsal; 258 - fore part of head with labrum, dorsal; 259 - 1-3d antennal segments; 260 - antennal club; 261 - labial palpus; 262 - prosternal intercoxal process, ventral; 263 - female mid tibia, dorsal; 264 - ovipositor, ventral;

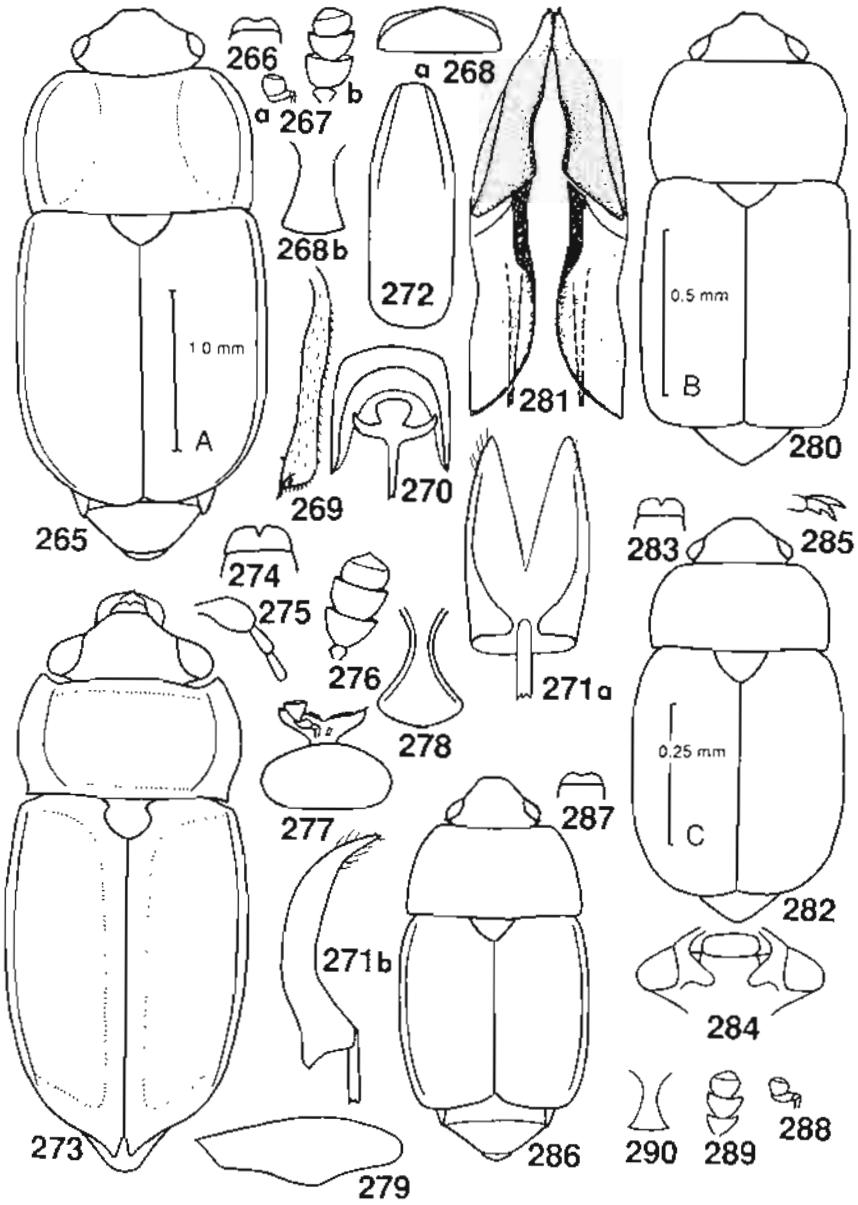
Scales: A - to figs. 240, 251, 257; B - to figs. 241-245, 252-254, 258-263; C - to figs. 246-250, 255, 256, 264.



Figs. 265-290. Subgenera *Epuraea* (*Epuraea*), *E. (Ommoraea)* new subgenus and *E. (Micruria)* (Kirejtshuk, 1990a and orig.)

E. (E.) waterhousei (265-272):
265 - male body with a contour of explanate sides pronotum and elytra, and a dotted outline of convex parts at sides of pronotum, dorsal; 266 - fore part of head with labrum, dorsal; 267a - labial palpus; 267b - antennal club; 268a - mentum; 268b - prosternal intercoxal process, ventral; 269 - mid male tibia, dorsal; 270 - anal segment, ventral plate and spiculum gastrale, ventral; 271a - tegmen, ventral; 271b - idem, lateral; 272 - penis trunk, dorsal;
E. (O.) acutocaudalis new species (273-279):
273 - female body with a contour of explanate sides and a dotted outline of darkened places of pronotum and elytra, dorsal; 274 - fore part of head with labrum, dorsal; 275 - 1-3d antennal segments; 276 - antennal club; 277 - mentum, ligula and labial palpus; 278 - prosternal intercoxal process, ventral; 279 - female fore femur, ventral;
E. (M.) accidentis (280, 281):
280 - female body, dorsal; 281 - ovipositor, ventral;
E. (M.) adolescens new species (282-285):
282 - female body, dorsal; 283 - fore part of head with labrum, dorsal; 284 - ventral surface of head with a contour of antennal grooves; 285 - tarsal claws;
E. (M.) alutidorsum new species (286-290):
286 - male body, dorsal; 287 - fore part of head with labrum, dorsal; 288 - labial palpus; 289 - antennal club; 290 - prosternal process, ventral;

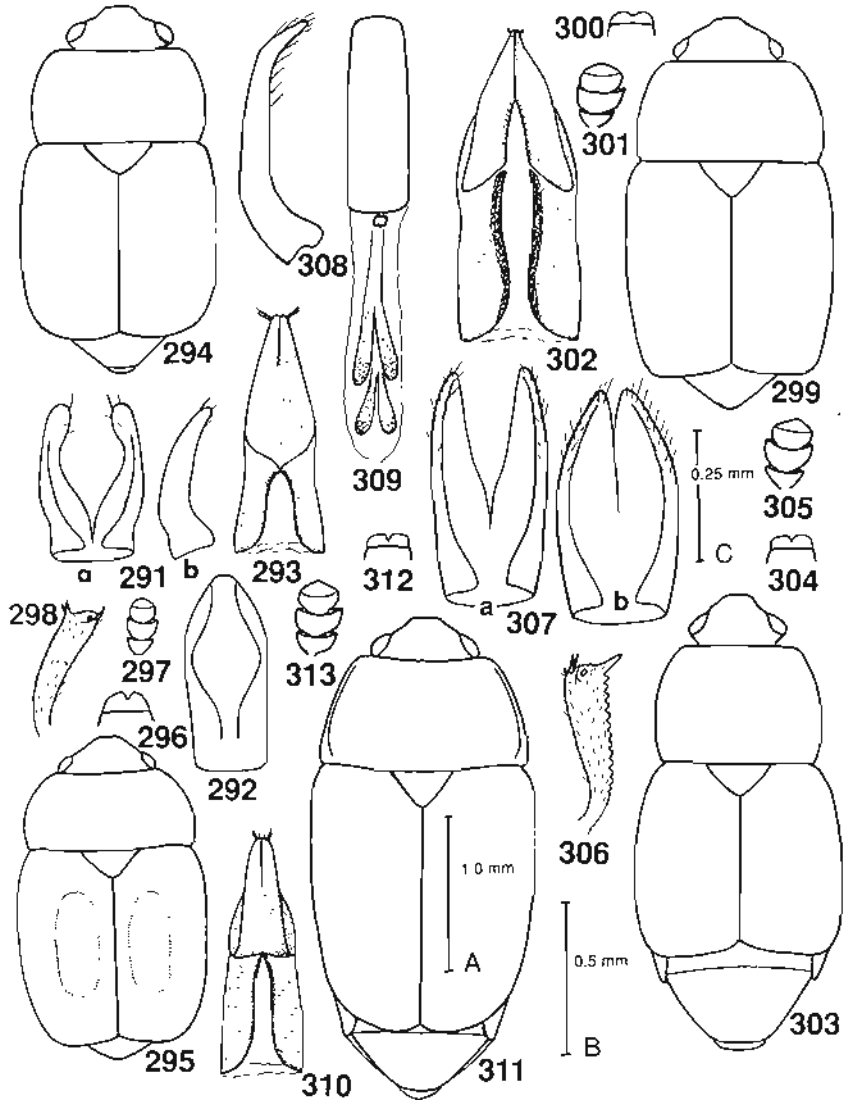
Scales: A - figs. 265, 273, 280, 282, 286; B - to figs. 266-270, 274-279, 283, 284, 287-290; C - to figs. 271, 272, 281, 285.



Figs. 291-313. Subgenus *Epuraea* (*Micruria*) (orig.)

E. (M.) alutidorsum new species (291-293):
291a - tegmen, ventral; 291b - idem, lateral; 292 - penis trunk, dorsal; 293 - ovipositor, ventral;
E. (M.) atra (294):
294 - body, dorsal;
E. (M.) biplagiata new species (295-298):
295 - female body with a dotted outline of reddish spots on elytra, dorsal; 296 - fore part of head with labrum, dorsal; 297 - antennal club; 298 - female fore tibia, dorsal;
E. (M.) bullata new species (299-302):
299 - female body, dorsal; 300 - fore part of head with labrum, dorsal; 301 - antennal club; 302 - ovipositor, ventral;
E. (M.) calcarifera new species (303-310):
303 - male body, dorsal; 304 - fore part of head with labrum, dorsal; 305 - antennal club; 306 - male fore tibia, dorsal; 307a - tegmen of specimen from Thailand, ventral; 307a - idem of specimen from Nepal, ventral; 308 - idem, lateral; 309 - penis with armature of inner sac, dorsal; 310 - ovipositor, ventral;
E. (M.) cerina (311-313):
311 - body with a contour of explanate sides of pronotum, dorsal; 312 - fore part of head with labrum, dorsal; 313 - antennal club;

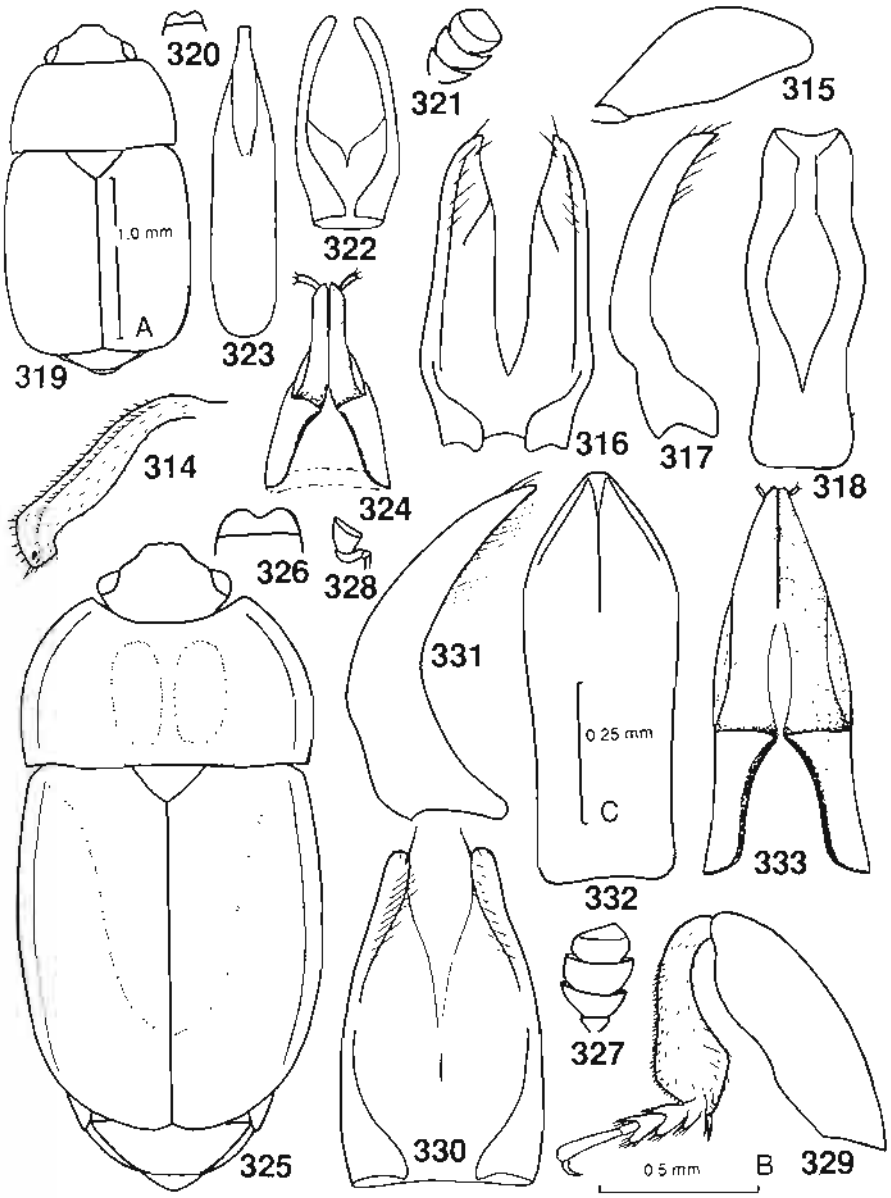
Scales: A - to figs. 294, 295, 299, 303, 311; B - to figs. 296-298, 300, 301, 304-306, 312, 313; C - to figs. 291-293, 302, 307-310.



Figs. 314-333. Subgenus *Epuraea* (*Micruria*) (orig.)

E. (M.) cerina (314-318):
314 - male mid tibia, dorsal; 315 - male hind femur, dorsal;
316 - tegmen, ventral; 317 - idem, lateral; 318 - penis trunk, dorsal;
E. (M.) consanguinea (319-324):
319 - male body, dorsal; 320 - fore part of head with labrum, dorsal;
321 - antennal club; 322 - tegmen, ventral; 323 - penis trunk, dorsal;
324 - ovipositor, ventral;
E. (M.) consobrina (325-333):
325 - body with a contour of explanate sides and a dotted outline of darkened parts on pronotum and elytra, dorsal; 326 - fore part of head with labrum, dorsal; 327 - antennal club; 328 - labial palpus; 329 - male mid leg, dorsal; 330 - tegmen, ventral; 331 - idem, lateral; 332 - penis trunk, dorsal; 333 - ovipositor, ventral;

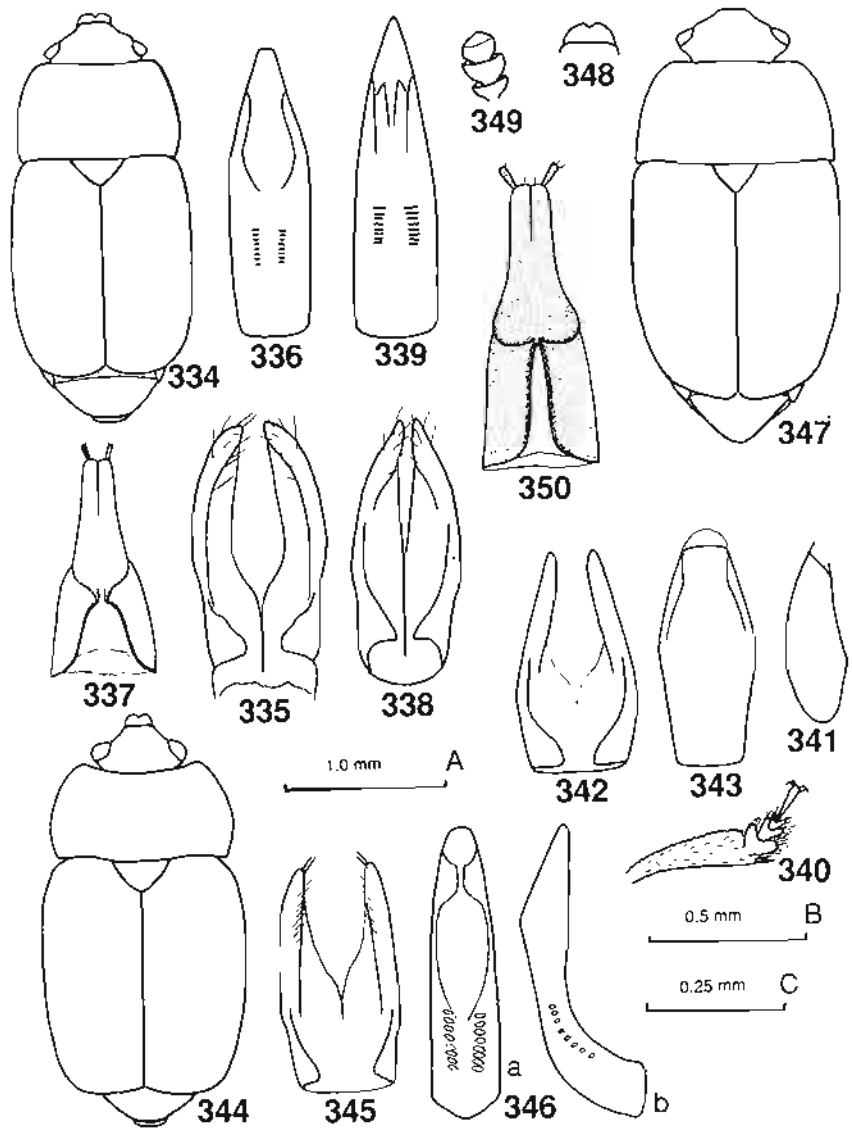
Scales: A - to figs. 319, 325; B - to figs. 314, 315, 320, 321, 326-329; C - to figs. 316-318, 322-324, 330-333.



Figs. 340-350. Subgenus *Epuraea* (*Micruria*) (orig.)

E. (M.) convexa (334-339):
syntype *E. (M.) affinis* (334-337): 334 - male body, dorsal; 335 - tegmen, ventral; 336 - penis trunk, dorsal; 337 - ovipositor, ventral;
specimen from Himachal Pradesh (338, 339): 338 - tegmen, ventral; 339 - penis trunk, dorsal;
E. (M.) grouvellei (340-343):
340 - male fore tibia and tarsus, dorsal; 341 - male mid tibia, ventral; 342 - tegmen, ventral; 343 - penis, dorsal;
E. (E.) harmandi (344-346):
344 - body, dorsal; 345 - tegmen, ventral; 346a - penis trunk with inner armature, dorsal; 346b - idem, lateral;
E. (M.) himalayaensis new species (347-350):
347 - female body, dorsal; 348 - fore part of head with labrum, dorsal; 349 - antennal club; 350 - ovipositor, ventral;

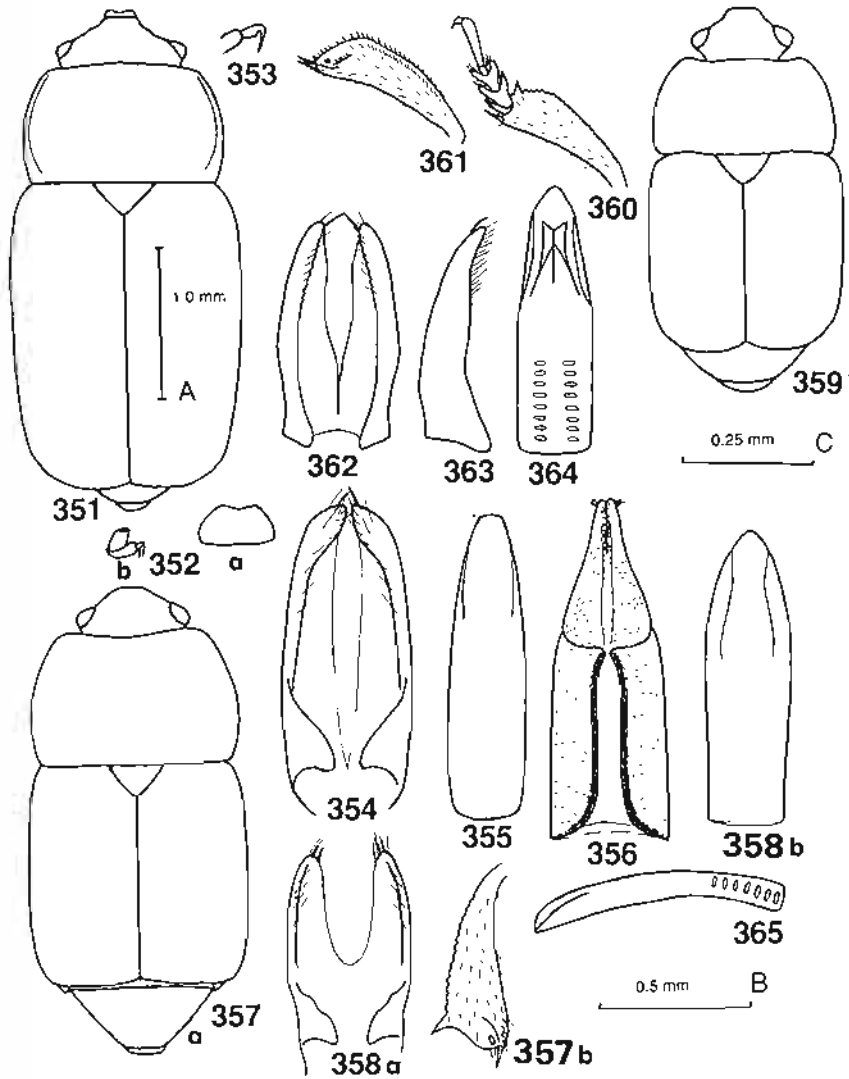
Scales: A - to figs. 334, 344, 347; B - to figs. 340, 341, 348, 349; C - figs. 335-339, 342, 343, 345, 346, 350.



