

New Palaearctic nitidulid beetles, with notes on synonymy and systematic position of some species (Coleoptera: Nitidulidae)

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The paper includes descriptions of the new species *Eपुरaea (Micruria) aldridgei* sp. n. from Shensi (NE China) and *Meligothes (Clypeogethes) canariensis* sp. n. from the Canary Islands, and also notes on synonymy and systematic position of some species of *Eपुरaea* Erichson, 1843 (subgenera *Eपुरaea* and *Eपुरaeanellella* Crotch, 1874), *Amphicrossus* Erichson, 1843, *Meligothes* Stephens, 1831 (subgenus *Clypeogethes* Scholtz, 1932) and *Physoronia* Reitter, 1884 (subgenus *Pocadioides* Ganglbauer, 1899, stat. n.) distributed in the Palaearctic Region. In addition, synonymy of *Cametis* Motschulsky, 1863 and *Nitidopecten* Reichensperger, 1913 with *Amphicrossus* Erichson, 1843, *Nitidopecten comes* Reichensperger, 1913 with *Amphicrossus parallelus* Grouvelle, 1912, and *Africanips* Lechanteur, 1959 with *Cryptarcha* Shuckard, 1839 is established. Diagnoses and systematic position of *Physoronia*, *Lordirodes* Reitter, 1884 and *Pocadioides* are discussed. *Amphicrossus accidentus* nom. n. pro *Lobostoma picea* Fairmaire, 1892, non *Cametis picea* Motschulsky, 1863 and *Cryptarcha lechanteuri* nom. n. pro *Africanips niger* Lechanteur, 1959, non *Cryptarcha nigra* Sharp, 1891 are proposed. Lectotypes are designated for *Eपुरaea (Eपुरaea) danica* Sjöberg, 1939, *E. (E.) hilleri* Reitter, 1877, *Cametis picea* Motschulsky, 1863, *Amphicrossus parallelus*, *Nitidopecten comes* and *Meligothes (Clypeogethes) diversus* Schilsky, 1893.

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The specimens mentioned in this paper are deposited in: Deutsches Entomologisches Institut, Eberswalde-Finow (DEI); Zoologisches Museum Alexander Koenig, Bonn (MAK); Museum für Naturkunde, Berlin (MHB); Musée Royal de l'Afrique Centrale, Tervuren (MRAC); Natural History Museum, London (NHL); Naturhistorisches Museum, Wien (NMW); Naturhistoriska Riksmuseet, Stockholm (NRS); Természettudományi Múzeum, Budapest (TMB); Zoological Institute of the Russian Academy of Sciences, St.Petersburg (ZIN); Zoologisk Museum, København Universitet (ZMK); Zoological Museum at Lund University, Lund (ZML); Zoological Museum at Moscow State University, Moscow (ZMU); Staatliches Museum für Naturkunde, Stuttgart (SMS); Zoologische Staatssammlung, München (ZSM).

References to species considered in this paper are given by Grouvelle (1913) and Audisio (1993).

DESCRIPTIONS OF NEW SPECIES

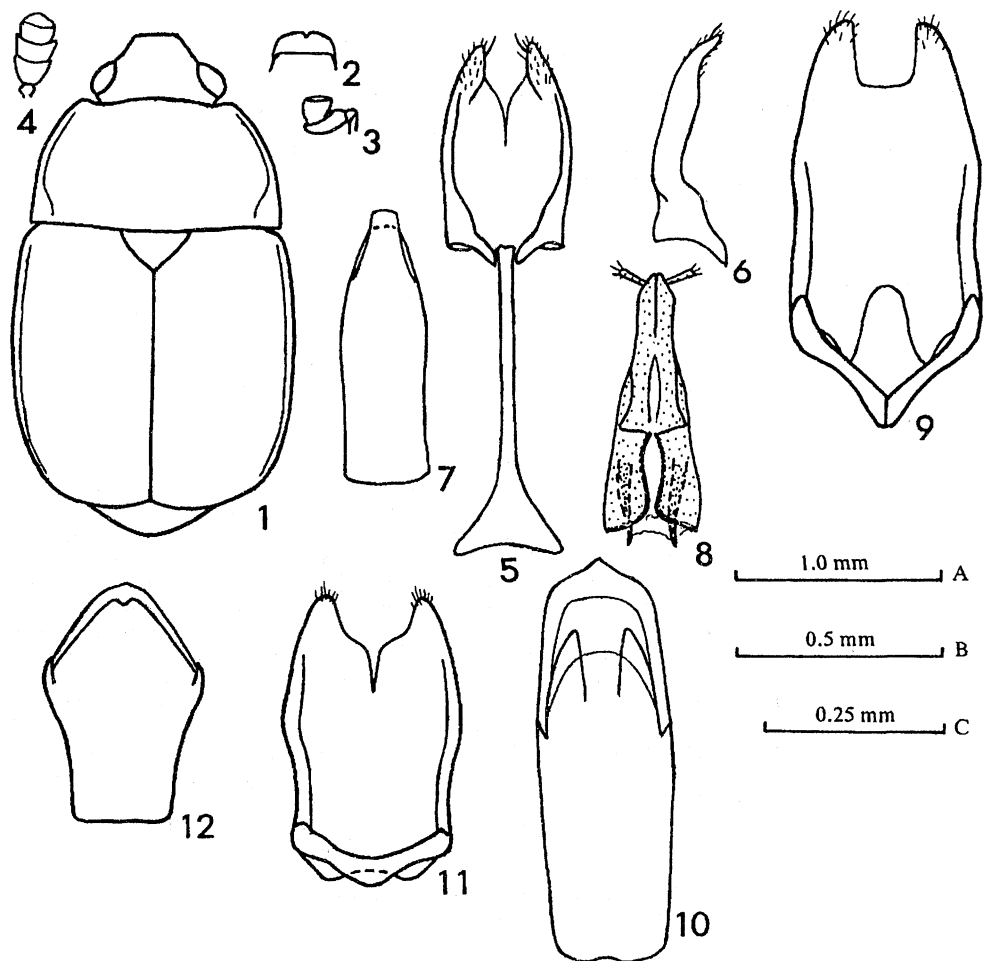
Eपुरaea (Micruria) aldridgei sp. n. (Figs 1-8)

Holotype. ♂ (NHL), China, "Shensi, Hua Shan (3), 31.7.66", "N. China, P.M. Hammond, B.M. 1967-215", "3840-3846".

Paratypes. 6 specimens (NHL, ZIN) with identical labels.

Description of holotype (♂). Length 2.4, breadth 1.4, height 0.7 mm. Moderately convex dorsally and ventrally; unicolorous light reddish; dorsum and underside slightly shining; dorsum with dense and recumbent, strongly conspicuous golden hairs about 2.5-3.0 times as long as distance between their insertions; underside with shorter and much less conspicuous pubescence.

