

A taxonomic review of *Hemiaulax*, *Idiomelas* and *Egaploa* with description of two new species of *Stenolophus* from South East Asia (Coleoptera: Carabidae)

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Kataev, B.M. 1997. A taxonomic review of *Hemiaulax*, *Idiomelas* and *Egaploa* with description of two new species of *Stenolophus* from South East Asia (Coleoptera: Carabidae). *Zoosystematica Rossica*, 6(1/2): 237-254.

Distinguishing features of *Hemiaulax* Bates (1 species), *Idiomelas* Tschitsch. (2 species) and *Egaploa* Alluaud (2 species) are given. *Idiomelas* is treated as a separate genus different from *Hemiaulax*, and *Egaploa* as a subgenus of *Idiomelas*. *Hemiaulax dentipennis* Bates and 4 species of the genus *Idiomelas* are redescribed, 1. (*Egaploa*) *fulvipes indus* ssp. n. from Nepal and India is described, and a key to species of the genus *Idiomelas* is provided. Some aspects of phylogeny of *Idiomelas* are discussed. In addition, *Stenolophus* (*Astenolophus*) *rufobdominalis* sp. n. from China (Yunnan) and North Vietnam and *S. (Egadroma)* *mjohergi* sp. n. from Indonesia (Sumatra) and Thailand are described.

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The paper chiefly deals with three small groups of the carabid subtribe Stenolophina: the Oriental *Hemiaulax* Bates, the Palaearctic *Idiomelas* Tschitsch., and the mainly Ethiopian *Egaploa* Alluaud. Each of these groups contains only 1 or 2 closely related and often confused species which, except for *Hemiaulax dentipennis* Bates, are widespread and rather common in lowland wet habitats. All these groups have hitherto been studied separately, and the present paper is the first attempt to give their comparative characteristics. In addition, two new species of the genus *Stenolophus* Stephens are described from South East Asia.

The paper is based on material housed in the following museums and private collections, as indicated below: IZB – Institute of Zoology, Academia Sinica, Beijing, China; MSNG – Museo Civico di Storia Naturale, Genova, Italy; MPU – Moscow Pedagogical University, Moscow, Russia; MHNP – Museum National d'Histoire Naturelle, Paris, France; MNHB – Museum für Naturkunde an der Humboldt-Universität, Berlin, Germany; MZUL – Museum of Zoology, Lund University, Lund, Sweden; SMNHS – Swedish Museum of Natural History, Stockholm, Sweden; TTMB – Természettudományi Mu-

zeum, Budapest, Hungary; ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia (omitted in the text, because it represents the bulk); ZMUC – Zoological Museum, University of Copenhagen, Denmark; cITO – Coll. N. Ito, Kawanishi City, Japan; cKAB – Coll. O.N. Kabakov, St. Petersburg, Russia; cSOC – Coll. I.A. Sokolov, St. Petersburg; cSCHM – Coll. J. Schmidt, Rostock, Germany.

The measurements have been taken according to our previous publications (e.g. Kataev, 1993).

Genus *Hemiaulax* Bates, 1892

Hemiaulax Bates, 1892: 347.

Type species *Anoplogenus (Hemiaulax) dentipennis* Bates, by monotypy.

Description. Upperside glabrous. Clypeo-ocular line sharp and reaching the eye. Mentum (Fig. 1) edentate, fused laterally with submentum, the latter bearing two pairs of lateral setigerous pores. Ligular sclerite rather narrow, notably widened anteriorly, its anterior margin almost straight. Paraglossae rather narrow, truncate at tip, separated from ligular sclerite by a deep notch.