Figs. 351-365. Subgenus *Epuraea* (*Micruria*)
(Kirejtshuk, 1990a and orig.)

E. (M.) insolita (351-356):
351 - male body with outline of explanate sides of pronotum, dorsal; 352a - mentum; 352b - labial palpus; 353 - tarsal claw; 354 - tegmen, ventral; 355 - penis, dorsal; 356 - ovipositor, ventral;
E. (M.) indochinensis (357, 358):
357a - male body, dorsal; 357b - male fore tibia, dorsal; 358a - tegmen, ventral; 358b - penis, dorsal;
E. (M.) klapperichi new species (359-365):
359 - male body, dorsal; 360 - male fore tibia and tarsus, dorsal; 361 - male mid tibia, dorsal; 362 - tegmen, ventral;363 - idem, lateral; 364 - penis, dorsal; 365 - idem, lateral;

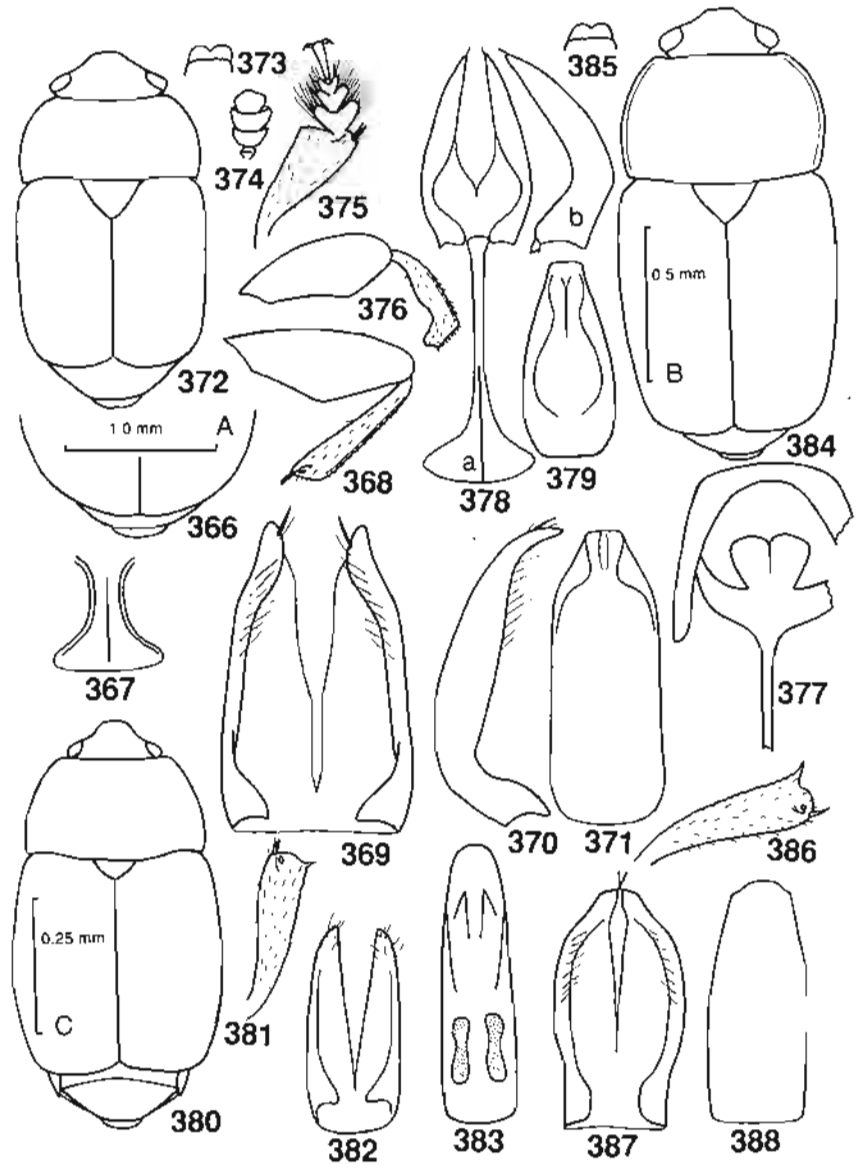
Scales: A - to figs. 351, 357a, 359; B - to figs. 352, 353, 357b, 360, 361; C - to figs. 354-356, 358, 362-365.



Figs. 366-388. Subgenus *Epuraea* (*Micruria*)
(Kirejtshuk, 1990a, 1992 and orig.)

E. (M.) kompantzevi new species (366-371):
366 - male elytral apices, dorsal; 367 - prosternal process, ventral; 368 - male mid femur and tibia, dorsal; 369 - tegmen, ventral; 370 - idem, lateral; 371 - penis, dorsal;
E. (M.) latitarsis new species (372-379):
372 - body, dorsal; 373 - fore part of head with labrum, dorsal; 374 - antennal club; 375 - male fore tibia and tarsus, dorsal; 376 - male mid femur and tibia, dorsal; 377 - anal sclerite, ventral plate and *spiculum gastrale* of male (genital capsule), ventral; 378a - tegmen, ventral; 378b - idem, lateral; 379 - penis, dorsal;
E. (M.) lisa (380-383):
380 - body, dorsal; 381 - male fore tibia, dorsal; 382 - tegmen, ventral; 383 - penis, dorsal;
E. (M.) mandibularis (384-388):
384 - body, dorsal; 385 - fore part of head with labrum, dorsal; 386 - male fore tibia, dorsal; 387 - tegmen, ventral; 388 - penis trunk, dorsal;

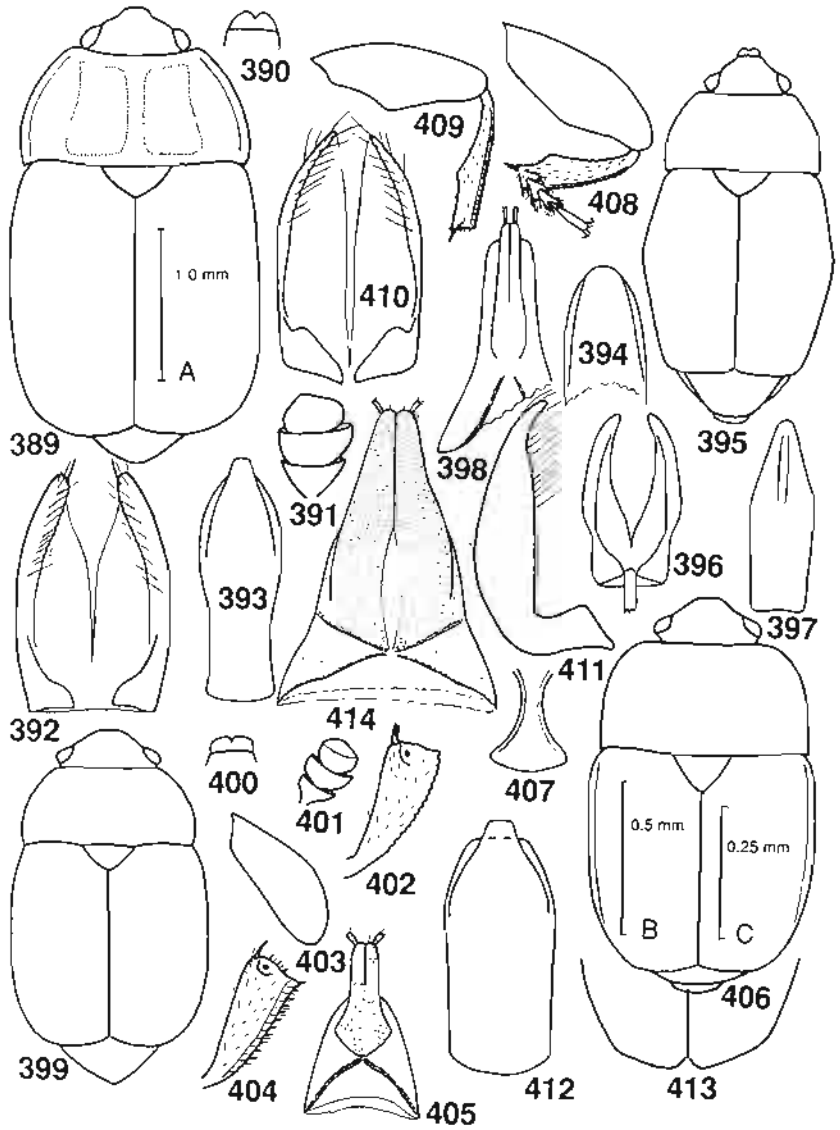
Scales: A - to figs. 366, 372, 380, 384; B - to figs.367, 368, 373-376, 381, 385, 386; C - to figs. 369-371, 377-379, 382, 383, 387, 388.



Figs. 389-414. Subgenus *Epuraea* (*Micruria*) (orig.)

E. (M.) reticulata (389-394):
389 - female body with a contour of explanate sides and dotted outline of darkened part on pronotum, dorsal (? holotype *E. ornata* Grouvelle, 1903, non Reitter, 1872); 390 - fore part of frons and labrum; 391 - antennal club; 392 - tegmen, ventral; 393, 394 - penis trunk, dorsal;
E. (M.) rhombica (395-398):
395 - male body, dorsal; 396 - tegmen, ventral; 397 - penis trunk, dorsal; 398 - ovipositor, ventral;
E. (M.) rotundula new species (399-405):
399 - female body, dorsal; 400 - fore part of head with labrum, dorsal; 401 - antennal club; 402 - female fore tibia, dorsal; 403 - female mid tibia, dorsal; 404 - female hind femur, ventral; 405 - ovipositor, ventral;
E. (M.) scapha new species (406-414):
406 - male body with a contour of explanate sides of elytra, dorsal; 407 - prosternal process, ventral; 408 - male fore tibia and tarsus, dorsal; 409 - male mid tibia, dorsal; 410 - tegmen, ventral; 411 - idem, lateral; 412 - penis, dorsal; 413 - elytral apices of female; 414 - ovipositor, ventral;

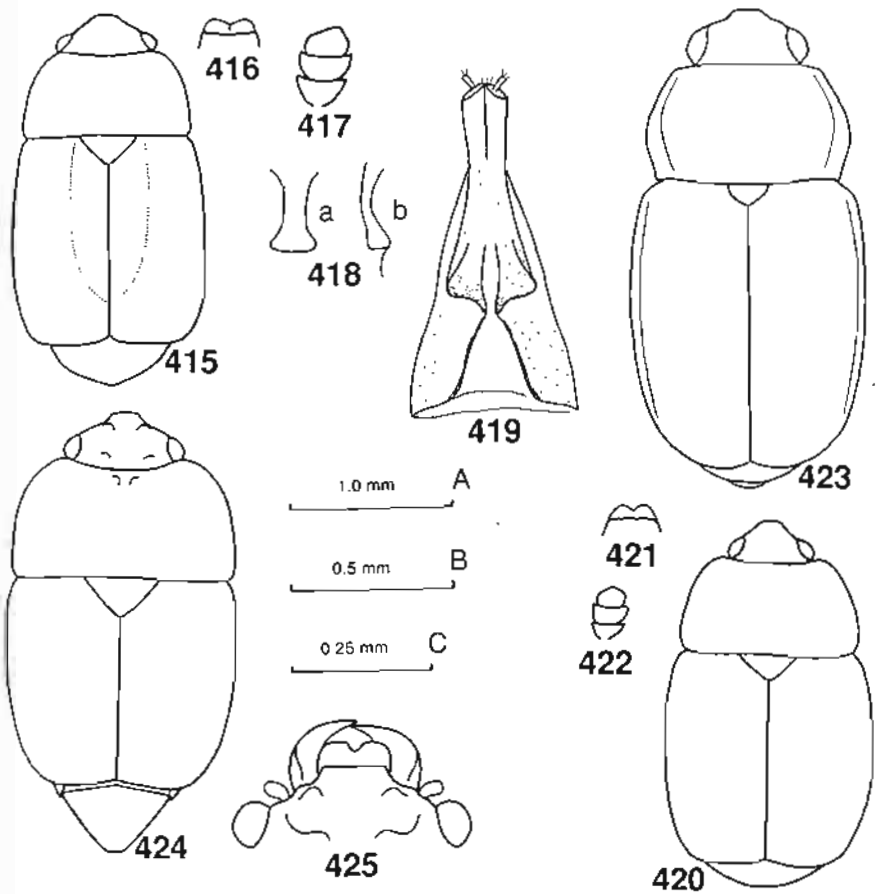
Scales: A - to figs. 389, 395, 399, 406, 413; B - to figs. 390, 391, 400-404, 407-409; C - to figs. 392-394, 396-398, 405, 410-412, 414.



Figs. 415-425. Subgenus *Epuraea* (*Micruria*)
(Kirejtshuk, 1990a, and orig.)

E (M.) specialis new species (415-419):
415 - female body, dorsal; 416 - fore part of head with labrum, dorsal; 417 - antennal club; 418 - prosternal process, ventral; 419 - ovipositor, ventral;
E. (M.) subtilis (420-422):
420 - female body, dorsal; 421 - fore part of head with labrum, dorsal; 422 - antennal club;
E. (M.) tschistyakovae (423):
423 - body with a contour of explanate sides of pronotum and elytra, dorsal;
E. (M.) tuberculata (424, 425):
424 - female body, dorsal; 425 - fore part of head with labrum, dorsal;

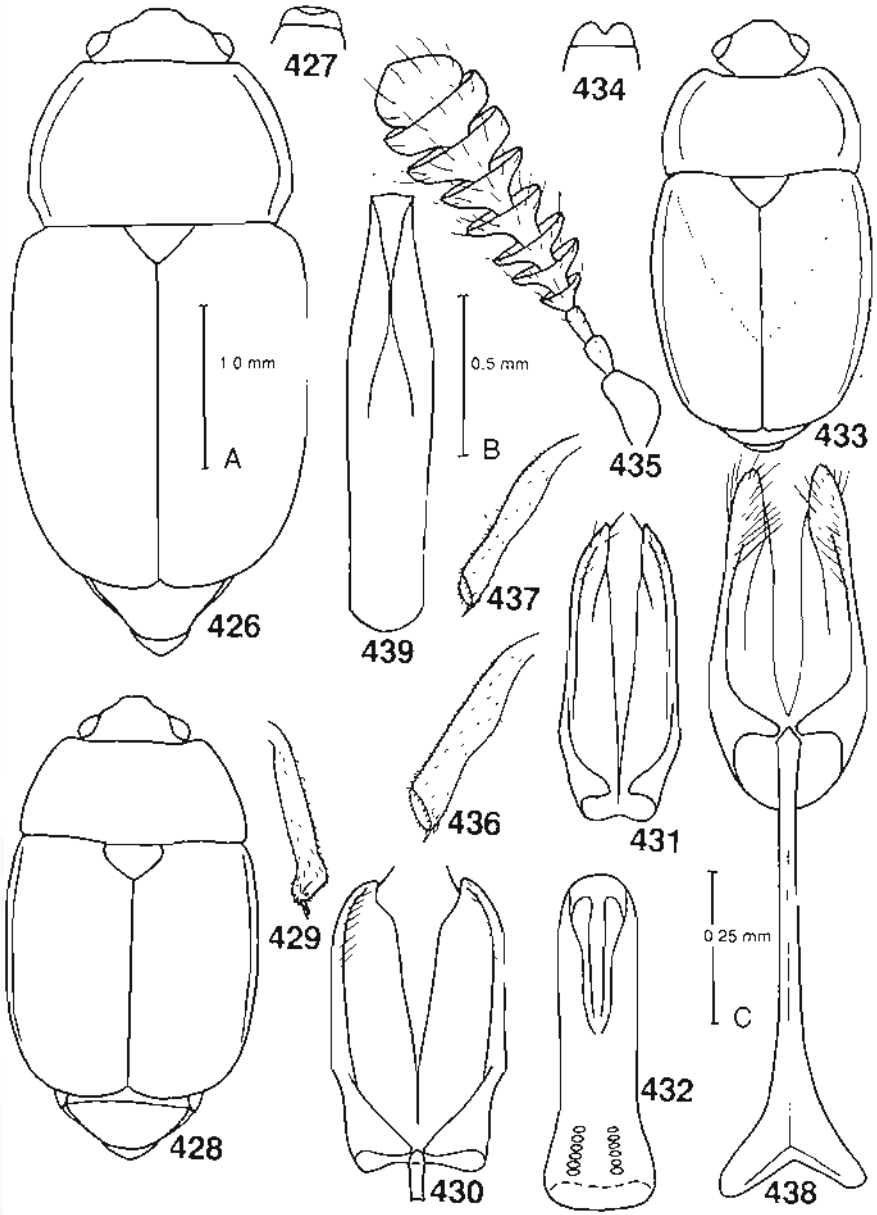
Scales: A - to figs. 415, 420, 423, 423; B - to figs. 416-418, 421, 422, 425; C - to fig. 419.



Figs. 426-439. Subgenera *Epuraea* (*Micruria*) and *E. (Ceroncura)* (orig.)

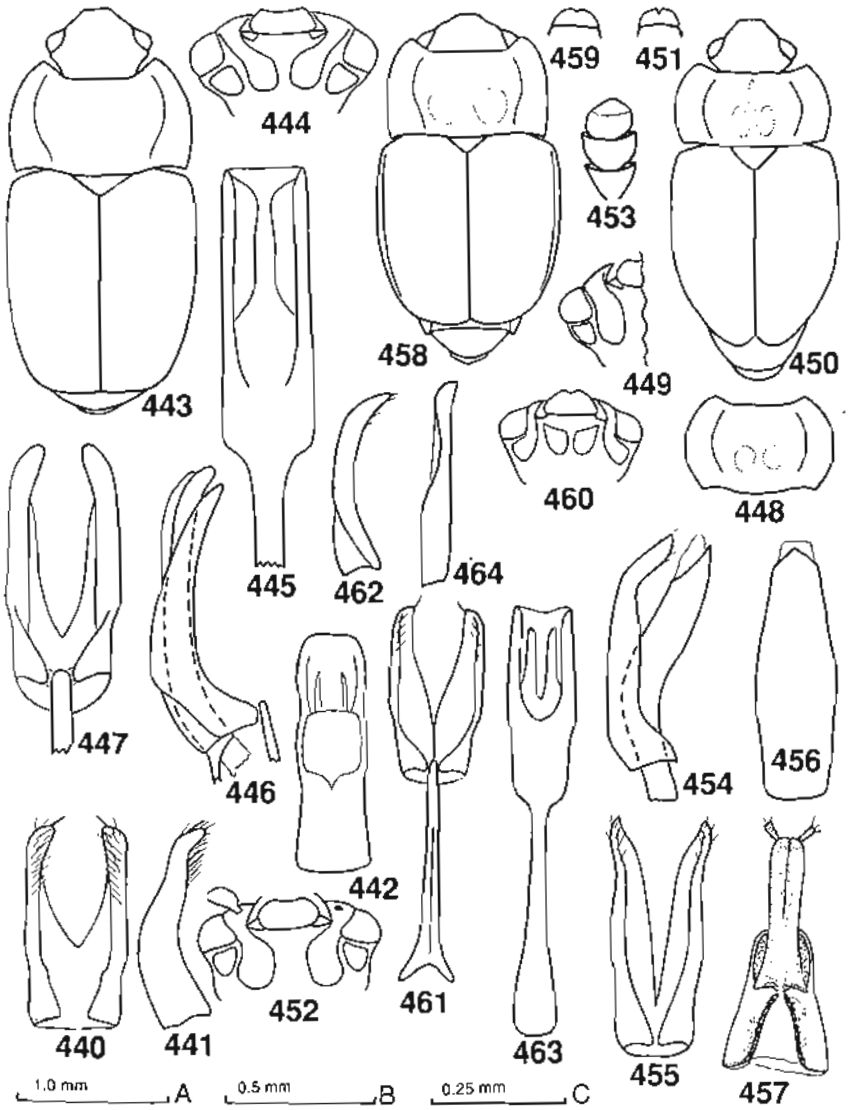
E. (M.) vulpina new species (426, 427):
426 - male body with a contour of explanate sides of pronotum, dorsal; 427 - fore part of head with labrum, dorsal;
E. (M.) wittmeri (428-431):
428 - body with a contour of explanate sides of elytra, dorsal; 429 - male mid tibia, dorsal; 430, 431 - tegmen of different specimens, ventral; 432 -penis trunk, dorsal;
E. (C.) dubitabilis (433-439):
433 - body with a contour of explanate sides of pronotum and elytra and a dotted outline of darkened lateral and apical parts of elytra, dorsal; 434 - fore part of frons and labrum; 435 - antenna; 436 - male mid tibia, dorsal; 437 - male hind tibia, dorsal; 438 - tegmen, ventral; 439 - penis trunk, dorsal;

Scales: A - to figs. 426, 428, 433; B - to figs. 427, 429, 434-437; C - to figs. 430-432, 438, 439.