Head and pronotal surface with distinct oval punctures nearly as large as eye facets or larger, interspaces between them about a



Figs 1-12. 1-8, *Epuraea (Micruria) aldridgei* sp. n.: 1, body, dorsal; 2, fore edge of head, dorsal; 3, labial palpus; 4, antennal club; 5, tegmen with fork-sclerite, ventral; 6, tegmen, lateral; 7, penis trunk, dorsal; 8, ovipositor, ventral; 9-10, *Meligethes (Clypeogethes) canariensis* sp. n. 9, tegmen, ventral; 10, penis trunk, dorsal; 11-12, *M. (C.) diversus diversus* 11, tegmen, ventral (lectotype); 12, penis trunk, dorsal (lectotype). Scales: A – to Fig. 1; B – to Figs 2-4; C – to Figs 5-12.

puncture diameter, smoothly and cellularly microreticulated. Elytral surface similar to that of head and pronotum, but punctures smaller and interspaces between them broader and with more contrasting microreticulation. Pygidium with punctures similar to those on other dorsal sclerites, but considerably denser; interspaces between them extremely finely and densely alutaceous. Ventral surface similar to dorsal one, 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, flattened; eyes composed of moderately small facets. Labrum with short excision between very close lobes. Mandibles slightly exposed before labrum. Antennal grooves slightly outlined only at sides of mentum. Mentum of usual shape with bisinuate fore edge, about 4 times as wide as long. Last labial palpomere widened to apex, about as long as wide. Antennae slightly longer than head breadth, club nearly $2/7$ of total antennal length and about 1.5 times as long as wide, consisting of segments with subequal length, antennomere 3 a little shorter than antennomere 2 and

slightly longer than antennomere 4. Pronotum moderately and evenly convex, with truncate apex and gently sloping sides to narrowly explanate lateral edges (as widely explanate as width of flagellum), about twice as wide as long. Scutellum subtriangular with rounded apex. Elytra a little longer than their combined width; sides gently and moderately sloping to explanate side edges (as widely explanate as pronotal sides), apices transversely subtruncate and forming a blunt sutural corner. Pygidium moderately extended from under elytra and slightly convex, its apex truncate, with very widely rounded apex of anal sclerite exposed.

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 greater than that between middle coxae. Mesosternum without a distinct carina. Metasternum slightly convex and with a marked median suture in distal quarter before its hind edge, very shallowly and arcuately emarginate between hind coxae. Ventricle 1 about as long as ventrites 2-4 together or as long as hypopygidium, latter with a bisinuate apex. Epipleura 1.5 times as wide as antennal club.

Legs moderately long and narrow. Tibiae subequal in width to, or narrower than, antennal club (especially fore ones); their outer edge straight, there are a more prominent subapical process on fore tibiae and a subapical spine on middle and hind ones; outer edge of middle tibia with two rows of stout spines, hind tibia with rows of thinner spines. Femora with fore and hind edges gently convex; fore and middle femora a little more than 1.5 times as wide as corresponding tibiae; hind femora nearly 2.5 times wider than hind tibiae. Fore tarsi 3/5 as wide as corresponding tibiae, middle and hind tarsi much narrower; claws slightly toothed at base.

Aedeagus weakly sclerotized.

♀. Pygidium almost as equiangular triangle, with narrowly rounded apex. Fore tarsi twice narrower than fore tibiae. Ovipositor weakly sclerotized.

Variations. Length 2.2-2.7 mm. Punctuation and sculpture of elytra variable: some paratypes with larger and denser punctures and more conspicuous microreticulation.

Comparison. This new species belongs to a generalized group within the subgenus (*me-*

lanocephala-group: see Kirejtshuk, in press), which is characterized by the 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 (looking like two longitudinal stripes of small sclerites) invaginated in its trunk. This group includes the East Palaearctic (Far East) and Indo-Malayan species [*E. (M.) consanguinea* Grouvelle, 1914, *E. (M.) convexa* Grouvelle, 1908, *E. (M.) harmandi* Grouvelle, 1902, *E. (M.) lisa* Kirejtshuk, 1987, *E. (M.) japonica* (Motschulsky, 1860)] and the West Palaearctic *E. (M.) melanocephala* (Marshall, 1802). The new species is characterized by the lack of visible armature of inner sac of penis trunk, rather robust and light body with very contrasting dorsal pubescence. It differs from all members of the *melanocephala*-group in its very close and short median excision between labral lobes. From other species with close and short excision between labral lobes (*E. (M.) auripubens* Reitter, 1901 and some species described by Kirejtshuk, in press) this new species differs in the shape of body, convexity of dorsum, character of punctation and sculpture, structure of male tibiae and genitalia.

Meligethes (Clypeogethes) canariensis sp. n. (Figs 9-10)

Meligethes planiusculus Audisio, 1993 and others (partim).

Holotype. ♂ (NRS), **Canary Islands**, "Tenerife, Monte Aguire, 17.2.49, Lindberg".

Paratypes. 1 ♂ (ZIN), labelled as holotype; 1 ♂, 2 ♀ (ZIN), "Tenerife, Anago, Boiladero, 700 m, 2.3.50, Lindberg"; 1 ♀ (NRS), "Can., La Palma, supra El Paso, 600, 4.4.50, Lindberg"; 3 ♀ (ZIN), "Can. Hierro, Valverde, 600 m, 24-30.3.50, Lindberg"; 16 spec. (ZIN, ZML), "Gomera, Chorros de Epina, 9.IV.1981, A.E. Törnvall"; 1 spec. (ZML), "Gomera, 11.IV.1981, A.E. Törnvall"; 1 spec. (ZML), "El Cedro, Montana Quemada, 28.XII.1981, A.E. Törnvall"; 15 spec. (ZIN, ZML), "Tfe, Erjos, 6.IV.1981, A.E. Törnvall"; 1 spec. (ZML), "Tfe, Anaga, Chinobre, 10.II.1987, A.E. Törnvall"; 1 spec. (ZML), "S. Cruz, Palm, 2-27.4.1967"; 1 spec. (ZML), "Gran Canaria, 12/68, Th. Palm".

Description of holotype (♂). Length 2.5, breadth 1.0, height 0.6 mm. Moderately convex dorsally and ventrally; unicolorous blackish with appendages brownish and fore tibiae and tarsi reddish; dorsum and underside rather shiny; dorsum with dense and recumbent, strongly conspicuous yellowish

golden hairs about 2.5-3.0 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 or larger; interspaces between them about half a puncture diameter, smooth and shining. Elytra with punctures nearly as large as eye facets; interspaces between them narrower than a puncture and rather smooth. Prosternum with punctures as large as or smaller than eye facets and separated by markedly less than a puncture diameter; interspaces smooth. Metasternum in the middle and ventrite 1 with punctures as large as or smaller than eye facets and separated by about half a puncture diameter or yet narrower and smooth.