Penultimate labial palpomere with two setae at anterior margin and one seta ventrally near apex (apical seta, according to Habu, 1973). Antennae long and slender, pubescent from 3rd segment on. Bead along anterior margin of pronotum complete, not interrupted medially (Fig. 2). Subapical sinuation of elytra very deep in both sexes, with a sharp tooth at its base (Fig. 4). Scutellar stria present, long. Posterior series of marginal elytral punctures divided into two groups of four punctures each. 3rd elytral interval in apical third with 1 discal pore near 2nd stria. Median parts of prosternum, metasternum, abdominal sternites (2-3 last sternites almost throughout), metacoxae, and mesocoxae ventrally with long inclined hairs. Apical abdominal sternite with a pair of setigerous pores in both sexes. Anterior tibia with 1-2 apical spines on outer margin. Hind margin of hind femora with two setigerous pores. Meta- and mesotarsi with distinct lateral furrow on each side. 5th tarsomere without setae underneath. 4th tarsomere of protarsi (in male also of mesotarsi) bilobed, with very long and narrow lobes (Fig. 3). Female genitalia with a slightly arcuate apical stylomere bearing several spines at outer margin (Fig. 7).

Distribution. Burma.

Composition. The genus contains a single species, *H. dentipennis* Bates, 1892.

Remarks. The genus *Hemiaulax* is most closely related to the genus *Loxoncus* Schm.-Goeb. (= *Anoplogenus* Chaud.) of which it was originally described as a subgenus. *Hemiaulax* and *Loxoncus* share the following distinctive features: mentum and submentum fused at least laterally (Figs 1, 8; in some *Loxoncus* they are fused completely), bead along anterior margin of pronotum not interrupted medially, meta- and mesotarsomeres carinate externally, 5th tarsomere without setae underneath, 4th protarsomere bilobed (Figs 3, 9), and apical stylomere at least with several spines at outer margin (Figs 7, 11; in other *Stenolophina* with one spine). In *Loxoncus*, however, elytra without scutellar stria and with a very weak subapical sinuation (Fig. 10), ventral surface of body glabrous (only with obligatory setae), apical stylomere well hooked at apex and with a greater number of spines at outer margin (Fig. 11).

Based on these differences, we consider *Hemiaulax* and *Loxoncus* as separate genera. Despite their strong habitus resemblance with the genus *Stenolophus* Steph., they seem

to form a discrete monophyletic unit separated from *Stenolophus* and other genera of *Stenolophina* by the peculiar structure (clearly apomorphic) of the female genitalia supplied with numerous spines at the outer margin of the apical stylomere and by the labium with both mentum and submentum fused at least laterally.

The treatment by many authors of *Idiomelas* Tschit. as a synonym of *Hemiaulax* is, in our opinion, erroneous (see below).

***Hemiaulax dentipennis* (Bates, 1892)**

(Figs 1-7)

Anoplogenus (Hemiaulax) dentipennis Bates, 1892: 347.

Type material examined. Lectotype (designated here), male with labels: "Palon (Pegu), L. Fea, VIII. IX. 87", "Typus", "*Anoplogenus (Hemiaulax) dentipennis* Bates" [Bates handwriting], "*Anoplog. (Hemiaulax) dentipennis* Bates (es. tip.)", "*dentipennis* Bates", "syntypus, *Anoplogenus (Hemiaulax) dentipennis* Bates, 1892" (MSNG), and "Museo Civico di Genova"; and 2 paralectotypes (♂ and ♀) with geographical labels as in lectotype (MSNG).