Figs. 440-464. Subgenus *Epuraea* (*Epuraeanella*) (orig.)

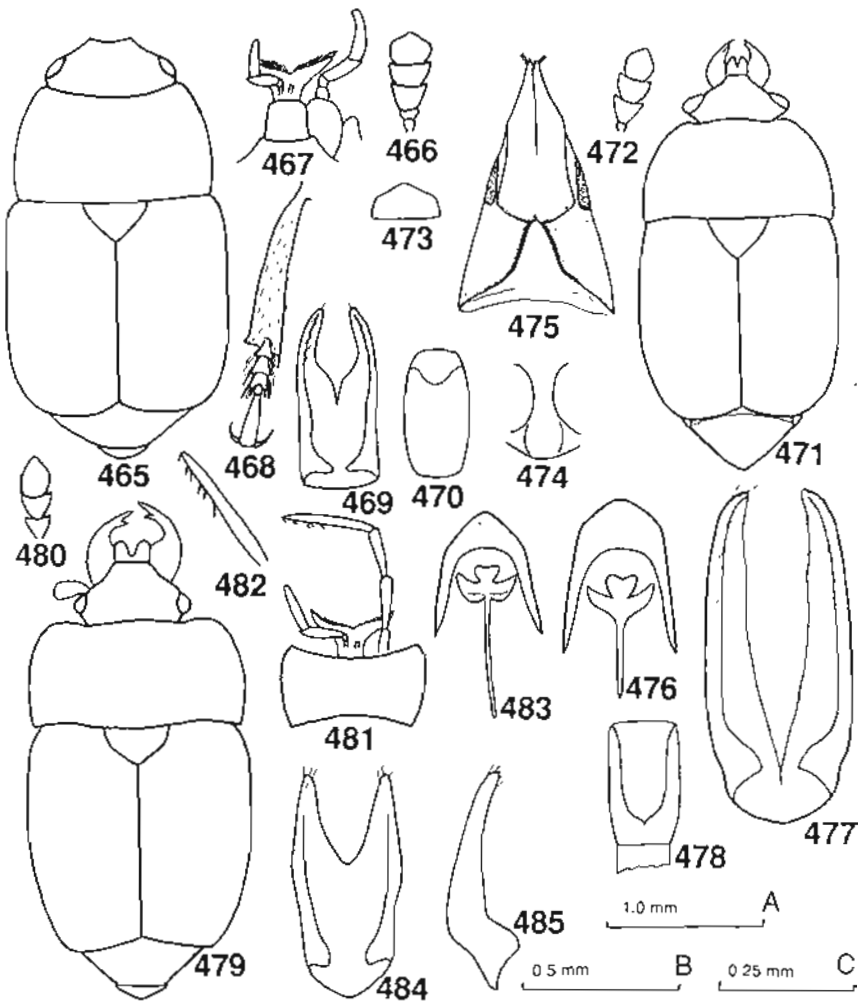
E. (E.) fossicollis (440-442):
440 - tegmen, ventral; 441 - idem, lateral; 442 - penis trunk, dorsal;
E. (E.) hammondi (443-447):
443 - male body with a contour of explanate sides of pronotum and elytra, and a dotted outline of depressions on pronotum, dorsal; 444 - ventral surface of head with a contour of antennal grooves and postocular fossae; 445 - penis trunk, dorsal; 446 - aedeagus, lateral; 447 - tegmen, ventral;
E. (E.) martensi new name (448-457):
448 - pronotum of the holotype of *Omosita ornata*, with a contour of explanate sides and a dotted outline of depressions, dorsal; 449 - ventral surface of head of the holotype of *Omosita ornata*, with a contour of antennal grooves and postocular fossae; 450 - body of specimen from Nepal, with a contour of explanate sides and a dotted outline of depressions on pronotum, dorsal; 451 - fore part of head and labrum of the same specimen, dorsal; 452 - ventral surface of head of the same specimen, with a scape, contour of antennal grooves and postocular fossae; 453 - antennal club of the same specimen; 454 - aedeagus of the same specimen, lateral; 455 - tegmen of the same specimen, ventral; 456 - penis of the same specimen, dorsal; 457 - ovipositor of specimen from Nepal, ventral;
E. (E.) nigerrima new species (458-464):
458 - male body with a contour of explanate sides of pronotum and elytra and a dotted outline of depressions on pronotum, dorsal; 459 - fore part of head with labrum, dorsal; 460 - ventral surface of fead with a contour of antennal grooves and postmental fossae; 461 - tegmen, ventral; 462 - idem, lateral; 463 - penis trunk, dorsal; 464 - idem, lateral;
Scales: A - to figs. 443, 448, 450, 458; B - to figs. 444, 449, 451-453, 459, 460; C - to figs. 440-442, 445-447, 454-457, 461-464.



Figs. 465-485. Genera *Grouvellia* and *Propetes* (Kirejtshuk, 1984a, 1995a and orig.)

G. picea (465-470):
465 - body, dorsal; 466 - antennal club; 467 - mentum, labium and maxillar palpus; 468 - fore tibia and tarsus, dorsal; 469 - tegmen, ventral; 470 - penis trunk, dorsal;
P. (Propetes) nigripennis (471-478):
lectotype *Haptoncus remotus* (471-475): 471 - female body, dorsal; 472 - antennal club; 473 - mentum; 474 - prosternal process, ventral; 475 - ovipositor, ventral; specimen from Vietnam (466-468): 476 - anal sclerite, ventral plate and *spiculum gastrale* of male (genital capsule), ventral; 477 - tegmen, ventral; 478 - penis trunk, dorsal;
P. (Mandipetes) intritus (479-485):
479 - body, dorsal; 480 - antennal club; 481 - mentum with maxillar and labial palpi, ventral; 482 - last segment of maxillar palpi; 483 - anal sclerite, ventral; 484 - tegmen, ventral; 485 - idem, lateral;

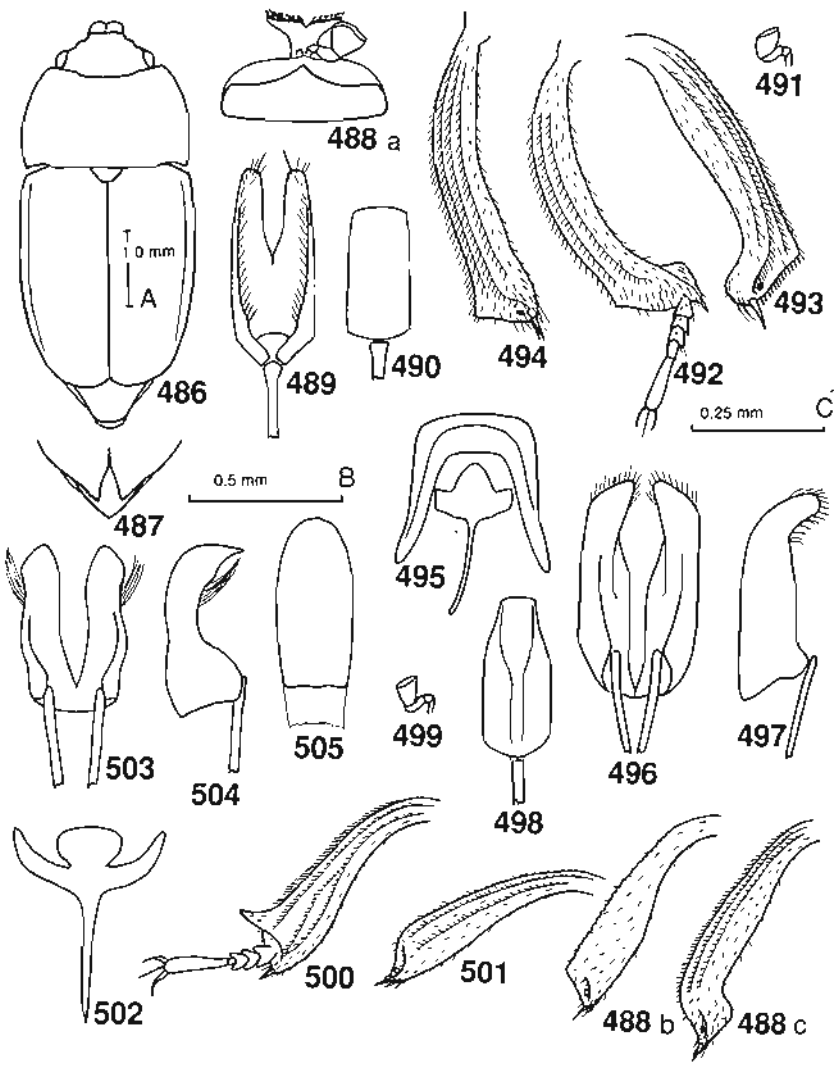
Scales: A - to figs. 471, 479; B - to figs. 465, 472-474, 480, 481; C - to figs. 466-469, 470, 475-478, 482-485.



Figs. 486-505. Subgenus *Tetrisus* (*Trimenus*)
(Kirejtshuk, 1984a and orig.)

T. (T.) accomodus (486-490):
486 - male body with a contour of explanate sides of elytra, dorsal; 487 - apex of female body, dorsal; 488a - mentum, ligula and labial palpus; 488b - male fore tibia, dorsal; 488c - male mid tibia, dorsal; 489 - tegmen, ventral; 490 - penis trunk, dorsal;
T. (T.) curvipes (specimen from Nepal) (491-498):
491 - labial palpus; 492 - male fore tibia and tarsus, dorsal; 493 - male mid tibia, dorsal; 494 - male hind tibia, dorsal; 495 - sclerites of male genital capsule (anal sclerite, ventral plate and *spiculum gastrale*), ventral; 496 - tegmen, ventral; 497 - idem, lateral; 498 - penis trunk, dorsal;
T. (T.) epuraeoides (499-505):
499 - labial palpus; 500 - male fore tibia and tarsus, dorsal; 501 - male mid tibia, dorsal; 502 - ventral plate and *spiculum gastrale* of male, ventral; 503 - tegmen, ventral; 504 - idem, lateral; 505 - penis trunk, dorsal;

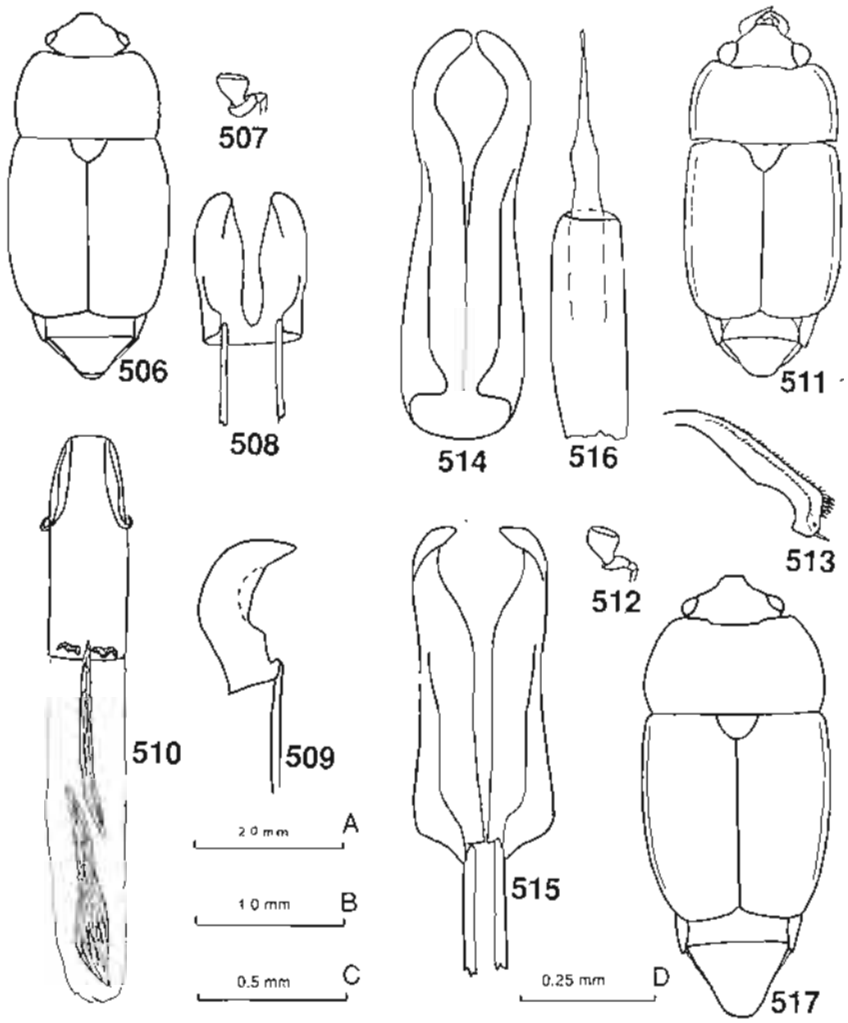
Scales: A - to figs. 486, 487; B - to figs. 488, 491-494, 499-501; C - to figs. 489, 490, 495-498, 502-505.



Figs. 506-517. Subgenera *Tetrisus* (*Trimenus*) and *T. (Tetrisus)* (after Kirejtshuk, 1992 and orig.)

T. (Trimenus) hydroporoides (506-510):
506 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 507 - labial palpus; 508 - tegmen, ventral; 509 - idem, lateral; 510 - penis trunk with armature of its inner sac, dorsal;
T. (Trimenus) parallepipedus (511-516):
511 - male body with a contour of explanate sides of pronotum and elytra, dorsal; 512 - labial palpus; 513 - male mid tibia, dorsal; 514, 515 - tegmen of different specimens, ventral; 516 - penis trunk, ventral;
T. (Tetrisus) cholevoides (517):
517 - female body with a contour of explanate sides of pronotum and elytra, dorsal;

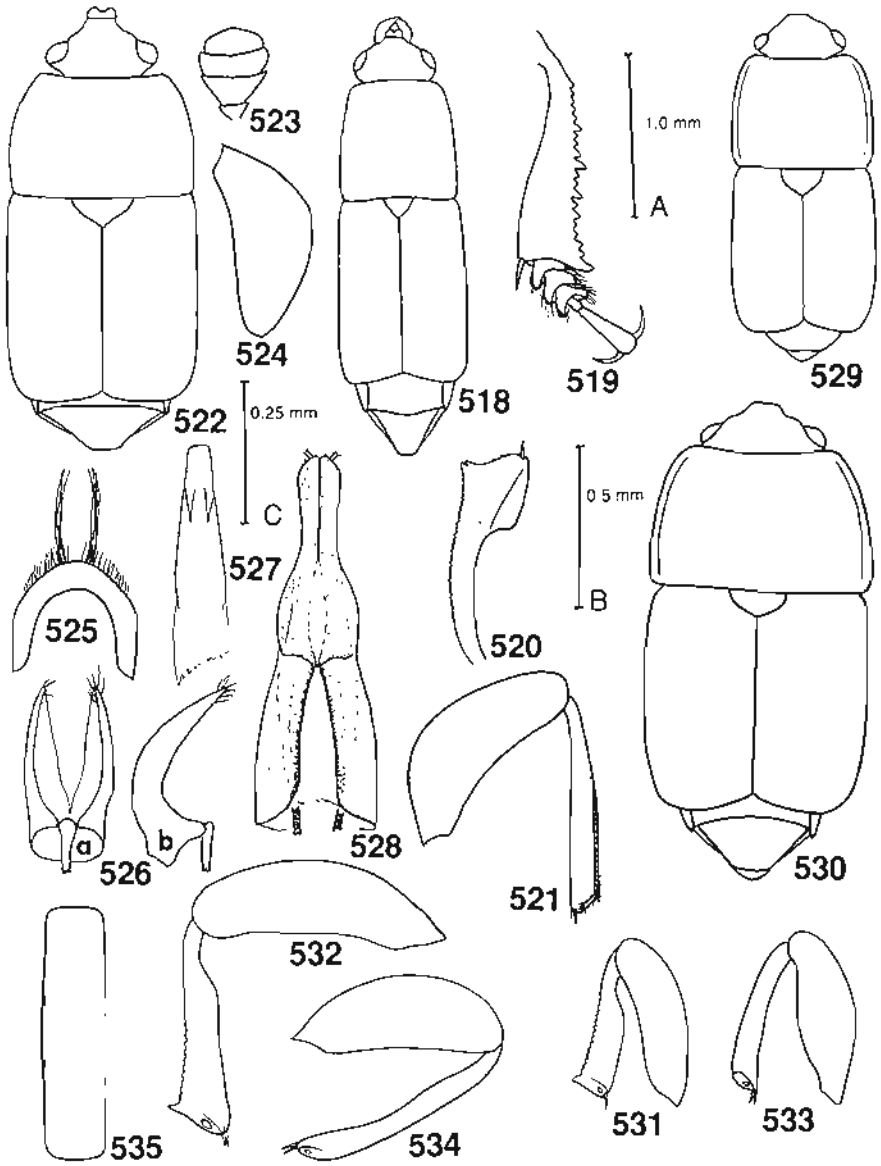
Scales: A - to figs. 506, 511; B - to fig. 517; C - to figs. 507, 512, 513; D - to figs. 508-510, 514-516.



Figs. 518-535. Genera *Taenioncus* and *Raspinotus* (Kirejtshuk, 1990a, 1992, 1994c and orig.)