Pronotum moderately and evenly convex, with truncate apex and with sides steeply sloping to widely bordered lateral edges, widest about at the middle. Elytra a little longer than their combined width; sides gently and rather steeply sloping to narrowly bordered side edges; apices obliquely subtruncate and forming a blunt sutural corner. Pygidium moderately exposed from under elytra and slightly convex, its apex very widely rounded. Prosternal process with widely rounded apex and nearly as wide as antennal club. Distance between middle coxae about twice and that between hind ones nearly 3.5 times greater than that between fore coxae. Mesosternum medially bulged and with concave hind edge. Metasternum deeply and broadly depressed in the middle. Hypopygidium nearly as long as ventrite 1 and widely rounded at apex, with a weak shining tubercle before the middle of hind edge.

Legs moderately long and narrow. Fore tibiae about as wide as antennal club, with strong and rather large teeth along outer edge; middle and hind tibiae 1.3 times as wide as antennal club, their outer edge with stout spines nearly as long as tarsal claw. Femora with fore and hind edges gently convex; fore and hind femora about twice, middle femora a little more than 1.5 times as wide as corresponding tibiae. Fore tarsi 2/3 as wide as fore tibiae, middle and hind tarsi much narrower; claws simple and narrow.

Aedeagus heavily sclerotized.

♀. Differs from ♂ in flattened metasternum and slightly narrower fore tarsi. Ovipositor moderately sclerotized.

Variations. Length 2.3-2.8 mm. Coloration of appendages is rather variable: bright reddish to dark pitchy brown. Some variability is also traced in punctuation and sculpture. Males from Gomera and partly from Tenerife (Erjos) have the outline of the shining tubercle on hypopygidium intermediate between the typical of *M. (C.) canariensis* sp. n. and the typical of *M. (C.) planiusculus*.

Notes. This species was known to Audisio (1993) who noticed that the Canarian specimens are lighter than those from Europe and Africa, although Easton (1955a) and Wollaston (1863, 1864: as *Meligethes tristis* Sturm, 1845) wrote about black specimens with dark legs. Nevertheless, all specimens from the Canary Islands have distinctly yellowish pubescence.

Diagnosis. This new species belongs to the *planiusculus*-group and is very similar to the species compared below:

M. (C.) canariensis sp. n.

– elytral punctures nearly as large as eye facets, interspaces between them narrower than a puncture diameter and rather smooth;

– dorsal pubescence yellowish golden and very conspicuous;

– appendages reddish to brownish;
– prosternal process nearly as wide as antennal club, with punctures as large as or smaller than eye facets and separated by markedly narrower interspaces than a puncture diameter;

– male metasternum deeply and broadly depressed in the middle, with punctures as large as or smaller than eye facets and separated by about half a puncture diameter or yet less;

– male hypopygidium with a weak shining tubercle rather extending before the middle of hind edge;

M. (C.) isoplexidius Wollaston, 1854

– elytral punctures nearly as large as eye facets, interspaces between them about as a puncture diameter and smoothly microreticulated (irregular lines from puncture to puncture);

– dorsal pubescence and appendages as in *M. (C.) canariensis* sp. n.;

– prosternal process markedly wider than antennal club, with punctures as large as or larger than eye facets and separated by about a puncture diameter;

– male metasternum deeply triangularly depressed in the posterior half, with punctures in the depression as large as or larger than eye facets and separated by about a puncture diameter or slightly less;

– male hypopygidium with a shining median carina in the posterior third, the latter forked (V-shaped) before hind edge;

M. (C.) planiusculus (Heer, 1841)

– elytral punctation as in *M. (C.) canariensis* sp. n.;

– dorsal pubescence greyish silvery and, as a rule, moderately conspicuous;

– appendages dark brown to black; femora and middle and hind tibiae often blackish;

– prosternal process markedly wider than antennal club, with punctures as large as to much larger than eye facets and separated by about a puncture diameter (rarely much less than a puncture diameter);

– male metasternum weakly and broadly or even scarcely depressed in the middle, with punctures in the depression as large as or larger than eye facets and separated by about a puncture diameter or slightly less;

– male hypopygidium with a weak shining tubercle at the middle of hind edge, sometimes slightly extended forwards along the middle.

NOTES ON SYNONYMY
AND SYSTEMATIC POSITION

Eपुरaea (Eपुरaea) hilleri Reitter, 1877
(Figs 11-23)

Nitidula castanea Duftschmid, 1825 (Austria), non *Nitidula castanea* C.R. Sahlberg, 1820 et non *Eपुरaea castanea* Melsheimer, 1846.

Eपुरaea hilleri Reitter, 1877 (Japan); Sjöberg, 1939a (also East Siberia).

Eपुरaea (Eपुरaea) castanea: Reitter, 1919; Sjöberg, 1939a; Spornraft, 1967; Jelínek, 1993 (Bohemia, Moravia including Silesia, Slovakia).

Eपुरaea (Eपुरaea) concurrens Sjöberg, 1939b (southern Siberia, Mongolia), *syn. n.*; Audisio, 1993 (Finland, Urals, Mongolia, Central Siberia); Rutanen, 1993.

Eपुरaea (Eपुरaea) fageticola Audisio, 1991, *syn. n.*; Audisio, 1993 (Central Europe: from Denmark and southern Finland to Sicily, northern Greece, northern Moldavia and central Ukraine; from Germany, Austria and northern Italy to Vologda, Vladimir, Tambov and Volgograd provinces).

Eपुरaea (Eपुरaea) hilleri: Kirejtshuk, 1992 (also Primorsk Terr.).

Types examined. Lectotype (designated here) of *E. hilleri*, ♀ (MHU), "Japan, Coll. Hiller" (Reitter,