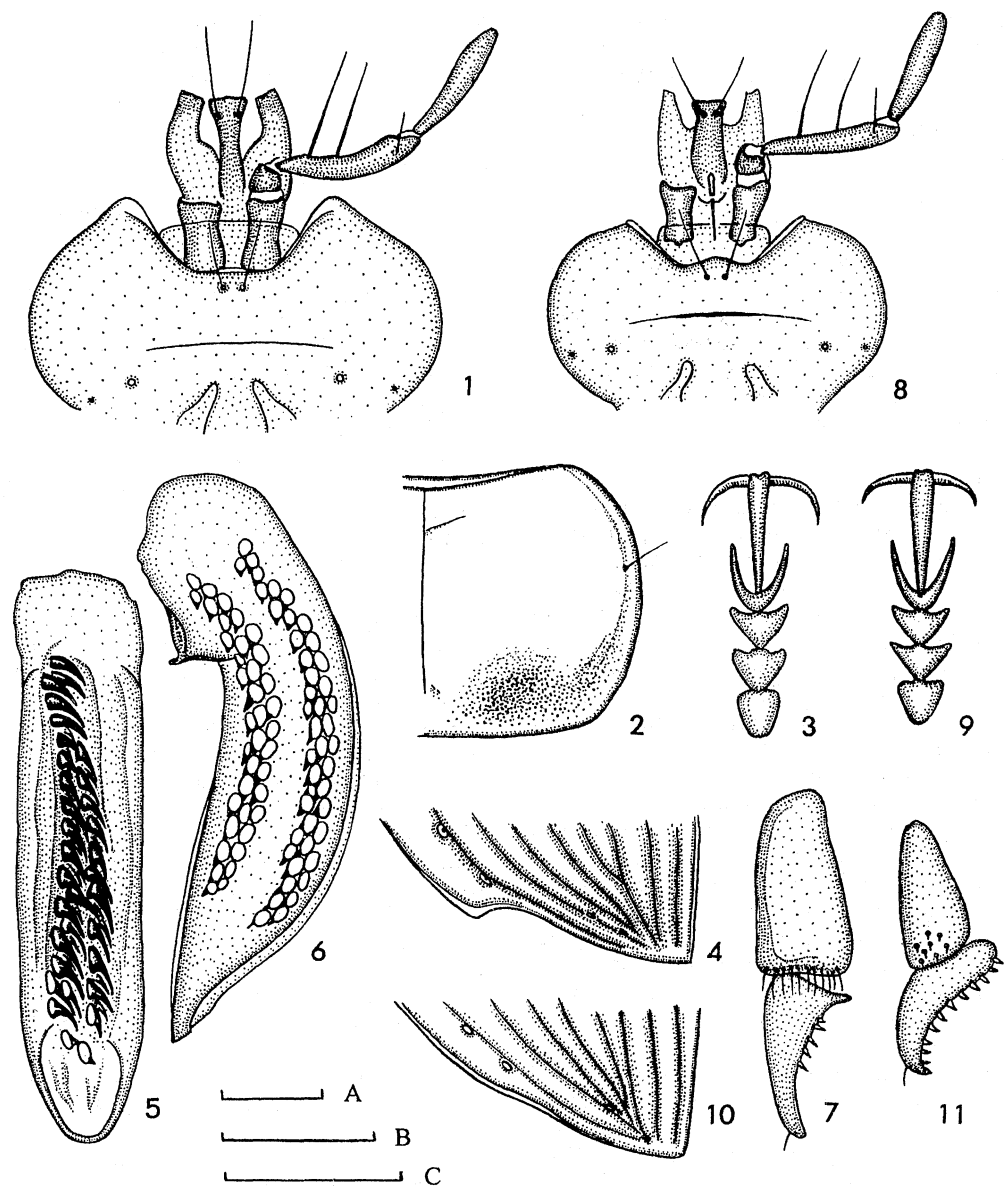
Description. Body length 9.5-10.6 mm, width 3.9-4.3 mm.

Dark brown, shining, strongly iridescent; lateral margins of pronotum and elytra (along marginal furrow), palpi, antennae, and legs brownish yellow.

Head 0.72-0.75 times as wide as pronotum, with large hemispherical eyes. Antennae rather long and slender, extending approximately to one-quarter of elytra, pubescent from 3rd segment on.

Pronotum (Fig. 2) transverse, 1.51-1.52 times wider than long, rounded on sides, widest in the middle or just before it, equally narrowed anteriorly and posteriorly. Anterior margin of pronotum weakly concave; anterior angles not protruding, obtuse and rounded at tip; hind margin straight medially, slightly oblique laterally; hind angles obtuse, broadly rounded at tip. Dorsal pronotal surface moderately convex, with rather wide lateral flattened areas slightly widened toward base and fused there with deep oval basal foveae; the latter finely punctate and separated from each other by a smooth convexity; fine punctation present along lateral margins.

Elytra rather long, 1.56-1.60 times longer than wide and 3.24-3.33 as long as pronotum, sides very weakly rounded, widest behind the middle; sutural angle acute; humeri broadly rounded. Elytral striae impunctate, impressed; intervals slightly convex.