T. tenius (518-519):
518 - male body, dorsal; 519 - fore tibia, dorsal;
R. combinatus (520-521):
520 - male fore tibia, dorsal; 521 - male hind tibia and femur, dorsal;
R. depressus (522-528):
522 - male body, dorsal; 523 - antennal club; 524 - male hind femur, ventral; 525 - male anal sclerite, ventral; 526a - tegmen, ventral; 526b - idem, lateral; 527 - penis trunk, dorsal; 528 - ovipositor, ventral;
R. excellens (529-535: 529, 531, 533, 535 - holotype from Philippines; 530, 532, 534 - specimens from Java):
529, 530 - male body with a contour of explanate sides of pronotum, dorsal; 531, 532 - male fore tibia, dorsal; 533, 534 - male hind femur and tibia, dorsal; 535 - penis trunk, dorsal;

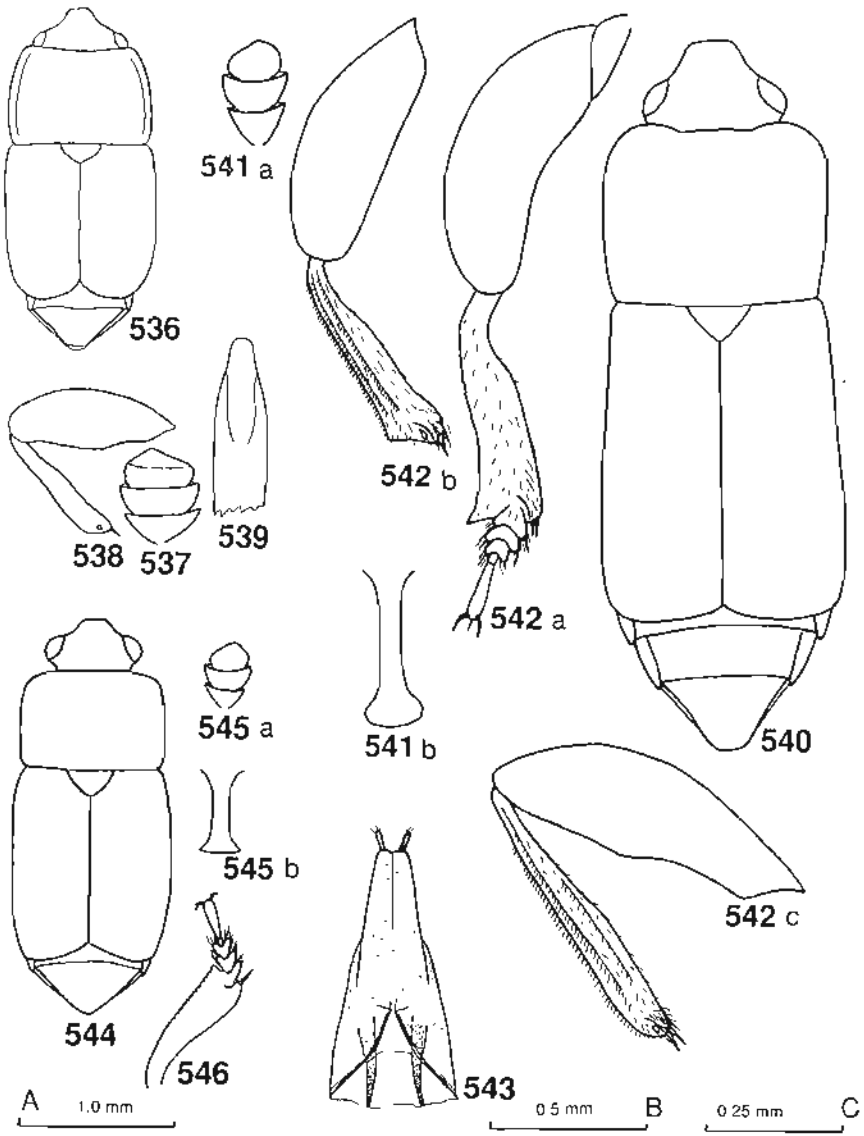
Scales: A - to figs. 518, 522, 529, 530; B - to figs. 520, 521, 523-525, 531-534; C - to figs. 519, 526-528, 535.



Figs. 536-546. Genus *Raspinotus*
(Kirejtshuk, 1990a, 1994c and orig.)

R. hospitus (536-539):
536 - male body with a contour of explanate sides of pronotum, dorsal; 537 - antennal club; 538 - male hind femur and tibia; 539 - penis trunk, dorsal;
R. krakingus new species (540-543):
540 - female body, dorsal; 541a - antennal club; 541b - prosternal intercoxal process, ventral; 542a - female fore leg, dorsal; 542b - female mid femur and tibia, dorsal; 542c - female hind femur and tibia, dorsal; 543 - ovipositor, ventral;
R. schawalleri new species (544-546):
544 - female body, dorsal; 545a - antennal club; 545b - prosternal intercoxal process, ventral; 546 - fore tibia and tarsus, dorsal;

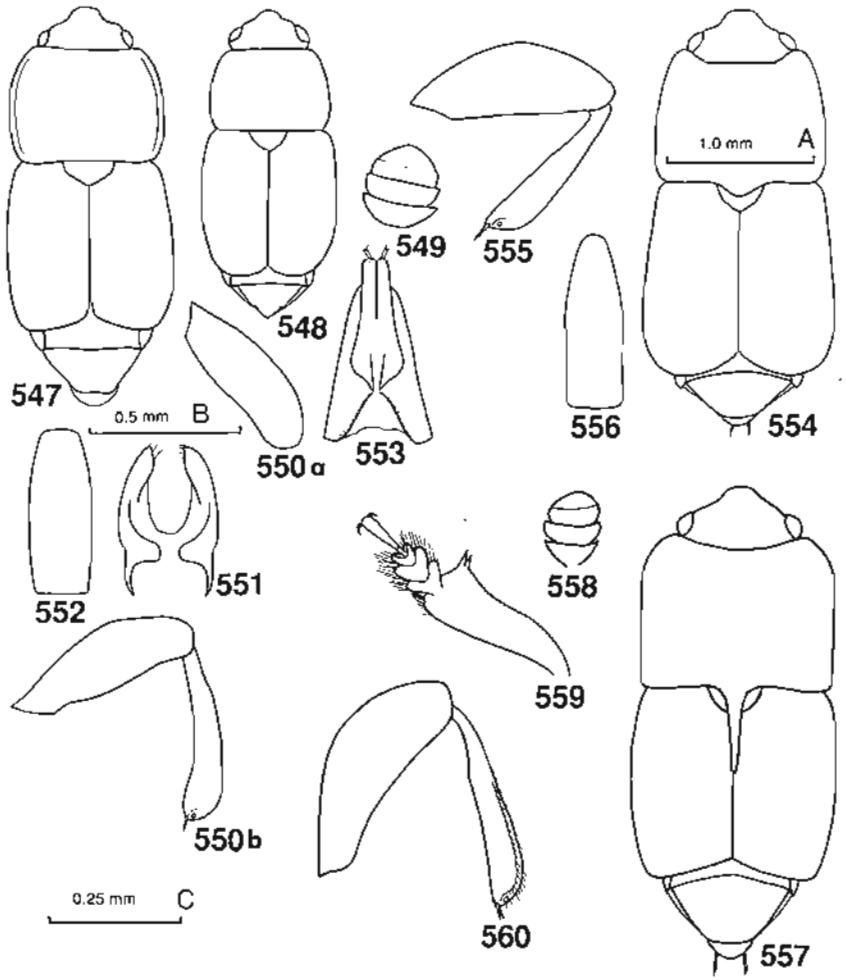
Scales: A - to figs. 536, 540, 544; B - to figs. 537, 538, 541-543, 545, 546; C - to figs. 539, 544.



Figs. 547-560. Subgenus *Raspinotus* (Kirejtshuk, 1990a, 1994c and orig.)

R. simples (547-553):
547 - male body with a contour of explanate sides of pronotum, dorsal; 548 - female body, dorsal; 549 - antennal club; 550a - male fore femur, ventral; 550b- male hind femur and tibia, dorsal; 551 - tegmen, ventral; 552 - penis trunk, dorsal; 553 - ovipositor, ventral;
R. spinicollis (554-556):
554 - male body, dorsal; 555- male hind femur and tibia, dorsal; 556 - penis trunk, dorsal;
R. spinosus (557-560):
557 - male body, dorsal; 558 - antennal club; 559 - male fore tibia and tarsus, dorsal; 560 - male hind femur and tibia, dorsal;

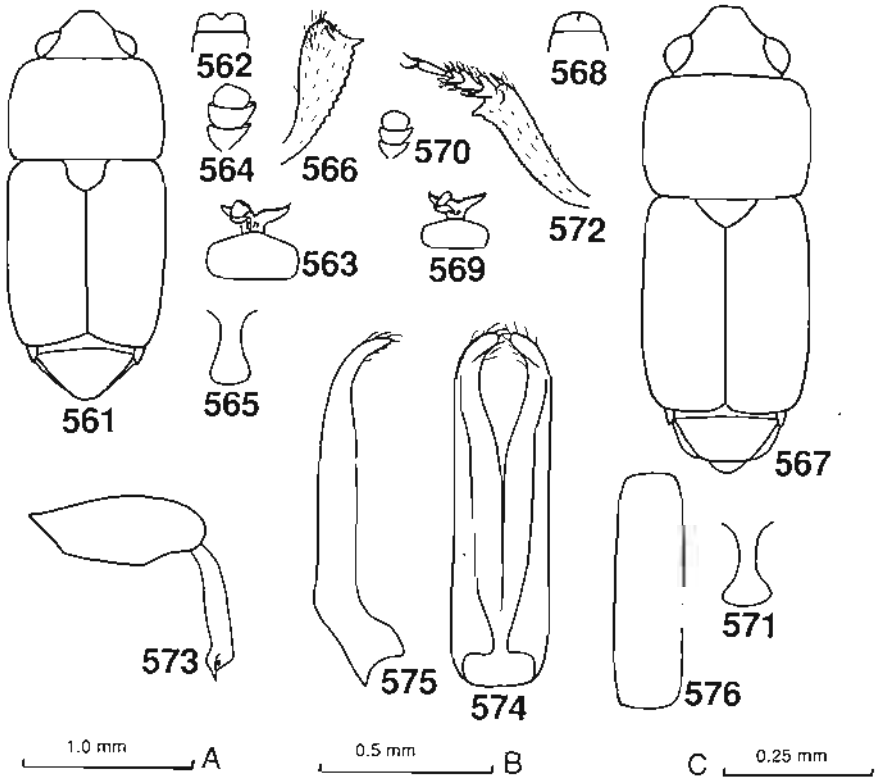
Scales: A - to figs. 547, 548, 554, 557; B - to figs. 549, 550, 555, 558-560; C - to figs. 551-553, 556.



Figs. 561-576. Genus *Taeniolinus* new genus (orig.)

T. nitidissimus new species (561-566):
561 - female body, dorsal; 562 - fore part of head with labrum; 563 - mentum, ligula and labial palpus, ventral; 564 - antennal club; 565 - prosternal intercoxal process, ventral; 566 - female fore tibia, dorsal;
Taeniolinus spinigerus new species (567-576):
567 - male body, dorsal; 568 - fore part of head with labrum; 569 - mentum, ligula and labial palpus, ventral; 570 - antennal club; 571 - prosternal intercoxal process, ventral; 572 - male fore tibia, dorsal; 573 - male mid femur and tibia, dorsal; 574 - tegmen, ventral; 575 - idem, lateral; 576 - penis trunk, dorsal;

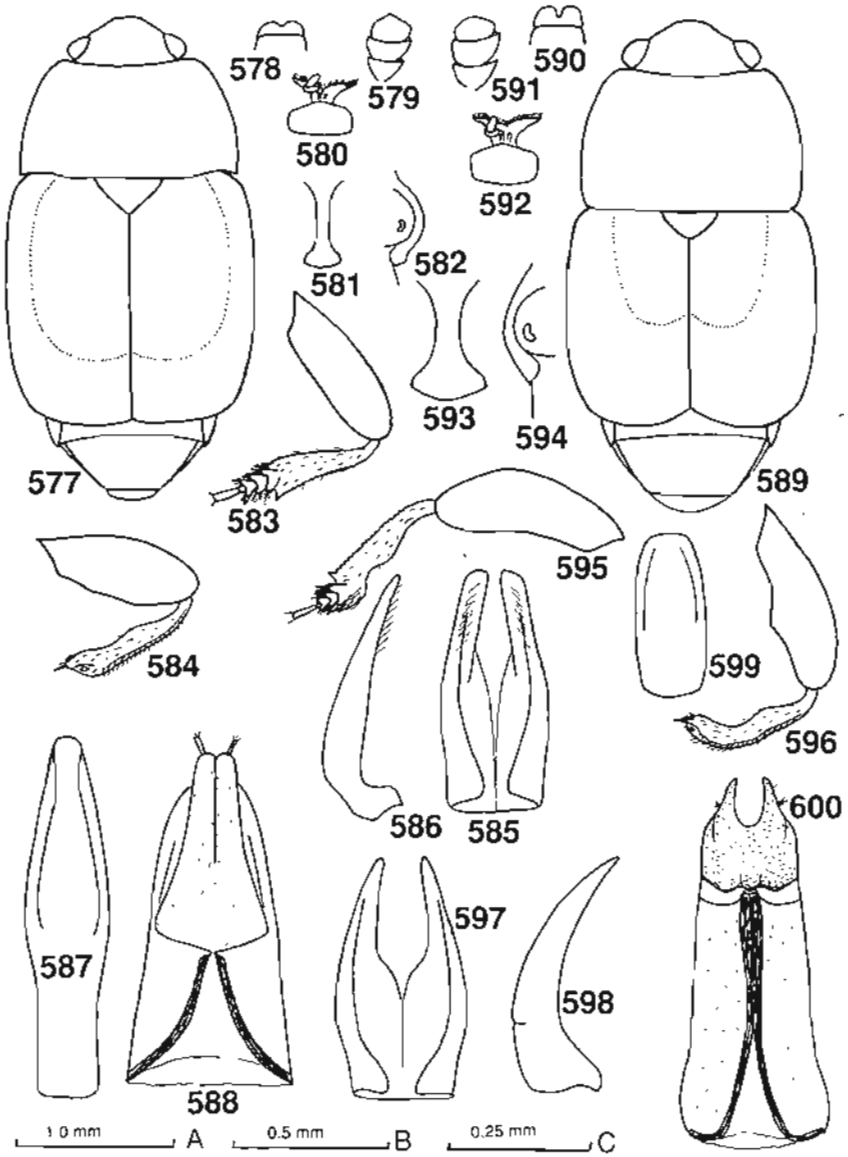
Scales: A - to figs. 561, 567; B - to figs. 562- 566, 568-573; C - to figs. 574- 576.



Figs. 577-600. Genus *Carpocryraea* new genus (orig.)

C. familiaris (577-588):
577 - male body with a dotted outline of darkened parts of pronotum and elytra, dorsal; 578 - fore part of head with labrum, dorsal; 579 - antennal club; 580 - mentum, ligula and labial palpus; 581 - prosternal intercoxal process, ventral; 582 - idem, lateral; 583 - male fore tibia and tarsus, dorsal; 584 - male mid femur and tibia, dorsal; 585 - tegmen, ventral; 586 - idem, lateral; 587 - penis trunk, dorsal; 588 - ovipositor, ventral;
C. modiglianii (589-600):
589 - male body with a dotted outline of darkened parts of pronotum and elytra, dorsal; 590 - fore part of head with labrum, dorsal; 591 - antennal club; 592 - mentum, ligula and labial palpus; 593 - prosternal intercoxal process, ventral; 594 - idem, lateral; 595 - male fore tibia and tarsus, dorsal; 596 - male mid femur and tibia, dorsal; 597 - tegmen, ventral; 598 - idem, lateral; 599 - penis trunk, dorsal; 600 - ovipositor, ventral;

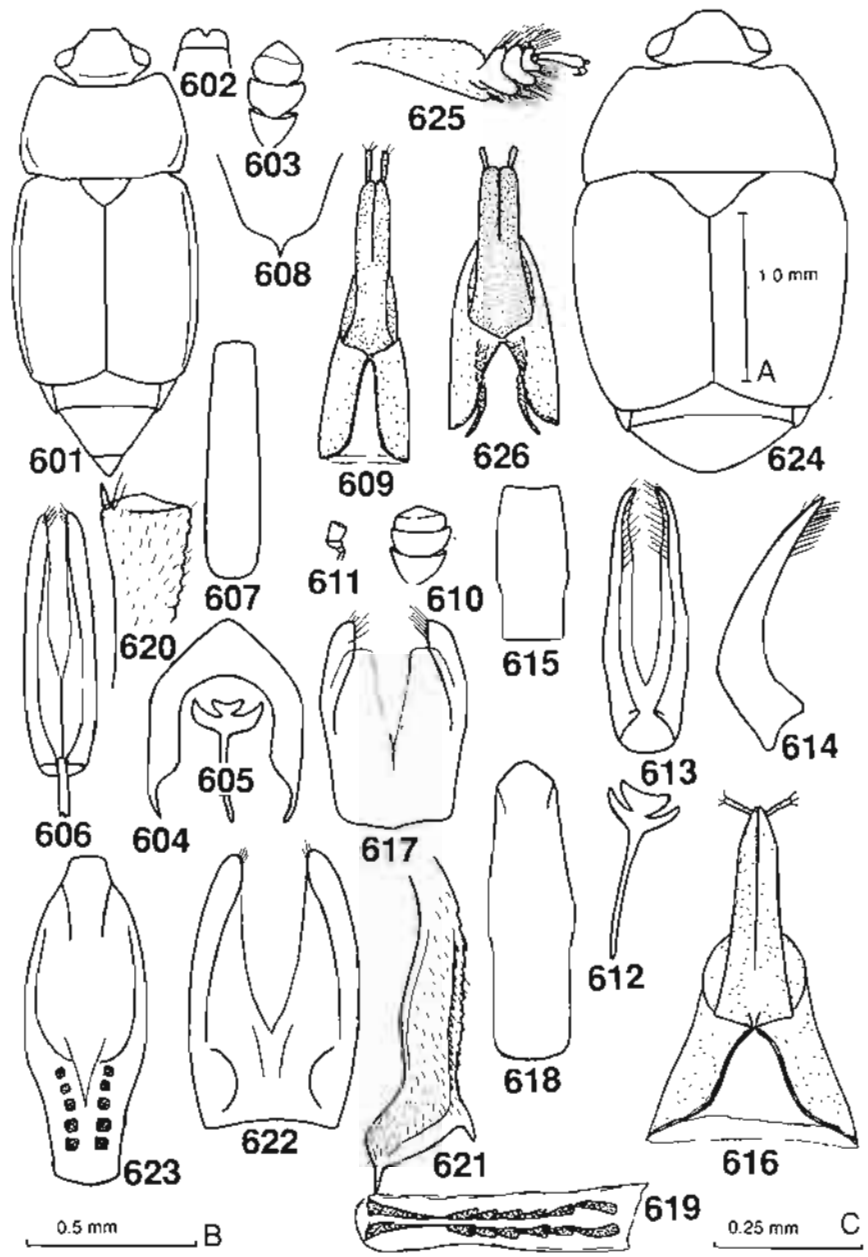
Scales: A - to figs. 577, 589; B - to figs. 578-585, 590-597; C - to figs. 586-588, 598-600.