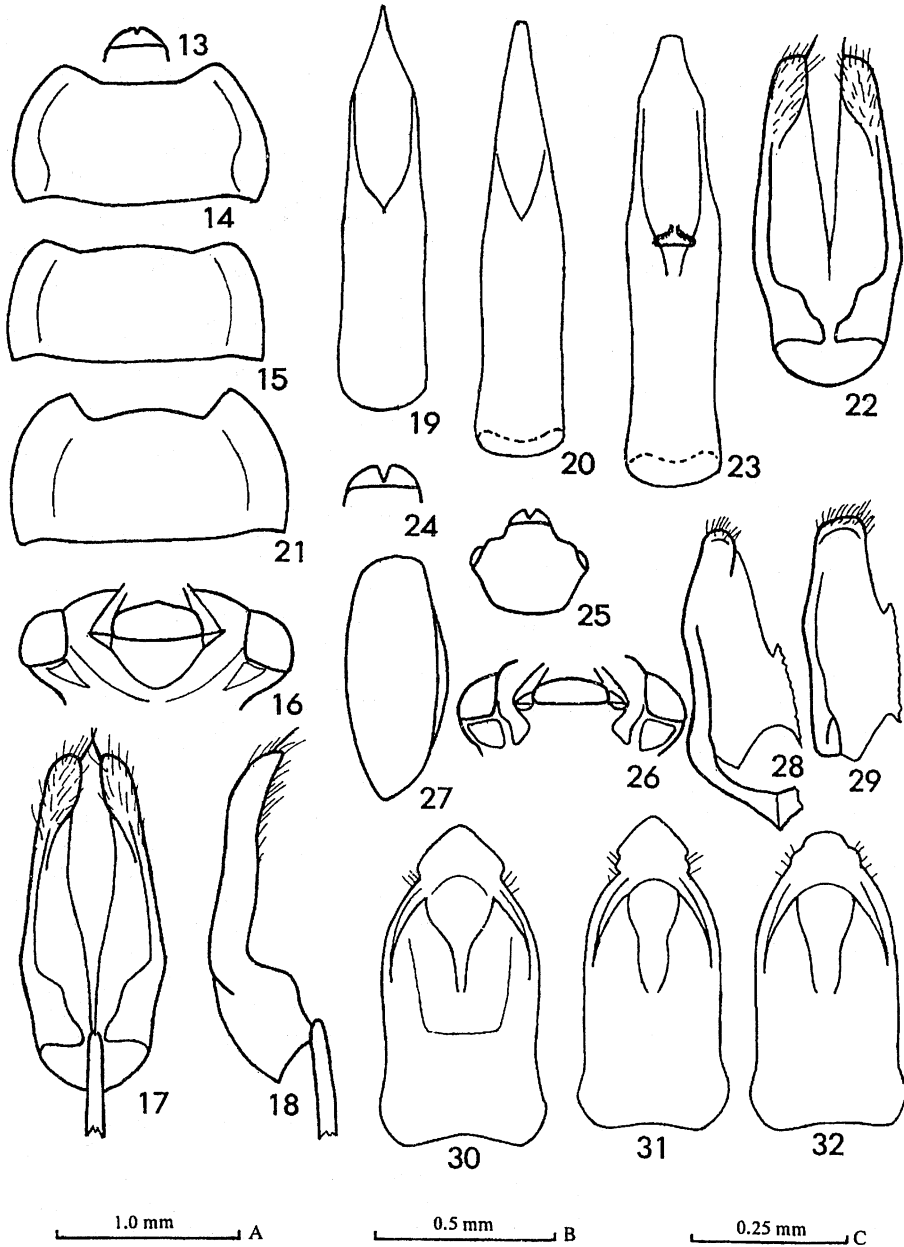
1877: "Bei Hagi von H. Hiller am Oshi rojama geklopft"). 1 paralectotype of *E. hilleri*, female (MHU) with identical labels but possibly conspecific with *E. (Eपुरaea) argus* Reitter, 1894.

Other specimens examined (more than 100). *E. (E.) hilleri* f. *fageticola* stat. n. and intermediate specimens: Bosnia (NRS, ZIN); Austria (MHB, NMW); Hungary (NRS); Romania (MHB, ZML, ZSM); Greece (ZMK); Russia, Ul'yanovsk Prov.: Aksakovo (ZIN). Azerbaijan: "Lenkoran, Talysh, Sandzharyady" (ZIN). Undeniable *E. (E.) hilleri* f. *typica*: Leningrad Prov.: "Severnye Novinki" (ZIN); Moscow Prov. (ZIN, ZMU); Altai Terr.: Barnaul (ZIN); Krasnoyarsk Terr. (ZIN); Khabarovsk Terr. (SMS, ZIN); Primorsk Terr.: Vinogradovka and Razdol'naya (ZIN).

Systematic position. This species is somewhat intermediate between the subgenera *Eपुरaea* Erichson, 1843, s. str. and *Eपुरaeanelia* Crotch, 1874, since it is characterized by deep and dense punctation of dorsum, widely explanate pronotal and elytral sides, more or less distinct postocular fossae and subacute labral lobes.

Notes. Reitter (1877) in his description noted that *E. (E.) hilleri* is very similar to *E. (E.) variegata* and compared the "new" species with the latter. This description is quite adequate, although infuscate elytral discs and darkened underside and antennal clubs are exceptions rather than characteristic features of the species under consideration. The type specimen of *E. (E.) hilleri* designated here as the lectotype corresponds well with the original description of the species as well as with description of *E. (E.) concurrens* and further comments to the latter (Sjöberg, 1939a; Audisio, 1993; Rutanen, 1993).

The range of *E. (E.) fageticola* [= *E. (E.) castanea* (Duftschmid, 1825), non C.R. Sahlberg, 1820 et non Melsheimer, 1846] (see above) overlaps with the reliable records on *E. (E.) hilleri*. Audisio mentioned that both "species" are distinct in aedeagal characters, but additional comparison of these structures in specimens from different localities does not support this opinion. The specimens from western and south western parts of the joint range (including Ul'yanovsk Prov. and Talysh) often can be distinguished from those from the most part of the range (westwards to Finland, Leningrad and Moscow provinces) by the somewhat larger body and some other characters which can be interpreted as subspecific, but small specimens (especially females) from the western part can be scarcely separated from the specimens collected in the Asian part of the



Figs 13-32. 13-20, *Epuraea (Epuraea) hilleri* f. *hilleri*: 13, fore edge of head, dorsal; 14, pronotum of lectotype; 15, id. of specimen from Siberia; 16, ventral surface of head; 17, tegmen, ventral; 18, id., lateral; 19, 20, penis of different specimens from Siberia, dorsal; 21-23, *E. (E.) hilleri* f. *fageticola*: 21, pronotum; 22, tegmen of specimen from Talysh, ventral; 23, penis of the same specimen, dorsal; 24-27, *E. (Epuraeanella) durula*: 24, fore edge of head with labral lobes; 25, head, dorsal; 26, ventral surface of head; 27, elytron, lateral; 28-32, *Meligethes (Clypeogethes) kvaki*: 28, tegmen of specimen from Kopet-Dagh, ventral; 29, id. of specimen from Aksu-Dzhabagly Nature Reserve; 30-32, penis of different specimens, dorsal (30, from Kopet-Dagh; 31-32, from Sary-Chelek Nature Reserve). Scales: A – to Figs 14, 15, 21, 25, 27; B – to Figs 13, 16, 24, 26; C – to Figs 17-20, 22, 23, 28-32.

range. Therefore we distinguish two forms not giving them subspecific status.

Eपुरaea (Eपुरaea) hilleri f. hilleri Reitter, 1877
(Figs 13-20)

Pronotum subquadrangular, mostly narrowed forwards; its fore edge slightly emarginate and sides about as widely explanate as width of antennal scape. Elytra with moderately explanate sides (as widely explanate as width of flagellum of antennae). Postocular fossae somewhat less distinct, larger and shallower. Middle tibiae in males not or slightly dilated at apex.

Eastern part of Scandinavian Peninsula, eastern Europe (Leningrad and Moscow provinces), Siberia (Altai, Krasnoyarsk Terr.), Russian Far East (Khabarovsk and Primorsk Terr.) and Japan.