Figs 1-11. 1-7, *Hemiaulax dentipennis* (lectotype); 8-11, *Loxoncus procerus*. 1, 8, labium; 2, right part of pronotum; 3, 9, left protarsus; 4, 10, apex of left elytron; 5, penis, dorsal aspect; 6, penis, view from left side; 7, 11, stylus. Scales: A = 0.5 mm (Figs 3-6, 9, 10); B = 1.0 mm (Fig 2); C = 0.5 mm (Figs 1, 7, 8, 11).

Microsculpture on head and lateral intervals of elytra consisting of very fine isodiametric meshes; on pronotum and elytra medially the meshes obsolete.

Metepisterna strongly narrowed posteriorly, rather long, their length along inner margin much greater than width along anterior margin. Wings fully developed. Legs

comparatively long and slender. Tarsi glabrous dorsally. First four segments of fore and middle tarsi in male dilated and carrying two rows of scale-like adhesive hairs underneath.

Penis (Figs 5, 6) symmetric, stout, weakly curved, with a large basal bulb and a very wide, short apical portion rounded at tip.

Apical opening in dorsal position. Internal sac with two parallel rows of numerous medium-sized teeth.

Distribution. Known only from Burma.

Genus **Idiomelas** Tschitschérine, 1900, stat. rest.

Idiomelas Tschitschérine, 1900: 364.

Type species *Stenolophus morio* Ménétriés, by original designation.

Description. Upperside glabrous. Clypeo-ocular line distinct and reaching the eye. Antennae with rather short segments pubescent from 3rd one on. Mentum (Figs 21, 24) edentate, fully separated from submentum, the latter bearing a pair of lateral setigerous pores. Ligular sclerite comparatively broad, widened anteriorly, its anterior margin angulate. Paraglossae rounded at tip, separated from ligular sclerite by a more or less deep notch. Penultimate labial palpomere with two setae at anterior margin and one seta ventrally near apex. Bead along anterior margin of pronotum either complete or interrupted medially (Figs 12, 14-16, 18, 19). Subapical sinuation of elytra rather deep in both sexes, with a blunt tooth at its base, sometimes rounded at tip (Figs 22, 25). Scutellar stria present (sometimes rudimentary). Posterior series of marginal elytral punctures divided into two groups of four punctures each; 3rd interval in apical quarter with one discal pore near 2nd stria. Metepisterna narrow and long. Wings fully developed. Ventral surface of body, except for obligatory setae, glabrous (but prosternum anteriorly and laterally and median part of 2nd-3rd abdominal sternites with very fine and short pubescence). Apical abdominal sternite with 1-2 pairs of setigerous pores in male and 2 pairs in female. Anterior tibia with 2-3 apical spines at outer margin. Hind margin of hind femora with two setigerous pores. Metatarsi (in female sometimes also mesotarsi) with more or less distinct lateral furrow on each side. 5th tarsomere with 1-3 pairs of setae underneath. 4th protarsomere (in male also 4th mesotarsomere) bilobed (Fig 13, 17). Female genitalia with apical stylomere bearing one large spine at outer margin (Fig. 23).

Composition. The genus includes two subgenera, the nominotypical one and *Egaploa* Alluaud, with two species each.

Distribution. Palearctic, Ethiopian (including Madagascar) and Oriental regions.

Remarks. The genus *Idiomelas* was erected for the Palearctic *Stenolophus morio* as a taxon similar to the genus *Hemiaulax* but differing mainly in the lateral margins of the pronotum not flattened. Schaubberger (1930a), who had apparently never seen the specimens of *Hemiaulax dentipennis* Bates, incorrectly united *Hemiaulax* with *Idiomelas* on the basis of the deep subapical sinuation of the elytra shared by both taxa concerned. All subsequent authors accepted his interpretation uncritically, although in fact both taxa must be treated as separate, because *Idiomelas* is distinguished from *Hemiaulax* by many significant characters, first of all the glabrous ventral surface of the body, the female genitalia with the less strongly arcuate apical stylomere carrying only one spine at the outer margin, and the labium with the mentum fully separated from the submentum.