Figs. 601-626. Subgenera *Epuraea* (*Haptoncus*), *E.* (*Epuraea*) and *E.* (*Micruria*) (orig. and 617-620 after Jelinek, 1978)

E. (Haptoncus) pygidioacuta new species (601-609):
601 - male body with a contour of subexplanate sides of pronotum and elytra, dorsal; 602 - fore part of head with labrum; 603 - antennal club; 604 - anal sclerite, ventral; 605 - ventral plate and *spiculum gastrale*, ventral; 606 - tegmen, ventral; 607 - penis trunk, dorsal; 608 - female pygidium; 609 - ovipositor, ventral;
E. (Epuraea) basisinuata (610-616):
610 - antennal club; 611 - labial palpus; 612 - ventral plate and *spiculum gastrale*, ventral; 613 - tegmen, ventral; 614 - idem, lateral; 615 - penis trunk, dorsal; 616 - ovipositor, ventral;
E. (Epuraea) cyclops (617-619):
617 - tegmen, dorsal; 618 - penis trunk, dorsal; 619 - armature of inner sac of penis;
E. (Micruria) atra (620-623):
620 - male fore tibia, dorsal; 621 - male mid tibia, dorsal; 622 - tegmen, ventral; 623 - penis trunk, dorsal;
E. (Micruria) latitarsis new species (624-626):
624 - female body, dorsal; 625 - female fore tibia and tarsus, dorsal; 626 - ovipositor, ventral;

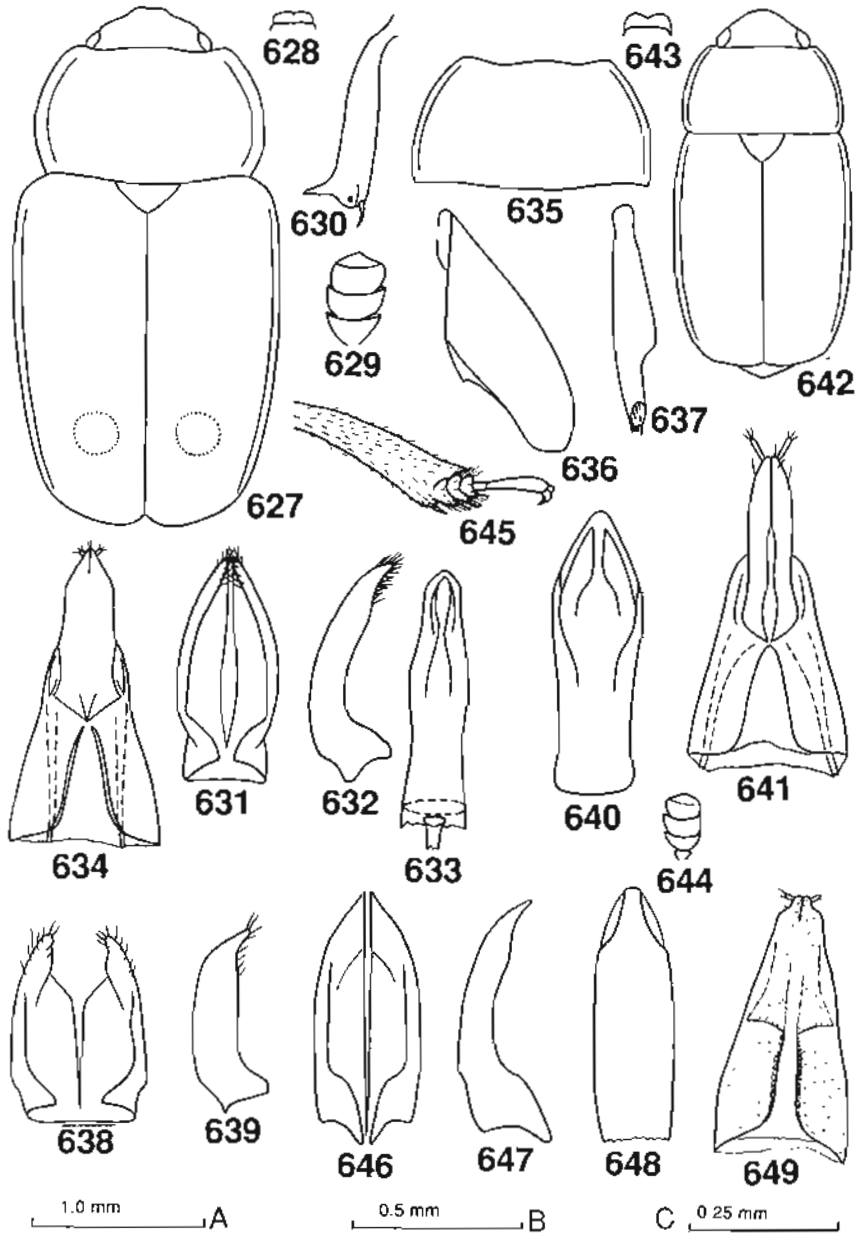
Scales: A - to figs. 601, 608, 624; B - to figs. 602, 603, 610, 620-621, 625; C - to figs. 604-607, 609, 611-619, 622-623, 626.



Figs. 627-649. Subgenus *Epuraea* (*Micruria*)
(after Kirejtshuk, 1987a, 1992 and orig.)

E. (M.) auripubens (627-634):
627 - male body with a contour of subexplanate sides of pronotum and elytra and dotted outline of dark spots on elytra, dorsal; 628 - fore part of head with labrum; 629 - antennal club; 630 - male fore tibia, dorsal; 631 - tegmen, ventral; 632 - idem, lateral; 633 - penis trunk, dorsal; 634 - ovipositor, ventral;
E. (M.) bergeri (635-641):
635 - pronotum with a contour of subexplanate sides; 636 - male hind femur, ventral; 637 - male hind tibia, lateral; 638 - tegmen, ventral; 639 - idem, lateral; 640 - penis trunk, dorsal; 641 - ovipositor, ventral;
E. (M.) potaninorum (642-649):
642 - male body with a contour of subexplanate sides of pronotum and elytra, dorsal; 643 - fore part of head with labrum; 644 - antennal club; 645 - male fore tibia and tarsus, dorsal; 646 - tegmen, ventral; 647 - idem, lateral; 648 - penis trunk, dorsal; 649 - ovipositor, ventral;

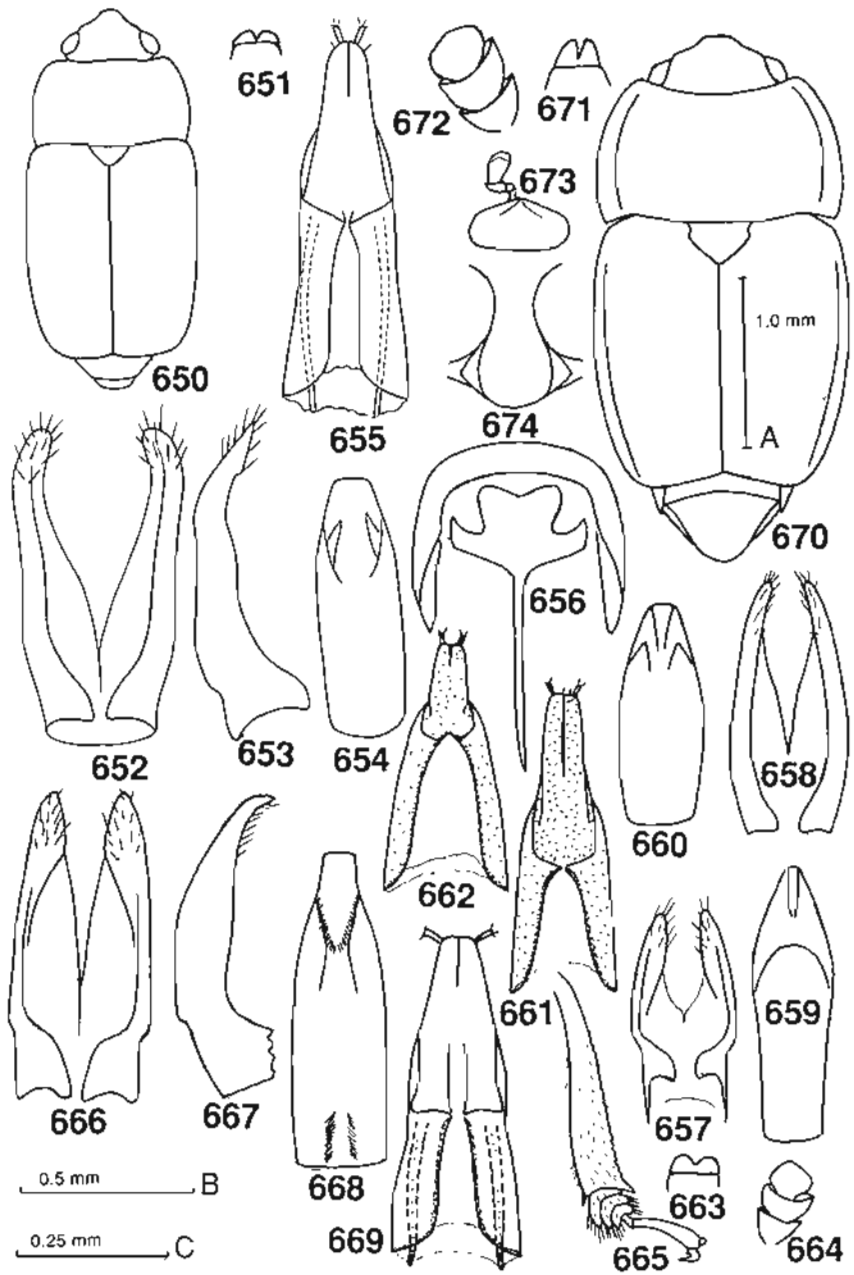
Scales: A - to figs. 627, 635, 642; B - to figs. 628-630, 636-637, 643-645; C - to figs. 631-634, 638-641, 646-649.



Figs. 650-674. Subgenera *Epuraea* (*Micruria*) and *Tetrisus* (*Trimenus*) (orig.)

E. (M.) punctata (650-655):
650 - male body, dorsal; 651 - fore part of head with labrum; 652 - tegmen, ventral; 653 - idem, lateral; 654 - penis trunk, dorsal; 655 - ovipositor, ventral;
E. (Micruria) subtilis (656-662):
656 - anal sclerite, ventral plate and *spiculum gastrale*, ventral; 657 - tegmen, ventral, specimen from North Vietnam; 658 - idem, specimen from Malaysia, Malacca; 659 - penis trunk, dorsal, specimen from North Vietnam; 660 - idem, specimen from Malaysia, Malacca; 661 - ovipositor, ventral, specimens from Bhutan; 662 - idem, specimen from Malaysia, Malacca;
E. (M.) tschistykovae (663-669):
663 - fore part of head with labrum; 664 - antennal club;
665 - male fore tibia and tarsus, dorsal; 666 - tegmen, ventral; 667 - idem, lateral; 668 - penis trunk, dorsal; 669 - ovipositor, ventral;
T. (Trimenus) erugatus (670-674):
670 - female body with a contour of subexplanate sides of pronotum and elytra, dorsal; 671 - fore part of head with labrum; 672 - antennal club; 673 - mentum and labial palpus, ventral; 674 - prosternal process, ventral;

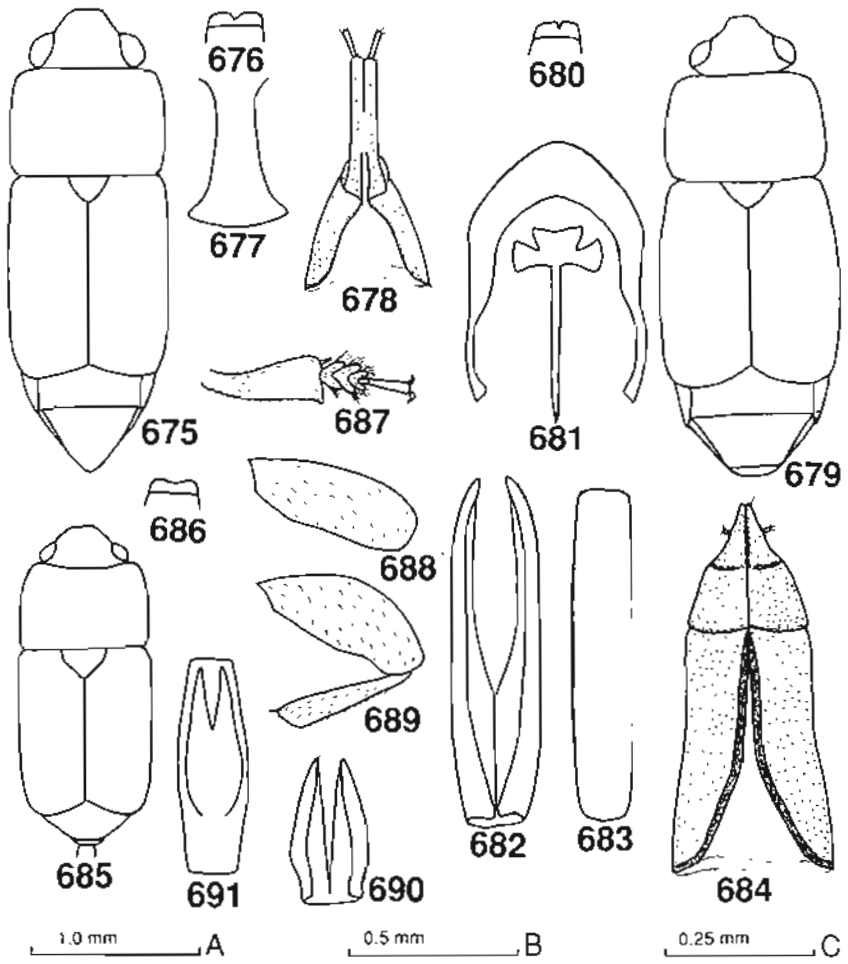
Scales: A - to fig. 650, 670; B - to figs. 651, 663-665, 671-674; C - to figs. 652-655, 656-662, 666-669.



Figs. 675-691. Genus *Taeniolinus* new genus (orig.)

T. johnsoni new species (675-678):
675 - female body, dorsal; 676 - fore part of head with labrum; 677 - prosternal intercoxal process, ventral; 678 - ovipositor, ventral;
T. merkli new species (679-684):
679 - female body, dorsal; 680 - fore part of head with labrum; 681 - anal sclerite, ventral plate and *spiculum gastrale*, ventral; 682 - tegmen, ventral; 683 - penis trunk, dorsal; 684 - ovipositor, ventral;
T. parvus new species (685-691):
685 - male body, dorsal; 686 - fore part of head with labrum; 687 - male fore tibia and tarsus, dorsal; 688 - male mid femur, ventral; 689 - male hind femur and tibia, ventral; 690 - tegmen, ventral; 691 - penis trunk, dorsal;

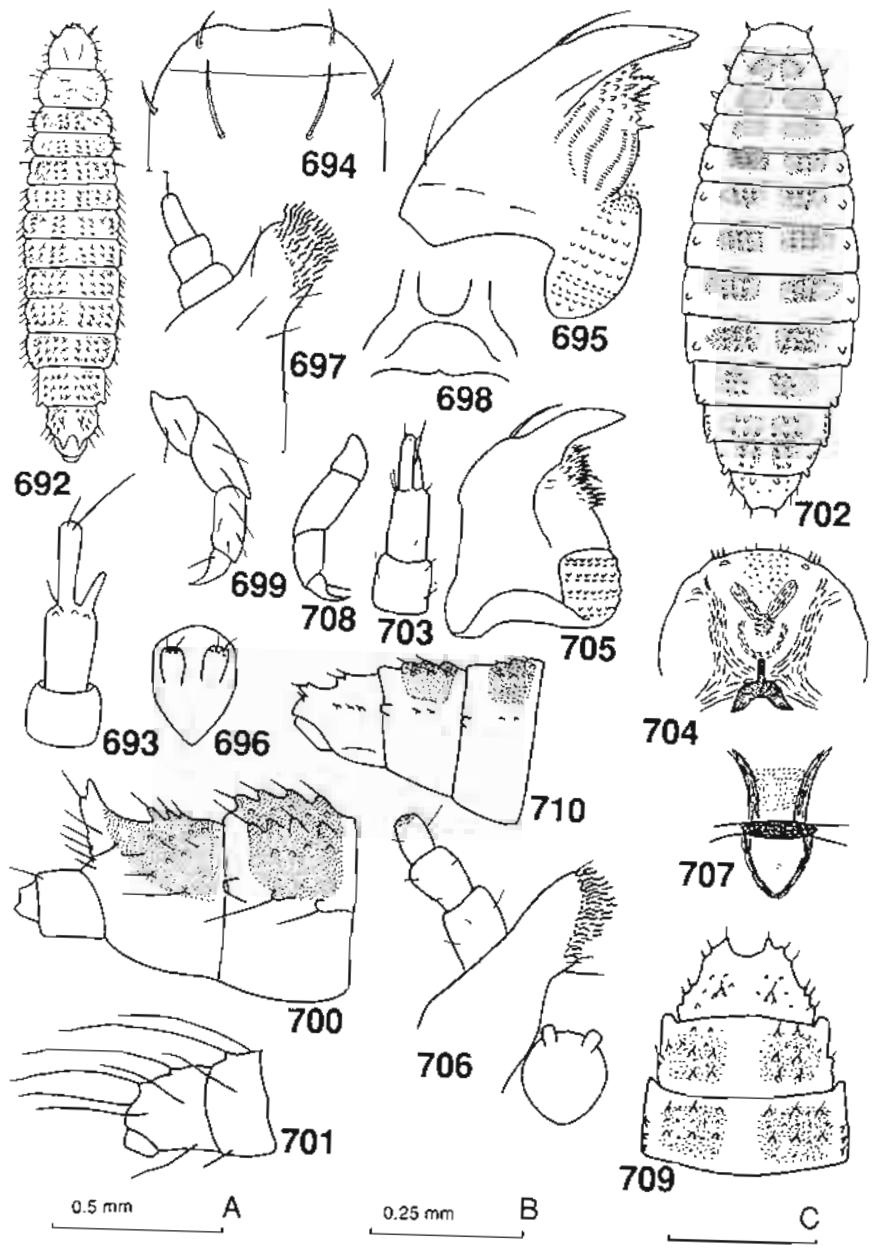
Scales: A - to figs. 675, 679, 685; B - to figs. 676, 680, 686-689; C - to figs. 677, 681-684, 690-691.

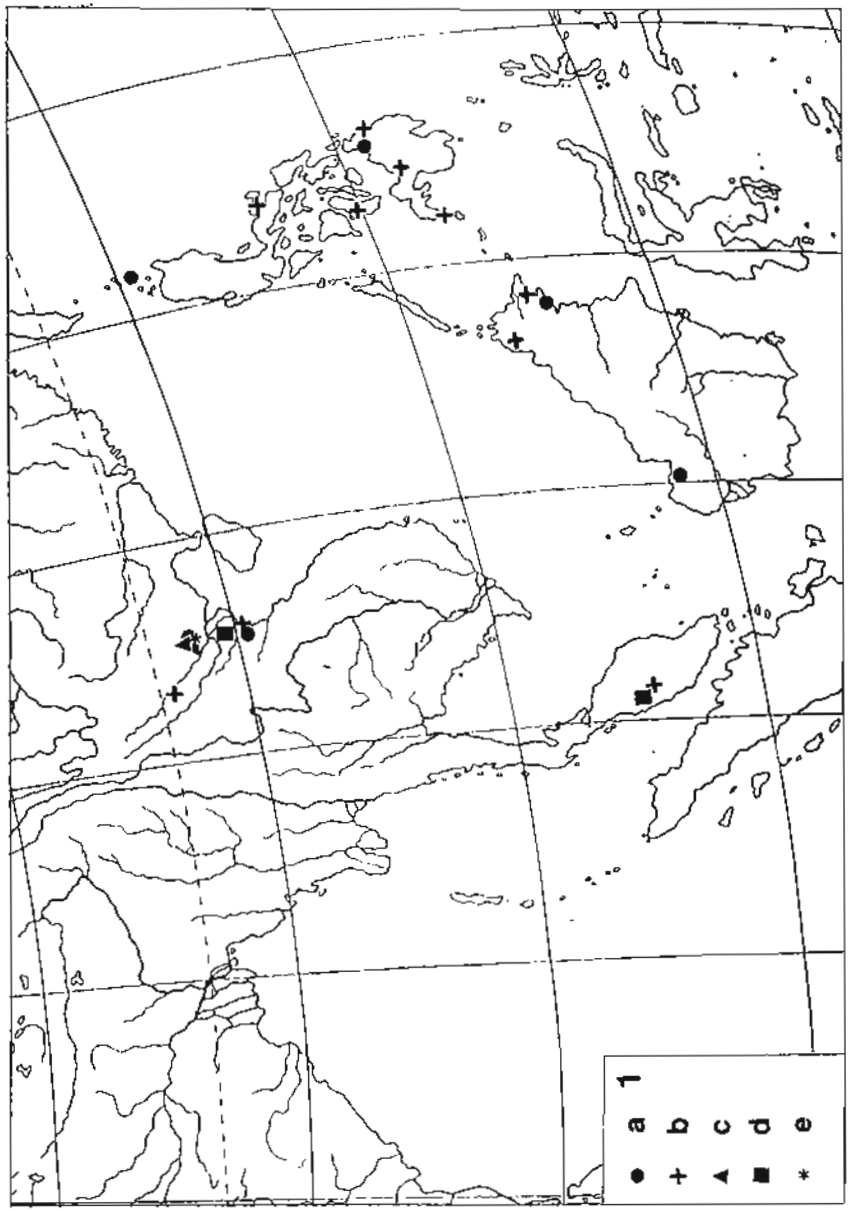


Figs. 692-710. Larvae of Epuraeinae (orig.)