Eपुरaea (Eपुरaea) hilleri f. fageticola Audisio, 1991, stat. n.
(Figs 21-23)

Pronotum with arcuate sides, narrowed forwards and backwards; its fore edge deeply emarginate and sides much more widely explanate than width of antennal scape. Elytra with widely explanate sides (more widely explanate than width of flagellum of antennae). Postocular fossae somewhat more distinct, smaller and deeper. Middle tibiae in males usually dilated at apex.

Central Europe, including Denmark, Finland, Germany, Poland, Czech Republic, Slovakia, Austria, Italy, Slovenia, Croatia, Bosnia, Serbia, Hungary, Moldavia, Ukraine, Krasnodar Terr., Ul'yanovsk Prov., Azerbaijan, ? Vologda, ? Vladimir, ? Tambov and ? Volgograd provinces.

Eपुरaea (Eपुरaea) oblonga (Herbst, 1793)

Nitidula oblonga Herbst, 1793.

Eपुरaea oblonga: Erichson, 1843.

Eपुरaea parilis Reitter, 1873, 1884; Kirejtshuk, 1992 (synonymy).

Eपुरaea (Eपुरaea) danica Sjöberg, 1939a, **syn. n.**

Types examined. Lectotype (designated here) of *E. (E.) danica*, ♂, (ZMK). 1 paralectotype of *E. (E.) danica*, ♀ (ZIN), "N. Nov.", "K. A. Yakovlev" with pronotum subequally narrowed anteriorly and posteriorly.

Note. Up to the present only one specimen from the type series of *E. danica* (Denmark,

Nykøbing) was available for study; it is designated here as lectotype. Examination of this specimen shows that it is conspecific with specimens of the transpalaearctic *E. (E.) oblonga*. The recently discovered paralectotype is rather similar to normal specimens of *E. (E.) oblonga*, but with abnormal pronotal outline (see above).

Eपुरaea (Eपुरaeanelle) durula Reitter, 1894
(Figs 24-27)

Eपुरaea (Eपुरaea) durula Reitter, 1894 ("Westliches Ufer vom Baikal-See"); Reitter, 1919 ("Quellgebiet des Irkut"); Sjöberg, 1939a; Kirejtshuk, 1992 (Krasnoyarsk Terr., Irkutsk Prov., Primorsk Terr., Kuriles).

Eपुरaea (Eपुरaeanelle) sibirica J. Sahlberg, 1903 (East Siberia); Sjöberg, 1939a; Kirejtshuk, 1992 (synonymy).

Additional specimen. 1 ♀ (SMS), Khabarovsk Terr., "SE Baitsovo, 12 km NE Bikin, 26.V-4.VI.1990, 250-350 m, W. Schawaller".

Systematic position. This species was regarded as a member of the subgenus *Eपुरaea* s. str., but it has a combination of characters of the subgenus *Eपुरaeanelle*, including the strongly deepened postocular fossae and very characteristic aedeagus (especially characteristic of the Indo-Malayan species: see figures in Kirejtshuk, 1992). However, in contrast to most members of the subgenus *Eपुरaeanelle*, *E. durula* has slightly emarginate hind edge of metasternum between coxae, as in most species of *Eपुरaea* s. str. (but also in *E. (Eपुरaeanelle) amurensis* Kirejtshuk, 1992), and that was a reason for misinterpretation (Reitter, 1894, 1919; Kirejtshuk, 1992).

Genus Amphicrossus Erichson, 1843

Amphicrossus Erichson, 1843. Type species: *Nitidula ciliata* Olivier, 1811, designated by Parsons, 1943.

Cametis Motschulsky, 1863, **syn. n.** Type species: *Cametis picea* Motschulsky, 1863, by monotypy.

Lobostoma Fairmaire, 1892. Type species: *Lobostoma picea* Fairmaire, 1892, by monotypy.

Rhacostoma Berg, 1898, nom. n. pro *Lobostoma* Fairmaire, 1892, non Gundlach 1840.

Nitidopecten Reichensperger, 1913, **syn. n.** Type species: *Nitidopecten comes* Reichenberger, 1913, by monotypy.

Note. The new synonymy is based on examination of type specimens of *Cametis picea* and *Nitidopecten comes* (see below).

Amphicrossus piceus Motschulsky, 1863, comb. n.

Cametis picea Motschulsky, 1863.

Lectotype (designated here): ♀ (ZMU) from the V. Motschulsky's collection, "Ind. or."

Examination of the type specimen of *Cametis picea* Motschulsky, 1863 allows to clarify that this species belongs to the genus *Amphicrossus*.

Amphicrossus parallelus Grouvelle, 1912

Amphicrossus parallelus Grouvelle, 1912.

Nitidopecten comes Reichensperger, 1913, **syn. n.**

Lectotype of *A. parallelus* Grouvelle (designated here): ♂ (MRAC), "Région de Sassa, 1895-96, Colmant", with unpublished lectotype label by Endrödy-Younga.

Lectotype of *N. comes* (designated here): ♂ (MAK), "Dire Doana Abessin., ♀, III.12, Kristensen", "coll. Reichensperger", "b. *Acantholep. capensis canescens* A.R.", "*Nitidopecten comes*, ♀, n. g., n. sp.).

The above lectotypes are conspecific.

Amphicrossus accidentus nom. n.

Lohostoma picea Fairmaire, 1892, non *Cametis picea* Motschulsky, 1863.

Amphicrossus piceus: Grouvelle, 1908, 1913.

The new name is given as a consequence of the new combination established above.

Meligethes (Clypeogethes) aeneus (Fabricius, 1775)

Nitidula aenea Fabricius, 1775.

Meligethes gracilis Brisout, 1863, **syn. n.**

Meligethes boops Easton, 1957, **syn. n.**

Types examined. Holotype of *M. boops*, ♂ (NHL).

The true "*M. (C.) gracilis*" are scarcely different from small and not quite mature specimens of the true "*M. (C.) aeneus*", even aedeagal features give no distinction character. Examination by the author of the holotype of *M. (C.) boops* shows that this specimen looking like small *M. (C.) anthracinus* C. Brisout, 1863 or *M. (C.) longulus* Schilsky, 1894 (but with greenish lustre on elytra) should be considered as conspecific with *M. (C.) aeneus* and, probably, should be placed in the subspecies *M. (C.) aeneus dauricus* Motschulsky, 1849.

Species closely related to *Meligethes (Clypeogethes) ater* Brisout, 1863

The species considered are in the complex of closely related species of the *umbrosus*-group, which needs further study. Therefore all the forms of this complex are for now treated with the same rank. These species are associated with flowers of different species of the genus *Salvia* and distributed mostly in the Mediterranean part of the Palaearctic Region reaching the mountain systems of Middle Asia, Afganistan and Pakistan, but the members of this complex from the eastern part can be confused when identified after recent sources (Easton, 1957; Spornraft, 1967; Kirejtshuk, 1977, 1978; Jelínek & Spornraft, 1979; Audisio, 1993, etc.). In particular, a cause of confusion can be the descriptions of *M. (C.) kvaki* or *M. (C.) prius* and *M. (C.) perceptus* the type series of which include few specimens. The last name could be a junior synonym of the first or second name, or of *M. (C.) pharetra*. Some specimens from Uzbekistan [ZIN, "1500 m, vost. sklon Kushtangtau ... 26.04.1984, Vereshchagina"] remain unnamed because they share most characters with European specimens of *M. (C.) ater*, but with elytra slightly longer than their combined width, lack of sexual characters on metasternum and hypopygidium and genitalia of both sexes as those in *M. (C.) pharetra*.

These species are distinguished from other species of the *umbrosus*-group from the western part of the Palaearctic Region by their transversely subtruncate elytral apices, marginal caudal lines closely following hind edge of hind coxal cavities, secondary sexual characters and male genitalia with simple excision between lateral lobes of tegmen. Among the species mentioned below, *M. (C.) kvaki* has denser but rather fine dorsal punctation, but dorsum of *M. (C.) holzschuhi* is with comparatively sparser and coarser punctures, and with smoothly reticulated interspaces. Characters distinguishing these species are given below.

Meligethes (Clypeogethes) ater Brisout, 1863

Meligethes ater Brisout, 1863.

Diagnosis. (1) Body rather robust and of medium size (2.0-3.2 mm), with elytra more arcuate at sides and markedly shorter than their width combined, with pronotum widest

at the middle. (2) Dorsal pubescence reddish golden, moderately conspicuous. (3) Fore tarsi of male 4/5 as wide as fore tibiae. (4) Metasternum of male slightly and broadly depressed in the middle. (5) Hypopygidium of male with a very small transverse shining tubercle at the middle of hind edge. (6) Aedeagus with very small and frequently abrupt isolated apical capitulum (see Spornraft, 1967; Kirejtshuk, 1977; Jelínek & Spornraft, 1979; Audisio, 1993). (7) Ovipositor moderately long and moderately wide, with central spicule lacking and styli apart from apex of ovipositor by their length (see Jelínek & Spornraft, 1979; Audisio, 1993).

Distribution. South eastern France, central Germany, Poland, Moravia, Slovakia, Austria, Italy, Yugoslavia, Albania, Hungary, Romania, Bulgaria, Greece, Turkey, Moldavia, Ukraine, Krasnodar Terr., Daghestan, Georgia, Armenia, Azerbaijan. Citation from Transcasian region and mountains of Middle Asia (Audisio, 1993) is rather questionable.

Meligethes (Clypeogethes) holzschuhi Jelínek & Spornraft, 1979

Meligethes holzschuhi Jelínek & Spornraft, 1979.

Diagnosis. (1) Body robust and comparatively large (2.7-3.5 mm), with elytra more arcuate at sides and markedly shorter than their width combined, with pronotum widest at base. (2) Dorsal pubescence reddish grey, slightly conspicuous. (3) Fore tarsi of male nearly as wide as fore tibiae. (4) Metasternum of male slightly depressed in the middle. (5) Hypopygidium of male with two paramedial tubercles before hind edge. (6) Aedeagus with lateral lobes of tegmen set strongly apart and very wide apical capitulum of penis trunk (see Jelínek & Spornraft, 1979; Audisio, 1993). (7) Ovipositor moderately long and narrow, with lacking central spicule and subapical styli (see Jelínek & Spornraft, 1979; Audisio, 1993).

Distribution. Turkey.

Meligethes (Clypeogethes) jordanis Jelínek & Spornraft, 1979

Meligethes jordanis Jelínek & Spornraft, 1979.

Diagnosis. (1) Body robust and comparatively large (2.3-3.1 mm), with elytra more arcuate at sides and markedly shorter than

their width combined, with pronotum widest at base. (2) Dorsal pubescence reddish grey, moderately conspicuous. (3) Fore tarsi of male nearly 3/5 as wide as fore tibiae. (4) Metasternum of male moderately triangularly depressed, with a pair of very small paramedial tubercles (not smooth) before the middle. (5) Hypopygidium of male with a shining tubercle before the middle of hind edge. (6) Aedeagus with comparatively long penis trunk ending in moderately wide apical capitulum (see Jelínek & Spornraft, 1979; Audisio, 1993). (7) Ovipositor very long and narrow, with central spicule lacking and styli apart from apex of ovipositor at somewhat less than their length (see Audisio, 1993).

Distribution. Turkey, Syria, Lebanon, Jordan, Israel. Occurrence in Caucasus and Crimea (Audisio, 1993) is doubtful and should be confirmed.

Meligethes (Clypeogethes) kvaki Kirejtshuk, 1977, stat. n.
(Figs 28-32)

Meligethes pharetra kvaki Kirejtshuk, 1977 (Tadjikistan); Kirejtshuk, 1978.

Material examined (additional to the types, all in ZIN). **Turkmenistan:** 2 ♂, West Kopet-Dagh, near Karakala, 10.IV.1991, V.N. Prasolov; 1 ♀, Kopet-Dagh, Chuli, 28.IV.1971, E. Gur'jeva; **Kazakhstan:** many specimens, Aksu-Dgabayly Nature Reserve, 2300 m, 15.VII.1983, Ishkov; **Kirghizia:** many specimens, Sary-Chelek Nature Reserve, VI.1979, A.G. Kirejtshuk; 7 ♂ and ♀, Bozbutau, 2000 m, I.V.1961, V. Zaslavsky.

Diagnosis. (1) Body slender and comparatively small (2.0-2.5 mm), with elytra subparallel-sided and distinctly (about 1.11 times) longer than their width combined; pronotum widest at the middle, with subparallel sides in basal half. (2) Dorsal pubescence greyish to ochraceous, rather conspicuous. (3) Fore tarsi of male 3/5 as wide as fore tibiae. (4) Metasternum of male very slightly depressed, with a pair of small paramedial tubercles (not quite smooth and sometimes elongated) before the middle. (5) Hypopygidium of male with a small, shining, smooth, more or less transverse tubercle before the middle of hind edge. (6) Aedeagus with moderately long penis trunk ending in medium-wide apical capitulum, frequently not quite isolated. (7) Ovipositor moderately long and moderately wide, with raised central spicule and styli apart from apex of ovipositor at somewhat less than their length (see Kirejtshuk, 1977).

Distribution. Turkmenistan, Tadjikistan, Kirghizia, Kazakhstan.

Meligethes (Clypeogethes) pharetra Easton, 1957

Diagnosis. (1) Body slender and small or of medium size (2.4-3.2 mm); elytra with arcuate sides and not or slightly longer than their width combined; pronotum widest at middle and with subparallel sides in the basal half. (2) Dorsal pubescence grey yellowish to brown, moderately conspicuous. (3) Fore tarsi of male as in *M. (C.) kvaki*. (4) Metasternum of male very slightly or scarcely depressed, with a pair of rather raised, smooth, elongate paramedial tubercles before the middle. (5) Hypopygidium of male with a shining, smooth, distinctly elongate tubercle before the middle of hind edge. (6) Aedeagus as in *M. (C.) kvaki*, but with apical capitulum of penis trunk distinctly isolated (see Easton, 1957; Jelínek & Spornraft, 1979; Audisio, 1993). (7) Ovipositor very short and wide, without central spicule and with subapical styli (see Easton, 1957; Jelínek & Spornraft, 1979).