Epuraea (Haptoncus) fallax (692-701):
mature larva (692-700): 692 - body, dorsal; 693 - antenna, dorsal; 694 - epipharyngeal surface, ventral; 695 - right mandible, ventral; 696 - labium with palpi, ventral; 697 - right maxilla with palpus, ventral; 698 - hypopharyngeal armature, dorsal; 699 - leg, lateral; 700 - abdominal apex, lateral; immature larva (701): abdominal apex, lateral;
Raspinotus species (702-710):
702 - body, dorsal; 703 - antenna, dorsal; 704 - epipharyngeal surface, ventral; 705 - right mandible, ventral; 706 - labium with palpi and right maxilla with palpus, ventral; 707 - hypopharyngeal armature, dorsal; 708 - leg, lateral; 709 - abdominal apex, dorsal; 710 - abdominal apex, lateral;

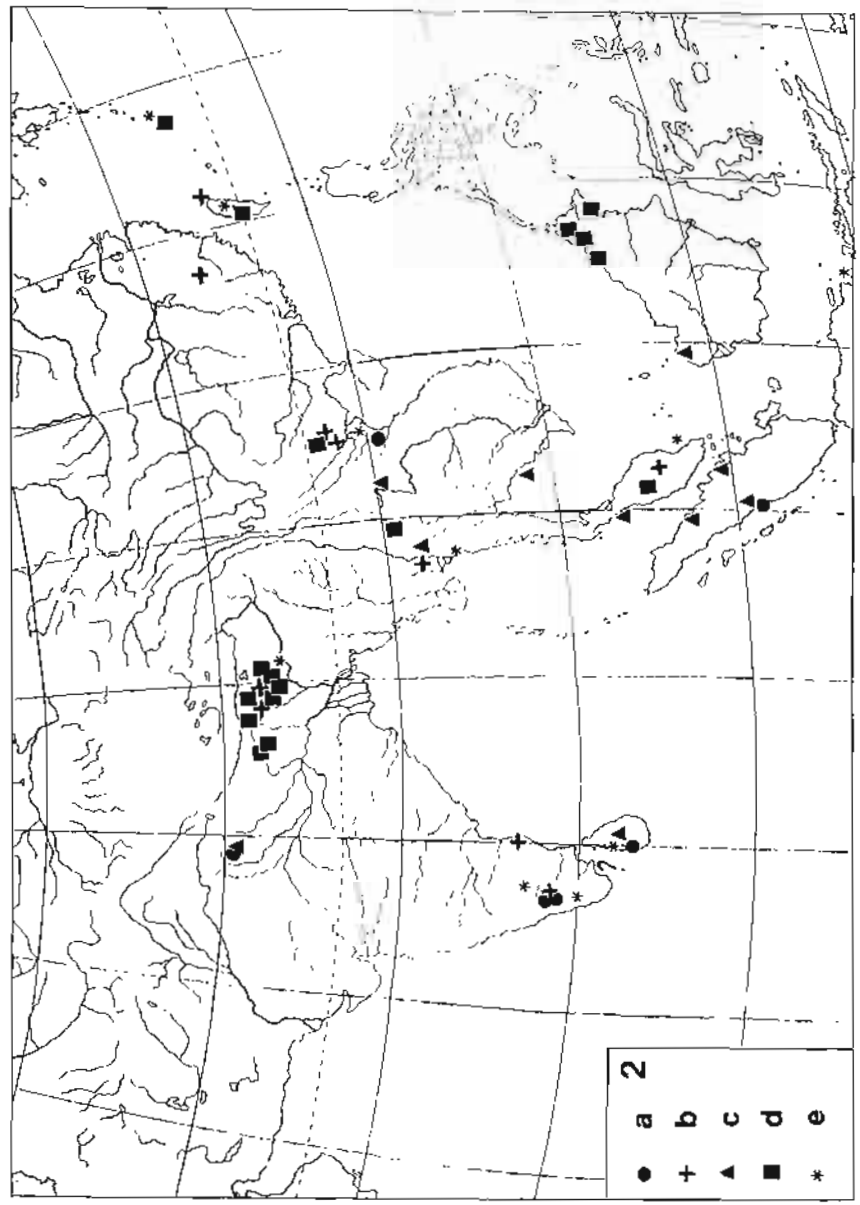
Scales: A - to figs. 692, 702; B - to figs. 693, 694, 699-701, 703, 704, 708-710; C - to figs. 695-698, 705-707.





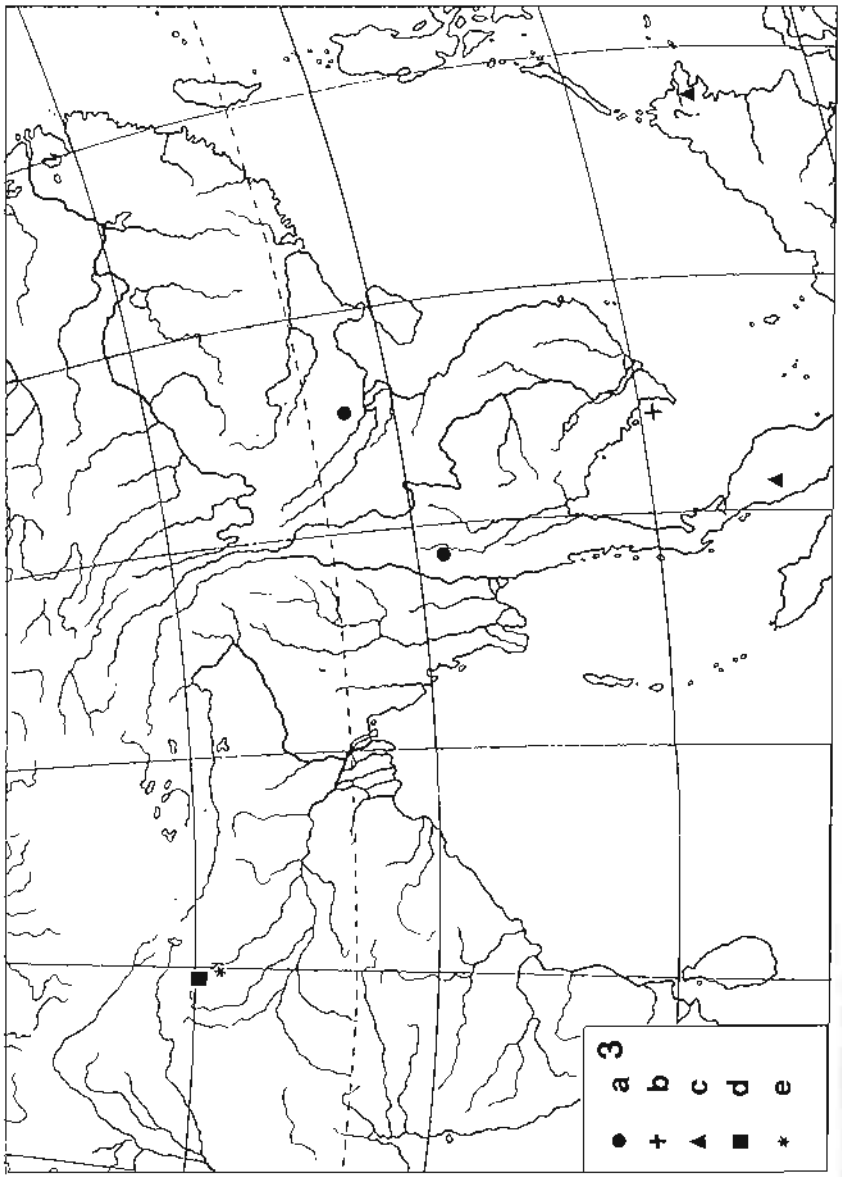
Map 1. Species of genus *Epuraea* sensu lato and subgenus *Propetes (Mandipetes)*

a - *E. (Haptoncurina) facetata*; b - *E. (Haptoncus) fanuli*; c - *E. (Micruria) indochinensis*; d - *E. (Micruria) latitarsis* new species; e - *Propetes (Mandipetes) intritus*.



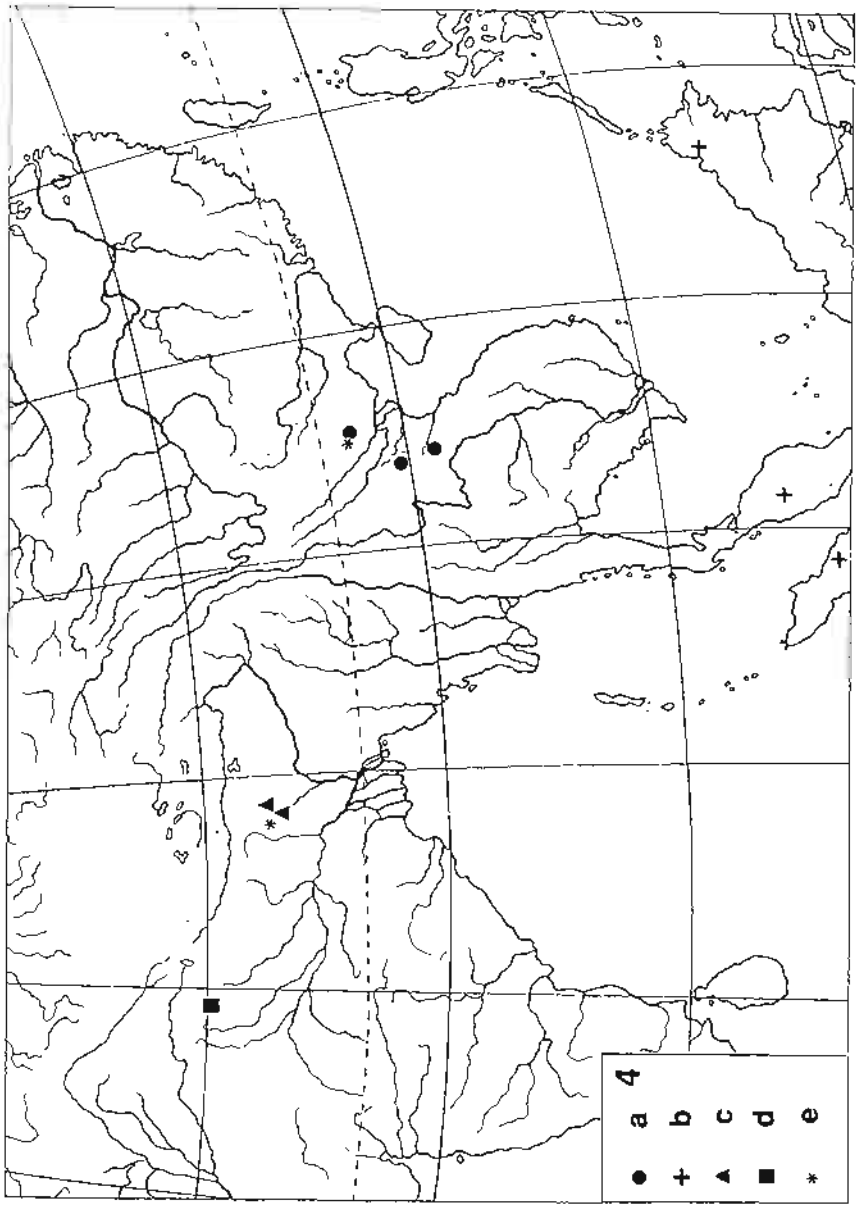
Map 2. Species of genus *Epuraea* sensu lato and subgenus *Propetes (Propetes)* sensu stricto

a - *E. (Haptoncurina) reflexicollis*; b - *E. (Epuraea) birmanica*; c - *E. (Epuraea) latissima*; d - *E. (Micruria) grouvellei*; e - *P. (Propetes) nigripennis*.



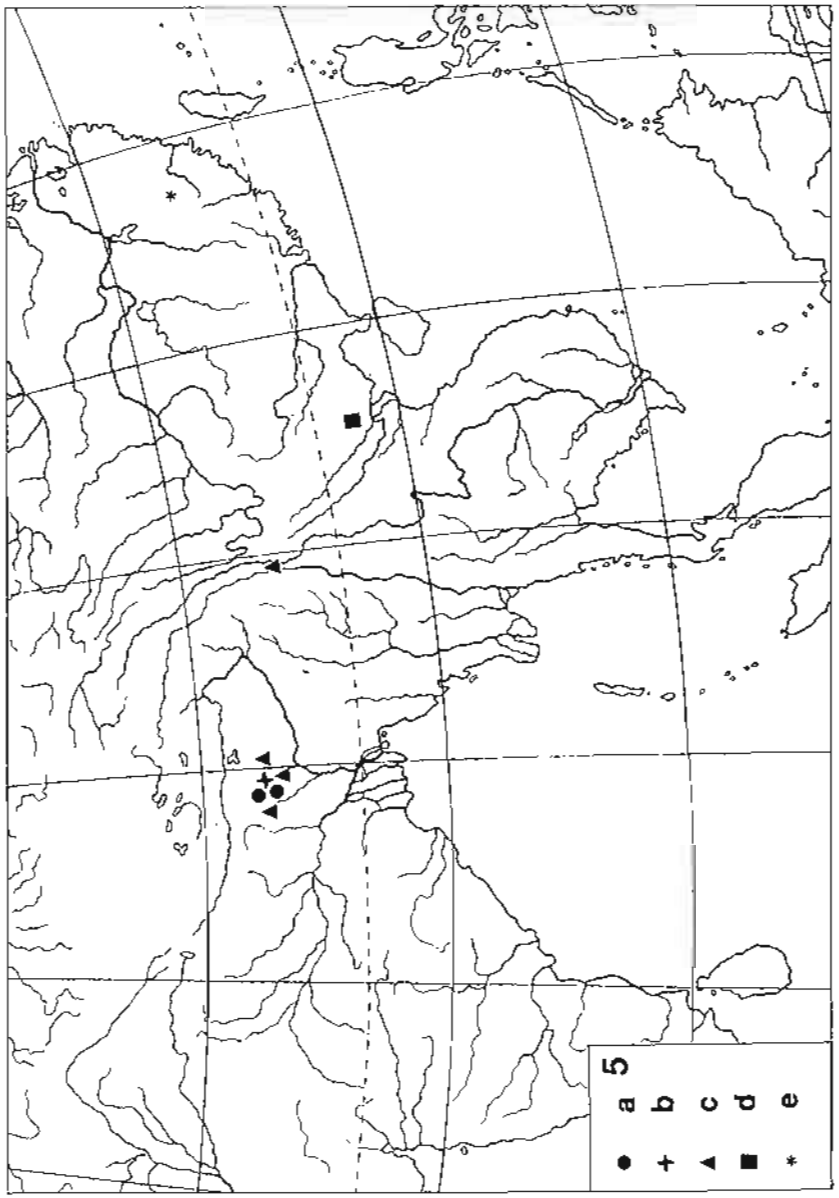
Map 3. Species of subgenera *Epuraea (Haptoncus)* and *E. (Epuraea)* sensu stricto

a - *E. (Haptoncus) dubia*; b - *E. (Haptoncus) morbosa* new species; c - *E. (Haptoncus) pygidioacuta* new species; d - *E. (Epuraea) acea* new species; e - *E. (Epuraea) acelsa* new species.



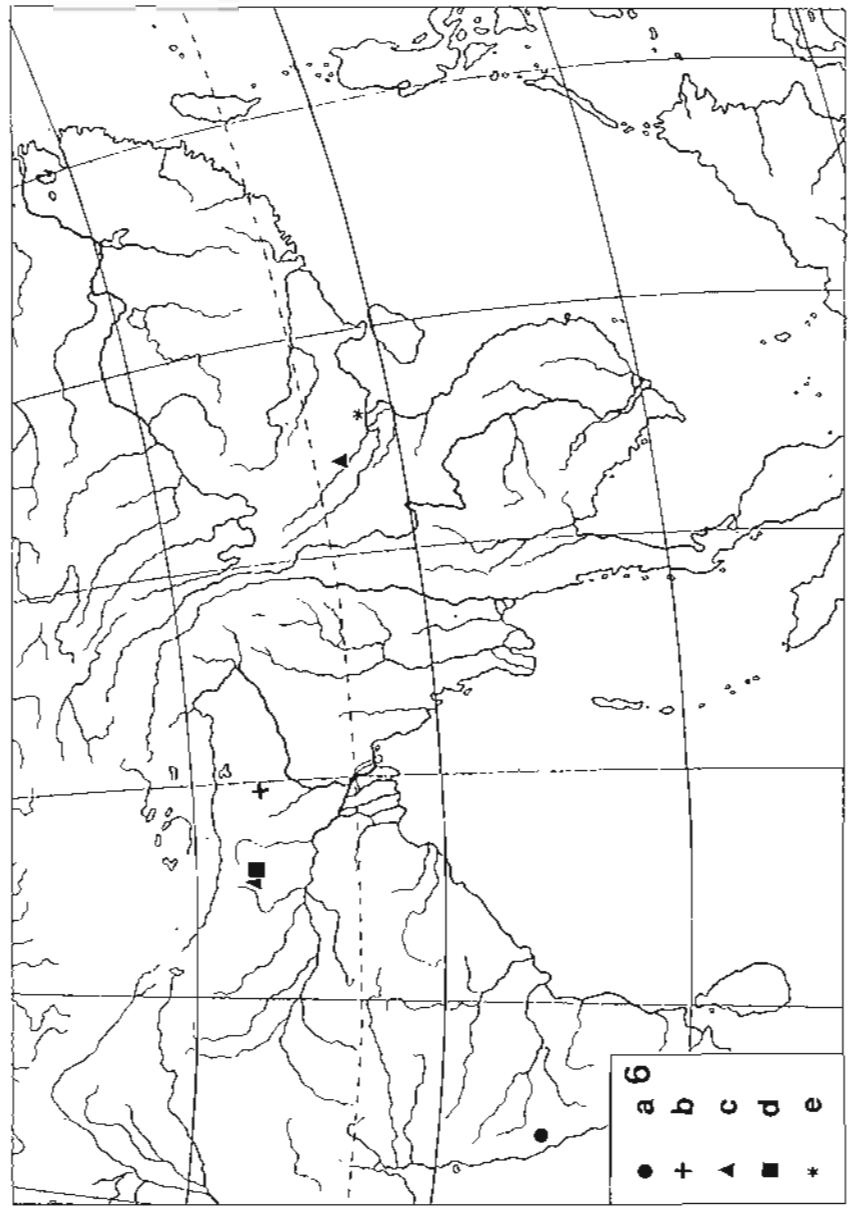
Map 4. Species of subgenus *Epuraea (Epuraea)* sensu stricto

a - *E. (E.) aduncta*; b - *E. (E.) basisinuata*; c - *E. (E.) cameroni* new species; d - *E. (E.) championi* new species; e - *E. (E.) compacta* new species.



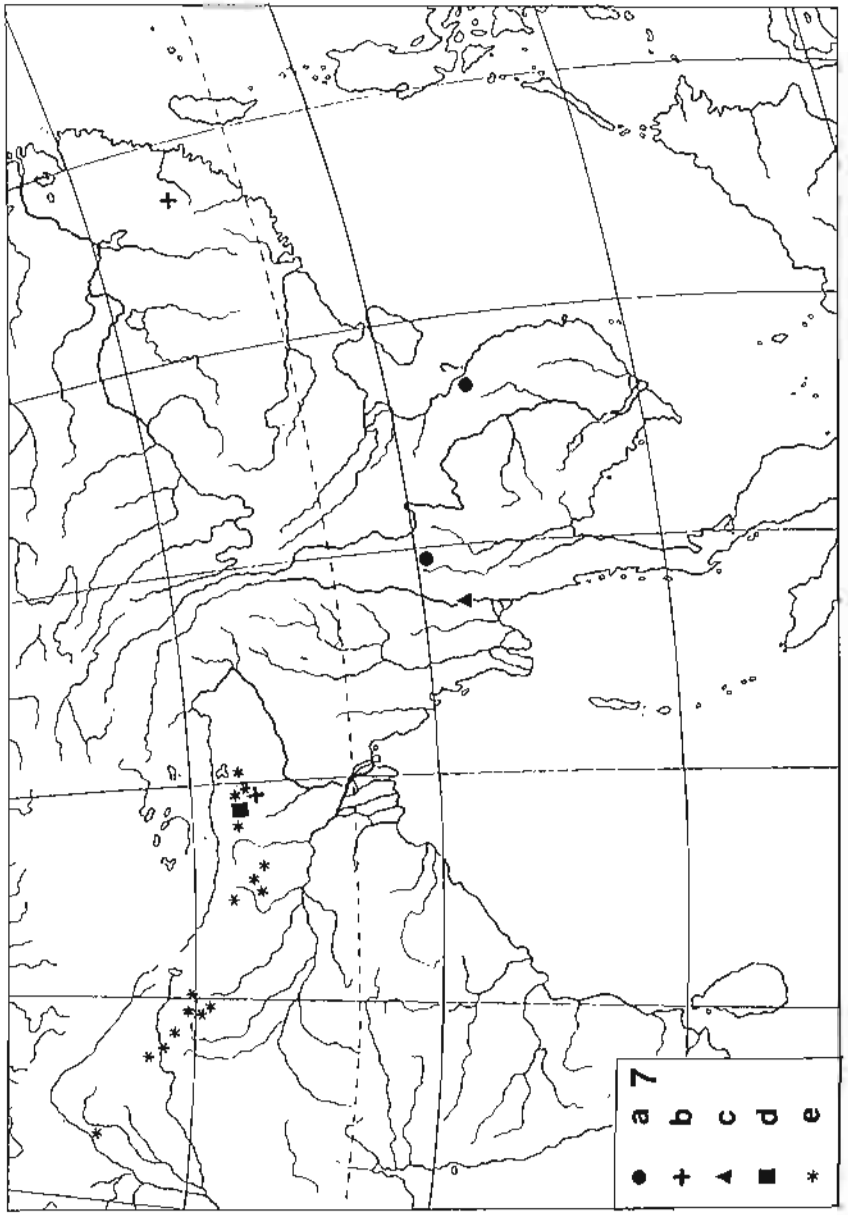
Map 5. Species of subgenus *Epuraea (Epuraea)* sensu stricto

a - *E. (E.) contraria* new species; b - *E. (E.) cribrata*; c - *E. (E.) cyclops*; d - *E. (E.) deterior*; e - *E. (E.) funeraria*.



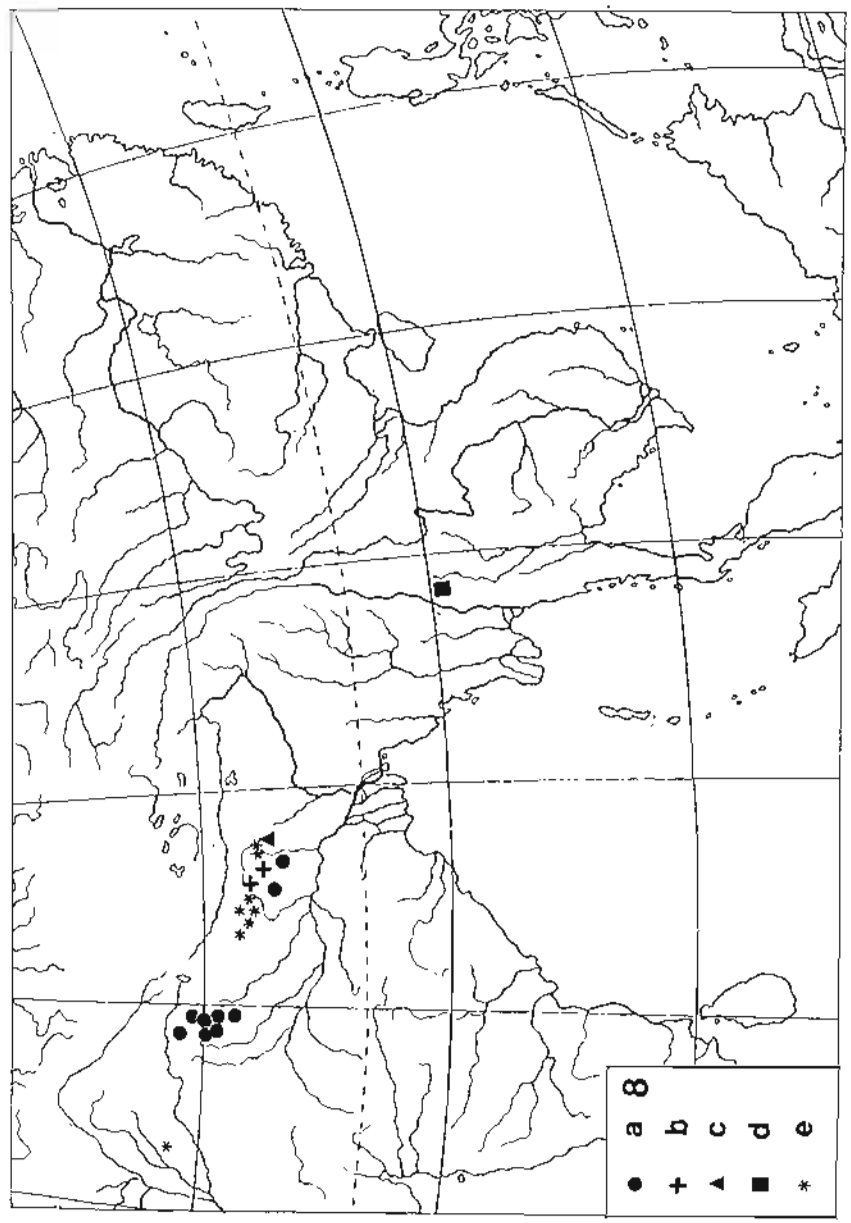
Map 6. Species of subgenus *Epuraea (Epuraea)* sensu stricto

a - *E. (E.) indica*; b - *E. (E.) laeta* new species; c - *E. (E.) longiungulata* new species; d - *E. (E.) nepalica* new species; e - *E. (E.) pallescens*.



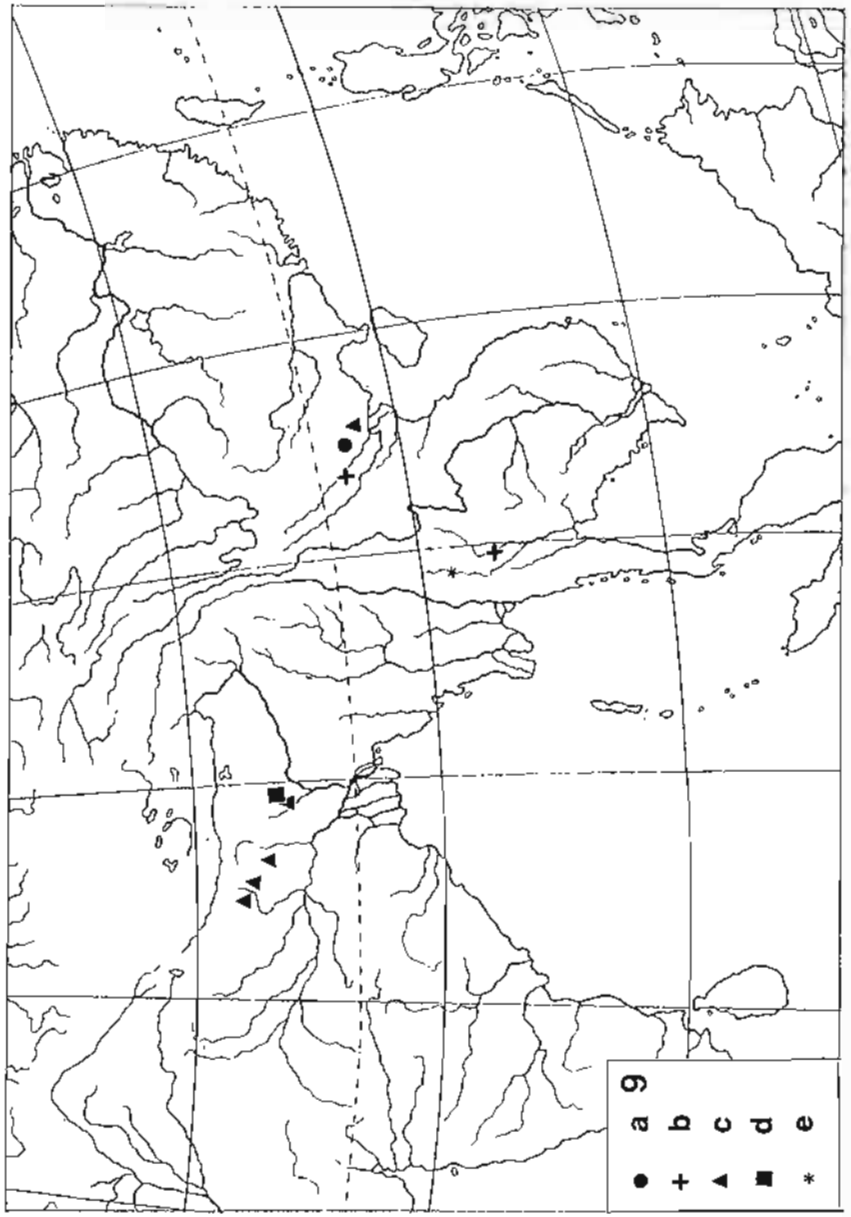
Map 7. Species of subgenus *Epuraea (Epuraea)* sensu stricto

a - *E. (E.) pliginskyi*; b - *E. (E.) polina*; c - *E. (E.) propingua*; d - *E. (.) propria* new species; e - *E. (E.) pumila*.



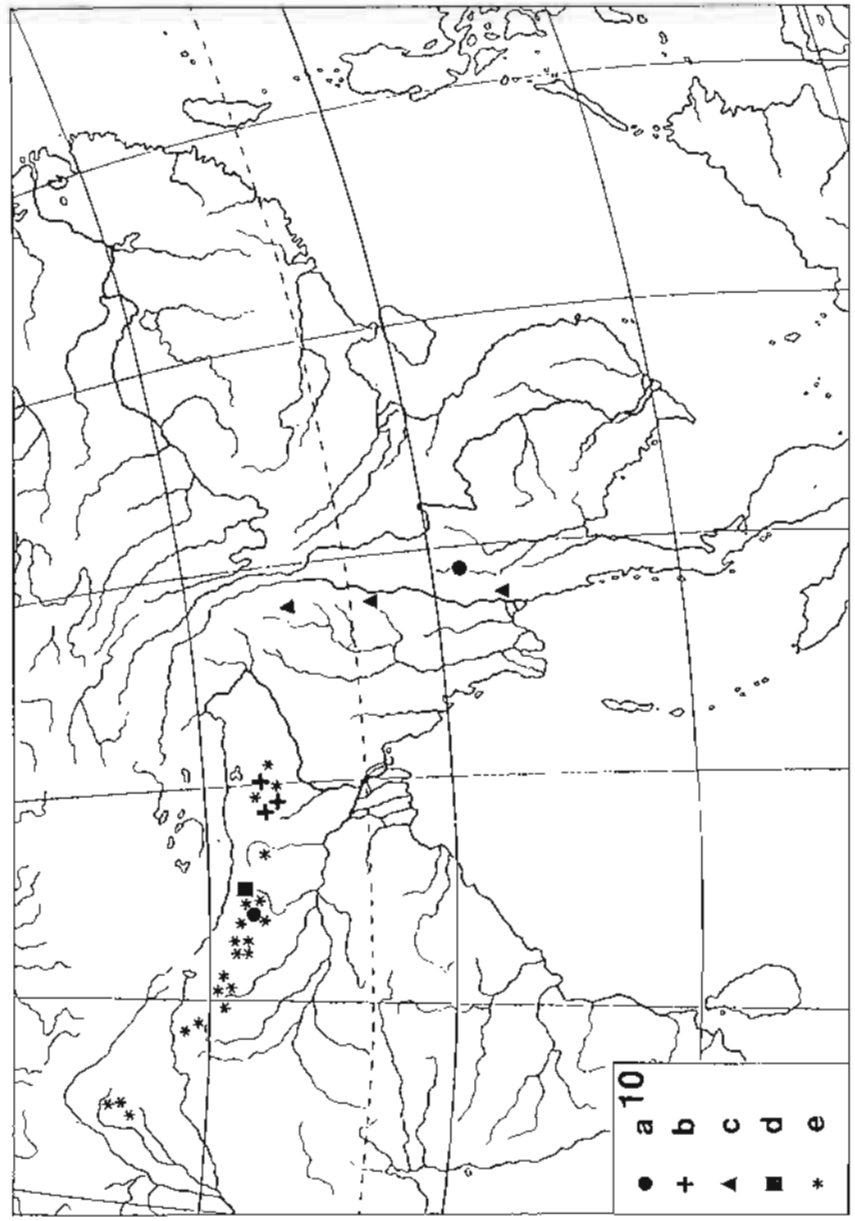
Map 8. Species of subgenera *Epuraea (Epuraea)* sensu stricto and *E. (Ommoraea)* new subgenus

a - *E. (Epuraea) riedeli* new species; b - *E. (E.) simplissima* new species; c - *E. (E.) subnitida* new species; e - *E. (Epuraea) tenuis*; d - *E. (Ommoraea) acutocaudalis* new subgenus and species.



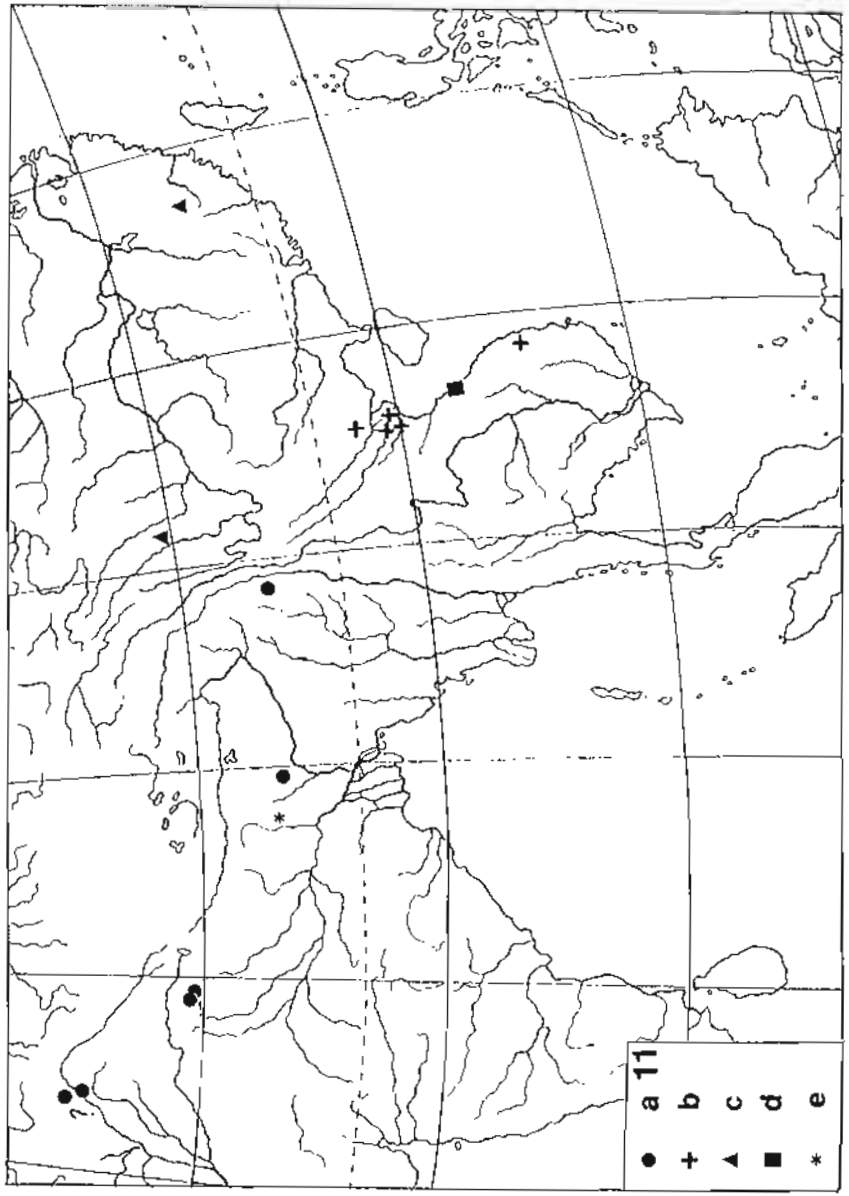
Map 9. Species of subgenus *Epuraea (Micruria)*

a - *E. (M.) accidentis*; b - *E. (M.) alutidorsum* new species; c - *E. (M.) atra*; d - *E. (M.) biplagiata* new species; e - *E. (M.) bullata* new species.



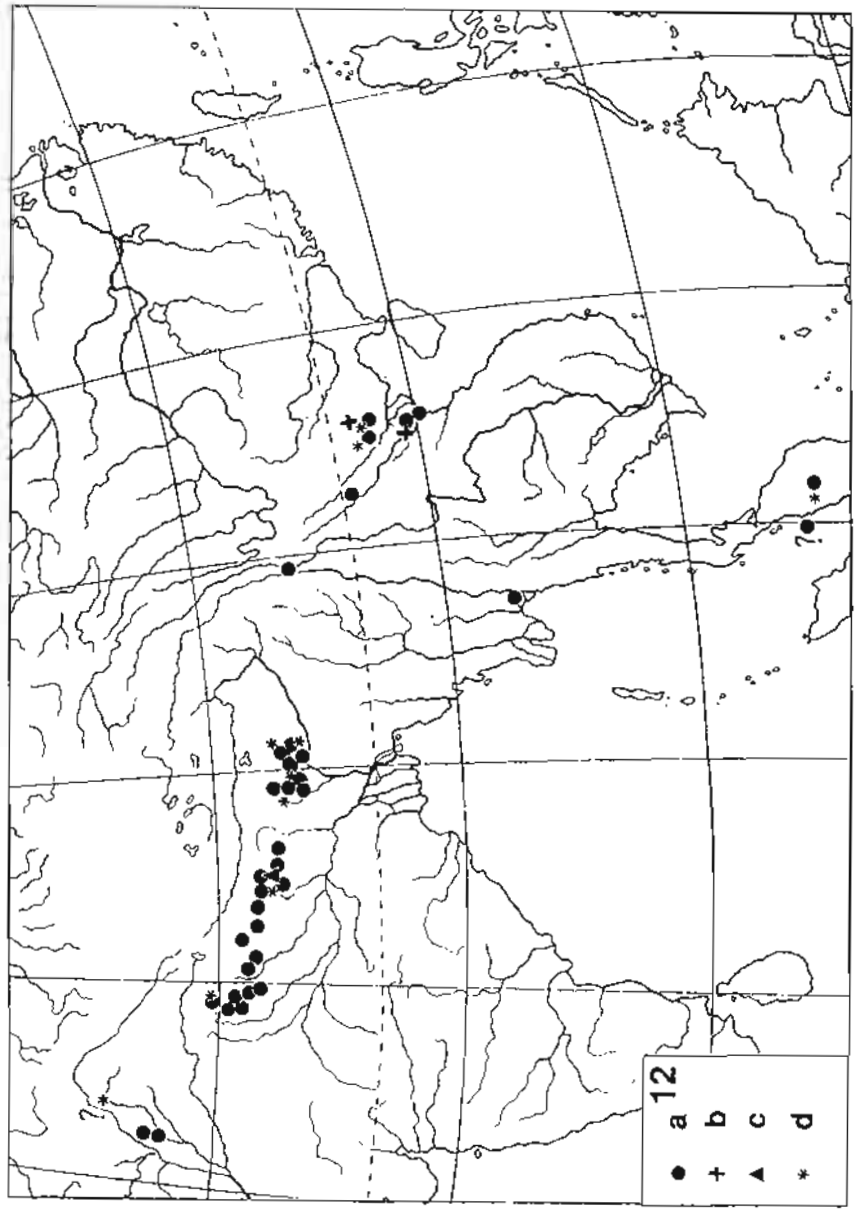
Map 10. Species of subgenus *Epuraea (Micruria)*

a - *E. (M.) calcarifera* new species; b - *E. (M.) cerina*; c - *E. (M.) consobrina*; d - *E. (M.) himalayaensis* new species; e - *E. (M.) convexa*.