Distribution. Afganistan, Himalayan part of Pakistan (Kirejtshuk, in preparation).

Meligethes (Clypeogethes) privus Kirejtshuk, 1977

Meligethes privus Kirejtshuk, 1977; Kirejtshuk, 1978 (Tadjikistan).

Diagnosis. (1) Body moderately robust and comparatively small (2.4-2.6 mm); elytra with arcuate sides and nearly as long as their width combined; pronotum widest at middle and with subparallel sides in the basal half. (2) Dorsal pubescence reddish to brownish, moderately conspicuous. (3) Fore tarsi of male half as wide as fore tibiae. (4) Metasternum of male as in *M. (C.) jordanis*. (5) Hypopygidium of male as in *M. (C.) kvaki*. (6) Aedeagus as in *M. (C.) ater*, but with clearly arrow-like and small, isolated apical capitulum (see Kirejtshuk, 1978). (7) Ovipositor especially long and narrow, with central spicule lacking and styli apart from apex of ovipositor at much more than their length (see Kirejtshuk, 1977).

Distribution. Tadjikistan.

Meligethes (Clypeogethes) perceptus Jelínek & Spornraft, 1979

Meligethes perceptus Jelínek & Spornraft, 1979 (NW Iran).

Note. This species is known to the author only from its original description (see Jelínek & Spornraft, 1979). The characters given in it allows us to suppose synonymy with *M. (C.) kvaki* or *M. (C.) privus*, although reexamination of the type specimens of *M. (C.) perceptus* is needed.

Meligethes (Clypeogethes) diversus Schilsky, 1893

(Figs 11-12)

Meligethes rosenhaueri var. *diversus* Schilsky, 1893 ("Kaukasus").

Meligethes diversus: Easton, 1964 (syntype, ♀, TMB, "Araxesthal").

Meligethes (Clypeogethes) diversus: Kirejtshuk, 1992.

Material examined. Lectotype (designated here) of *M. diversus*, ♂ (MHB), "Kaukasus, Araxesthal, Leder"; 1 paralectotype, ♀ (ZIN), "Kaukasus, Leder"; 1 paralectotype, ♀ (MHB), "Abastuman"; additional specimens: 1 ♀ (ZIN), Armenia, "Erevan, Parakar, 7-6-51" (in Cyrillic letters); 1 ♀ (ZIN), Georgia, Vashlovan Nature Reserve, steppe slope, 23.V.1977, A. Kirejtshuk; and also the type series of *M. (C.) tschistyakovae* (ZIN) and *M. (C.) yakuschenkoi* (ZIN); additional specimen: 1 ♀ (ZIN), Russia, South Urals, Ilmen Nature Reserve, 25.VI.1983, A.V. Lagunov.

Notes. This species is rather rare in collections and quite variable (Kirejtshuk, 1990, 1992). The transcaucasian specimens are larger and males with penis more widened in the middle and with membranous lateral processes in contrast to the specimens from Ilmen Mountains (with highest elevation 748 m) of the South Urals, Kazakhstan (*M. (C.) tschistyakovae*) and Altai (*M. (C.) yakuschenkoi*). These differences are here treated as subspecific. Audisio (1993) included Iranian Kurdistan and Kazakhstan in the range of this species ("anatolico-caucasico-centrasiatica"). As to the mention of Middle Asia, this species can be expected only in mountains of Kopet-Dagh, but scarcely in desert territories.

Meligethes (Clypeogethes) diversus diversus Schilsky, 1893

The subspecies is distributed in Transcaucasia (Georgia, Turkey, Armenia, Azerbaijan) and is geographically isolated from the second subspecies discussed below.

Meligethes (Clypeogethes) diversus tschistyakovae Kirejtshuk, 1990, stat. n.

Meligethes (Clypeogethes) tschistyakovae Kirejtshuk, 1990 (north eastern Kazakhstan).

Meligethes (Clypeogethes) yakushenkoi Kirejtshuk, 1992 (Altai Terr.), **syn. n.**

This subspecies is recorded from the steppe zone of Russia and Kazakhstan.

***Meligethes (Clypeogethes) elongatus* Rosenhauer, 1856**

Meligethes elongatus Rosenhauer, 1856 (Spain); Audisio, 1993 (Iberian Peninsula, North Africa, Pantelleria Island).

Meligethes mithra Jelínek, 1978a (Israel, Jordan), **syn. n.**
Meligethes verrucicollis Jelínek, 1978a (Israel), **syn. n.**

Material examined. More than 100 specimens (NHL, NMW, SNS, ZIN, ZML) from Spain, Marocco, Tunis, Jordan (Ez-Zarga), Israel (1 ♂, NHL, "Palestine, Mikve Israel, 1931, F.S. Bodenheimer").

Note. The published differences between these forms mostly include variable punctuation on dorsum and slightly different outline of genital sclerites manifesting some variability in large series. Therefore there is no reason to split this variable and almost circummediterranean species into several species or subspecies.

***Meligethes (Clypeogethes) simplex* Kraatz, 1858**

Meligethes simplex Kraatz, 1858 (southern Greece).
Meligethes bithynicus Audisio, 1988 (northern Turkey), **syn. n.**

Material examined: holotype of *M. (C.) simplex*, ♀ (DEI), "simplex, m. Athen, v. Kr."; about 20 additional specimens (NHL, NMW, SMS, ZIN) from Greece and one paratype of *M. (C.) bithynicus* (ZIN).

Note. Differences between these forms were mainly traced in aedeagal structures, namely in length of tegmen and depth of its median excision showing certain variability. The Greek and Turkish populations are separated by the geographic barrier presented by Aegean Sea and Sea of Marmara. Probably, somewhat lighter appendages and longer tegmen of the Turkish specimens in comparison with those from Greece could be interpreted as subspecific differences (but the problem needs a further study).

***Meligethes (Clypeogethes) subaeneus* Sturm, 1845**

Meligethes subaeneus Sturm, 1845 (SE Germany).
Meligethes matronalis Audisio & Spornraft, 1990 (Italy), **syn. n.**

The forms regarded as *subaeneus* and *matronalis* (Audisio & Spornraft, 1990) are scarcely distinguishable in their structures showing certain variability among specimens of large series from different parts of Southern Europe examined by the author in many collections, but the difference in host plants cannot give enough ground to divide them into two separate species, although the ranges of variability are slightly depend on ecological conditions.

Genus **Physoronia** Reitter, 1884

The species here united in this genus were hitherto placed in different genera. They can be divided into 3 groups, for each of which were proposed 1 or 2 names; these groups are treated by the author as subgenera.

Subgenus **Physoronia** Reitter, 1884, s. str.

Oso tina Rebmann, 1944 (Kirejtshuk, 1992: synonymy).

Diagnosis. (1) Pronotum with a pair of depressions on disc before scutellum, widely explanate sides and slightly narrowed to base; basal edge distinctly bordered at scutellum. (2) Dorsum covered with conspicuous subrecumbent pubescence of 2 kinds of hairs: short and moderately long hairs; long hairs arranged in longitudinal rows and partly gathered into small suberected groups dispersed on elytra. (3) Tibiae narrow and simple; fore tibiae slightly arcuate with angular subapical corner, middle and hind tibiae with almost straight inner and outer edges. (4) Antennal grooves slightly divergent and scarcely arched behind mentum. (5) Prosternum without median isolated plate, its process rather curved along coxae, extended as a pleat and adpressed to surface of mesosternum. (6) Mesosternum slightly convex along the middle. (7) Distance between fore coxae smaller, and that between hind coxae about 1.5 times greater than that between middle coxae. (8) Caudal marginal line behind hind coxal cavity follows closely to its hind edge. (9) Epipleura wide (more than twice as wide as antennal club) and nearly horizontal.

Included species: *P. (P.) explanata* Reitter, 1884 (= *Oso tina klapperichi* Rebmann, 1944) (type species).

Subgenus **Lordiodes** Reitter, 1884, stat. n.

Diagnosis. (1) Pronotum subflattened and widest at base, with subexplanate sides and

without any trace of border at scutellum. (2) Dorsal pubescence moderately conspicuous, of 2 kinds: subrecumbent and moderately long hairs; suberect, very long and thin hairs, forming rather regular longitudinal rows on elytra. (3) Tibiae strongly dilated and flattened (especially fore ones); fore tibiae with rather arcuate outer edge and rounded subapical corner, middle and hind tibiae with strongly rounded inner and concave outer edges. (4) Antennal grooves distinct, slightly and rectilinearly convergent behind mentum. (5) Prosternum with isolated median plate, its process rather wide, concave, short and vertically abrupt at apex. (6) Mesosternum sharply carinate. (7) Distance between fore coxae subequal to, and that between middle coxae about by a fourth smaller than that between hind coxae. (8) Caudal marginal line behind hind coxal cavity slightly arcuately deviating in the inner half of hind end of cavity. (9) Epipleura moderately wide (less than twice as wide as antennal club) and slightly elevated to lateral edges.

Included species: *P. (L.) latipes* Reitter, 1884 (type species), comb. n.; *P. (L.) dentipes* Jelínek, 1978b, comb. n. (*Lordirodes*).

Subgenus **Pocadioides** Ganglbauer, 1899, stat. n.

Diagnosis. (1) Pronotum almost evenly convex on disc and with narrowly subexplanate sides, widest at base, basal border rather distinct at scutellum. (2) Dorsum covered with moderately or rather fine and fairly conspicuous pubescence of 2 kinds: recumbent or subrecumbent, short and moderately long hairs; subrecumbent, long hairs arranged in longitudinal rows on elytra. (3) Tibiae narrow and simple; fore tibiae slightly flattened, with slightly arcuate outer edge and distinctly angular or subangular subapical corner; middle and hind tibiae with almost straight inner and outer edges. (4) Antennal grooves more or less convergent, almost straight or scarcely arched behind mentum. (5) Prosternum without or with slightly raised median plate, its process short and vertically abrupt at apex. (6) Mesosternum gently convex along the middle. (7) Distance between fore coxae slightly smaller, and that between hind coxae somewhat greater than that between middle coxae. (8) Caudal marginal line behind hind coxal cavity follows closely to its hind edge or slightly and widely deviates from it in inner half. (9) Epipleura

moderately wide (less than twice as wide as antennal club) and slightly elevated to lateral edges.

Included species: *P. (P.) wajdelota* (Wankowicz, 1869) (type species), comb. n. (*Pocadius*); *P. (P.) japonicus* (Reitter, 1873), *P. (P.) harmandi* (Grouvelle, 1903), comb. n. (*Pocadius*); *P. (P.) affinis* (Kirejtshuk, 1984), comb. n. (*Lordirodes*).

Physoronia (Pocadioides) wajdelota (Wankowicz, 1869), comb. n.

Pocadius wajdelota Wankowicz, 1869 (Byelarusia, not Lithuania!).

Pocadioides wajdelota: Ganglbauer, 1899 (Croatia, Austria); Jelínek, 1960 (also Switzerland, Poland, Slovakia, Ukraine).

Lordirodes wajdelota: Audisio, 1993 (also southern Germany).

This species is vicariant with *L. (P.) japonicus* (Reitter, 1873) from the Palaearctic Far East (see Kirejtshuk, 1992). The species are closely similar (including genital structures in both sexes) and have the same habits (mostly association with fruit-bodies of fungi of the family Lycoperdaceae).

Physoronia (Pocadioides) japonicus (Reitter, 1873)

Pocadius japonicus Reitter, 1873 (Japan).

Pocadius rufimargo Reitter, 1884 (Japan), **syn. n.**

Pocadius unicolor Reitter, 1884 (Japan), **syn. n.**

Physoronia japonicus: Kirejtshuk, 1992 (also Khabarovsk Terr., Primorsk Terr., Sakhalin, Kuriles, Korea).

Physoronia unicolor: Kirejtshuk, 1992 (provisional synonymy).

Types examined. 1 syntype (NHL) of *P. japonicus*, without label; 1 syntype (NHL) of *P. rufimargo* ("Sado"); 1 syntype (NHL) of *P. unicolor* ("Sado").

Note. All syntypes mentioned above without doubt belong to the same species with a wide range through the Palaearctic Far East (Kirejtshuk, 1992).

Genus **Cryptarcha** Shuckard, 1839

Cryptarcha Shuckard, 1839. Type species *Nitidula strigata* Fabricius, 1787 (designated by Parsons, 1943) (complete synonymy in Kirejtshuk, 1981).

Africanips Lechanteur, 1959, **syn. n.** Type species *Africanips niger* Lechanteur, 1959 (by monotypy).

Note. *Africanips* Lechanteur, 1959 was described as a genus, then synonymized with the subgenus *Librodor* Reitter, 1884 of the

genus *Glischrochilus* Reitter, 1973 (Kirejtshuk, 1981), but the species formerly placed in *Africanips* should be indeed approached to the *senegalensis*-group of the genus *Cryptarcha* having resemblance to the species of this group in external and genital characters (except more slender body in *C. lechanteuri* and *C. kuntzeni*).

***Cryptarcha lechanteuri* nom. n.**

Africanips niger Lechanteur, 1959, non *Cryptarcha nigra* Sharp, 1891.

Glischrochilus (Librodor) niger: Kirejtshuk, 1981.

Because of taxonomic changes mentioned in the previous note the name *C. lechanteuri* nom. n. is proposed.

***Cryptarcha kuntzeni* (Kirejtshuk, 1981), comb. n.**

Glischrochilus (Africanips) kuntzeni Kirejtshuk, 1981.

This combination is proposed because of taxonomic changes mentioned above.

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