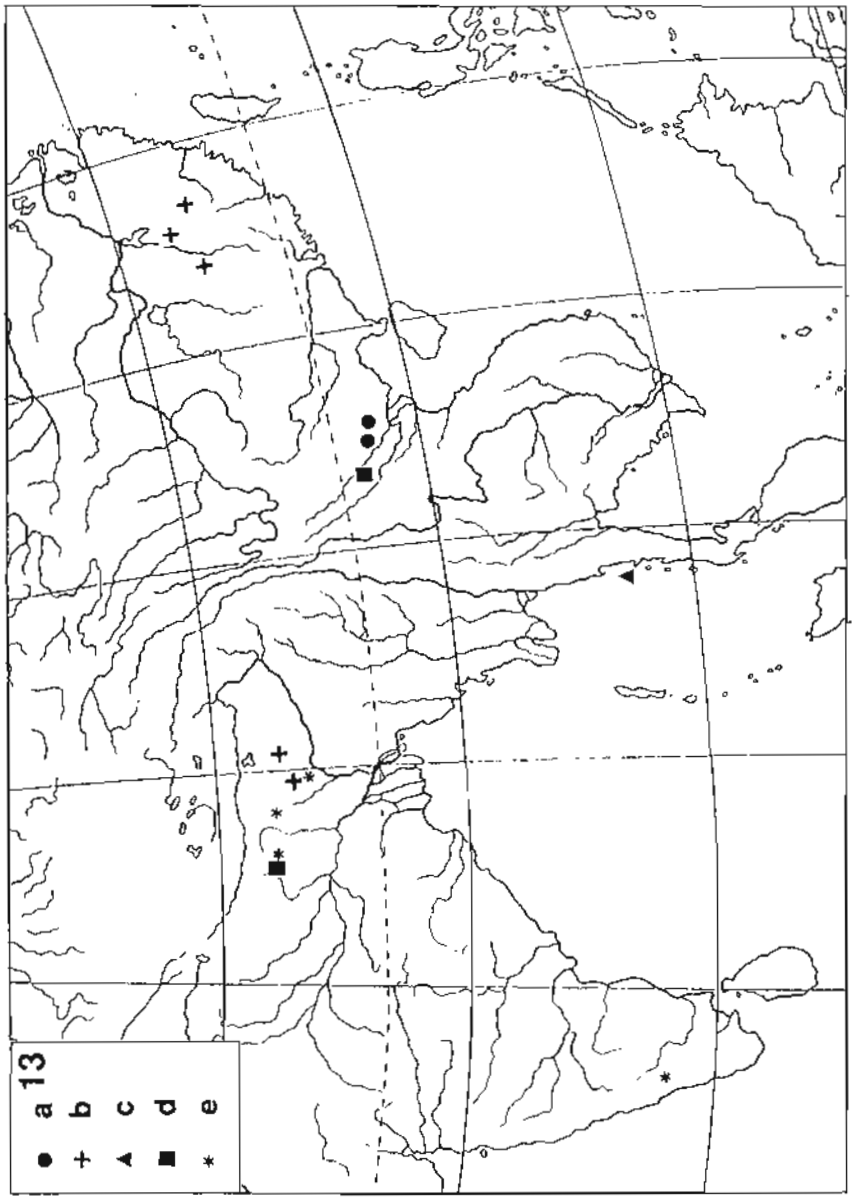
Map 11. Species of subgenus *Epuraea (Micruria)*

a - *E. (M.) insolita*; b - *E. (M.) kompantzevi* new species; c - *E. (M.) lisa*; d - *E. (M.) rhombica*; e - *E. (M.) rotundula* new species.



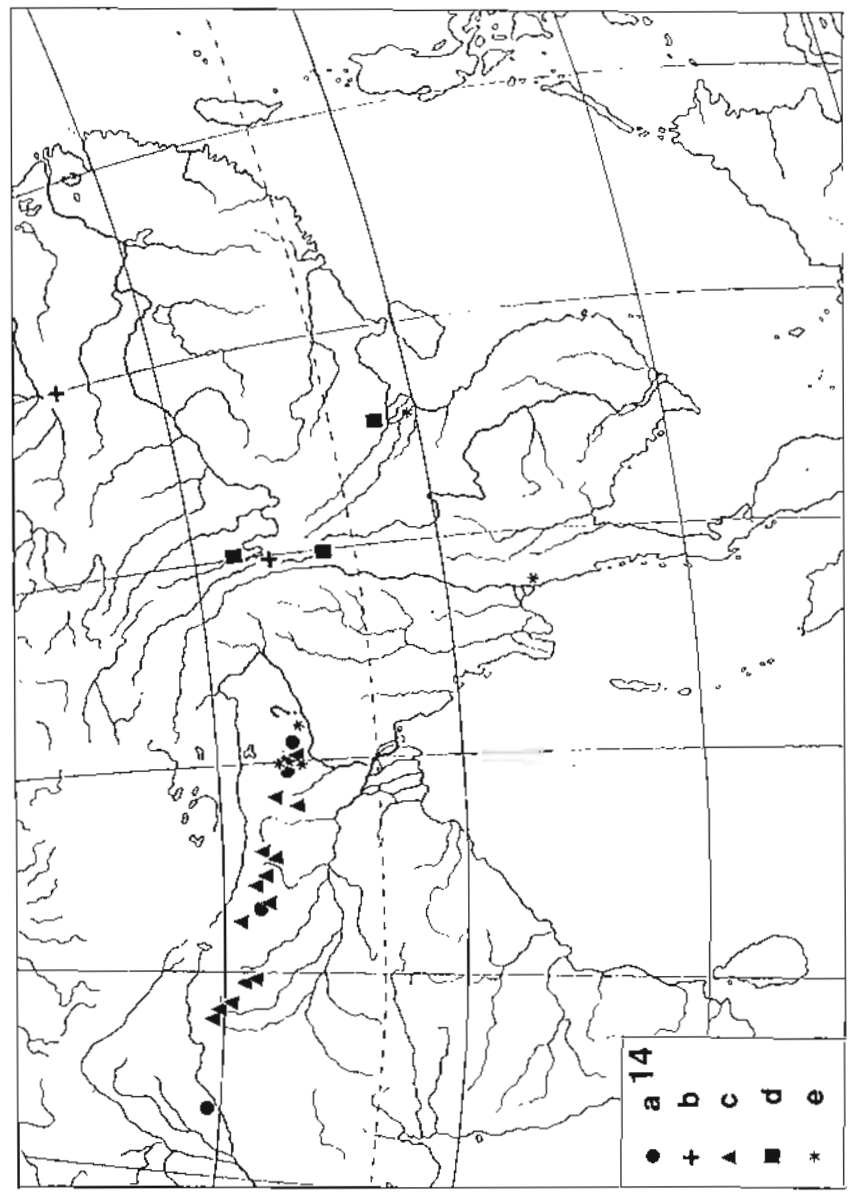
Map 12. Species of subgenus *Epuraea (Micruria)*

a - *E. (M.) reticulata*; b - *E. (M.) scapha* new species; c - *E. (M.) specialis* new species; d - *E. (M.) subtilis*.



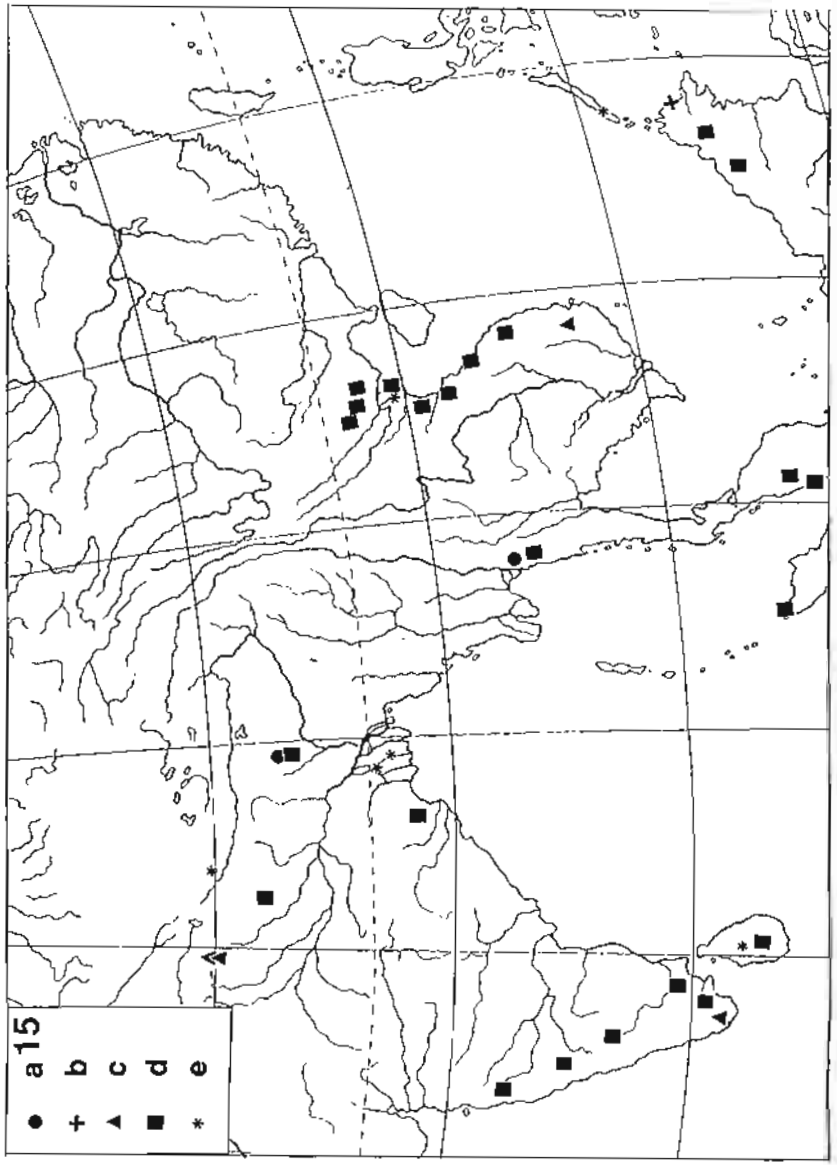
Map 13. Species of genus *Epuraea* sensu lato and subgenus *Tetrisus (Trimenus)*

a - *E. (Micruria) tuberculata*; b - *E. (M.) wittmeri*;
c - *E. (Ceroncura) dubitabilis*; d - *Tetrisus (Trimenus) accomodus*; e - *T (T.) curvipes*.



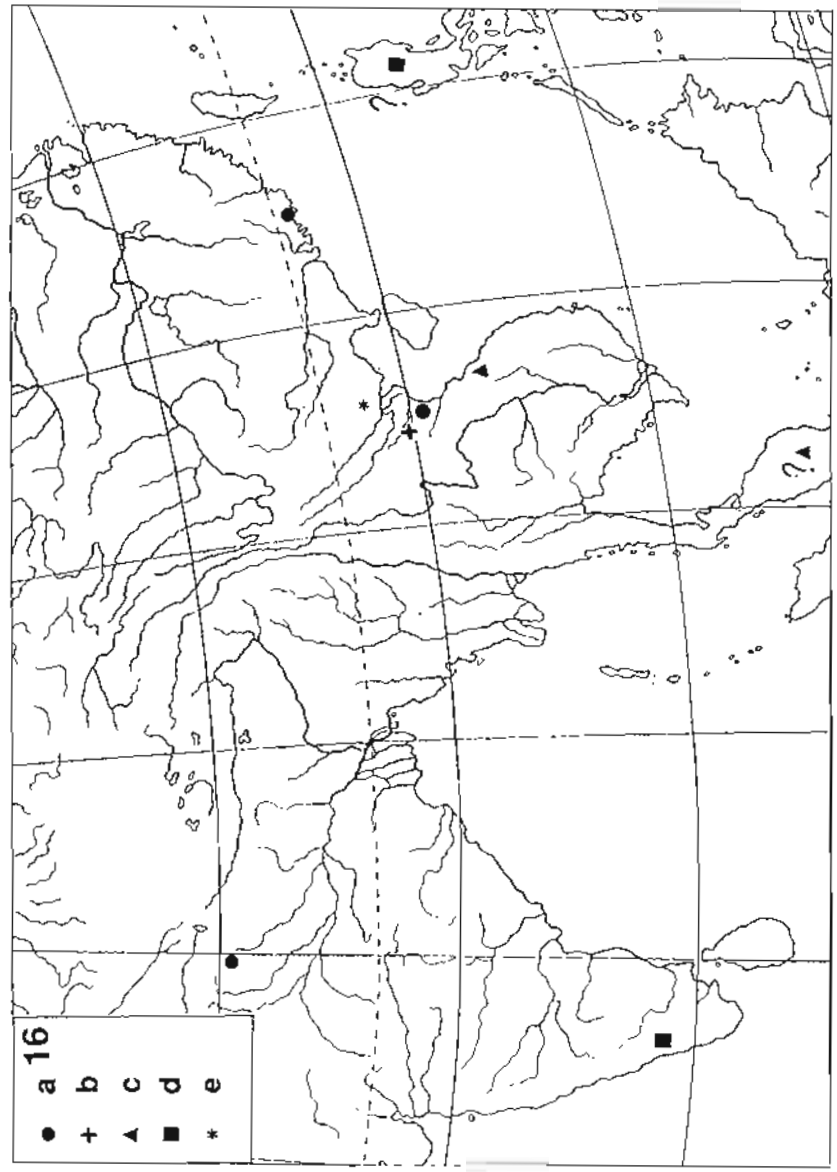
Map 14. Species of subgenus *Epuraea (Epuraeanella)* and genus *Grouvellia*

a - *Epuraea (Epuraeanella) fossicollis*; b - *E. (E.) hammondi*; c - *E. (E.) martensi* new name;
d - *E. (E.) nigerrima* new species; e - *Grouvellia picea*.



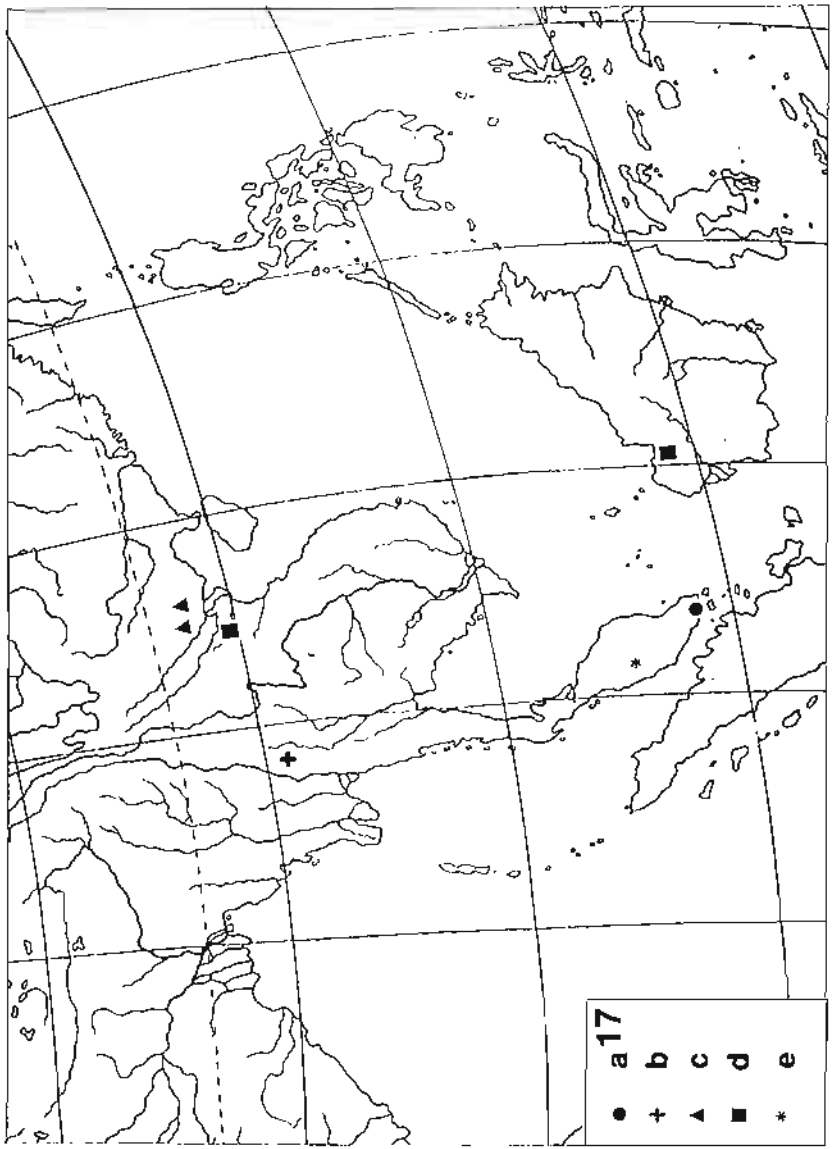
Map 15. Species of subgenus *Tetrisus (Trimenus)* and genus *Taenioncus*

a - *Tetrisus (Trimenus) epuraeoides*; b - *T. (T.) erugatus*; c - *T. (T.) hydroporoides*; d - *T. (T.) parallelopipedus*; e - *Taenioncus cylindricus*.



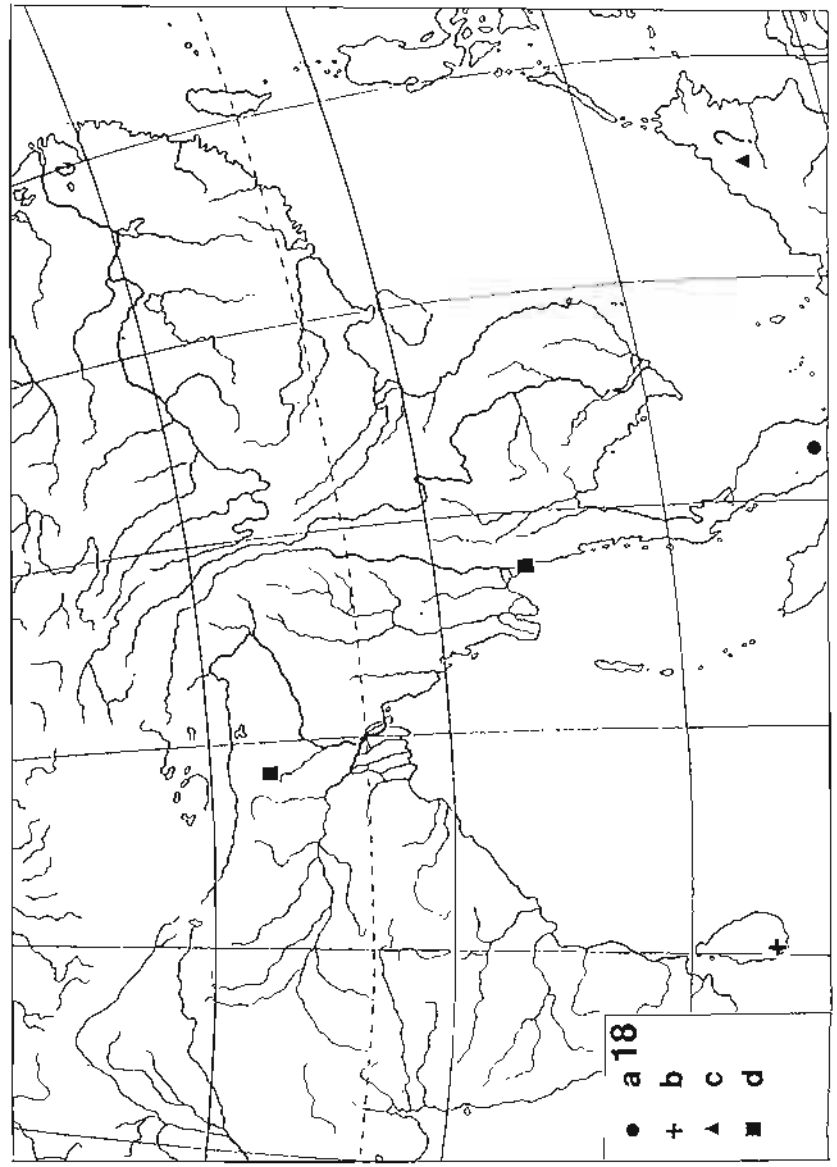
Map 16. Species of genera *Taenioncus* and *Raspinotus*

a - *Taenioncus tenuis*; b - *Raspinotus combinatus*; c - *R. depressus*; d - *R. excellens*; e - *R. hospitus*.



Map 17. Species of genera *Raspinotus* and *Taeniolinus* new genus

a - *Raspinotus krakingus* new species; b - *R. schawalleri* new species; c - *R. simples*; d - *R. spinosus*; e - *Taeniolinus johnsoni* new species.



Map 18. Species of *Taeniolinus* and *Carpocryraea* new genera

a - *Taeniolinus nitidissimus* new species; b - *T. parvus* new species; c - *T. spinigerus* new species; d - *Carpocryraea familiaris*.