In his work on the supra-specific taxa of the tribe Harpalini, Noonan (1976) treated *Hemiaulax* (= *Idiomelas*, according to Noonan) as a subgenus of *Acupalpus* Latr. Unfortunately, Noonan did not provide any reason for such a treatment. We suppose that he incorrectly accepted the classifications of Schaubberger (1930a, 1930b) and Csiki (1932) who both treated *Acupalpus* in a very broad sense and included also *Stenolophus*, *Hemiaulax* (= *Idiomelas*) and some other allied taxa in it. Most modern authors treat *Acupalpus* in a more restricted sense and separate it from *Stenolophus*, *Idiomelas* (usually under the name *Hemiaulax*) and other related taxa on the basis of the differently arranged posterior series of marginal elytral punctures. These punctures in *Acupalpus* form a more or less continuous row in contrast to those both in *Stenolophus* s. l. and in *Idiomelas*, which are divided into two groups of four punctures each. Noonan kept Schaubberger's treatment of *Hemiaulax* but considered *Stenolophus* in a rather broad sense as a separate genus.

Recently, Sciaky (1992) synonymized *Idiomelas* with *Trichotichnus* A. Mor. mainly on the basis of external similarities of *Idiomelas morio* Mén. with some Japanese species of *Trichotichnus*, in particular *T. ryukyuensis* Habu, 1969. As has already been noted elsewhere (Kataev in Kryzhanovskij & al., 1995: 137), this opinion is surely incorrect, because *Idiomelas* and *Trichotichnus* actually differ, among other things, in the number of setae at the anterior margin of the penultimate labial palpomere and thus

belong to different subtribes: *Idiomelas*, having two such setae, to the subtribe *Stenolophina*, and *Trichotichnus*, having at least three setae, to the *Harpalina*.

By all characters combined, the genus *Idiomelas* as treated here is very similar and apparently most closely related to the genus *Stenolophus*. The latter (including *Egadroma* Motsch., *Astenolophus* Habu, and *Agonoderus* Dej. as subgenera) is a large and morphologically diverse group. The main character separating *Idiomelas* from *Stenolophus* is the deep and sharp subapical sinuation of the elytra with a blunt tooth at their base (Figs 22, 25). In *Stenolophus*, the elytral subapical sinuation is either weak or absent, sometimes more deep (in some Oriental members) but not sharp and without a tooth at its base (Fig. 36). The other distinctive features of *Idiomelas* listed above (see Description) may be found among members of *Stenolophus*, in particular both taxa agree in the female genitalia (Figs 23, 26) and the shape of the male protarsomeres (Figs 13, 17, 20). Based mainly on features of 5th tarsomere with 1-3 pairs of setae underneath and on glabrous abdominal sternites, Iablokoff-Khnzorian (1976) united *Hemiaulax* (= *Idiomelas* according to Iablokoff-Khnzorian) and *Egadroma* into a single genus *Egadroma* separated from *Stenolophus*. This treatment seems to be rather justified, since the male genitalia in *Idiomelas* are also rather similar to those in some species of *Egadroma* (compare, for example, Figs 37-46 and 54-59). However, *Stenolophus*, as here accepted, is a rather heterogeneous complex which is in need of revision on a worldwide basis, and for the present we prefer to treat *Idiomelas* as a separate genus, and *Egadroma* as a subgenus of *Stenolophus*.

The distinctive features of the Palearctic *Idiomelas* and of the mainly Ethiopian *Egaploa* have never been compared as yet. Originally, *Egaploa* was established for *Stenolophus crenulatus* as a genus related to *Egadroma*. In fact *Egaploa* is most closely related to *Idiomelas* and there seems to be no reason to allot it a rank higher than subgeneric, because both taxa are very similar in appearance and share all main distinctive features, including male genitalia. The only significant character separating *Egaploa* from *Idiomelas* s. str. is the coarsely punctate elytral striae (this character state is regarded as apomorphic because the striae are smooth in *Idiomelas* and most other *Stenolophina*). Other distinctive features of *Idiomelas* and

Egaploa listed in the key (see below) are usually variable among species within larger genera of *Stenolophina*.

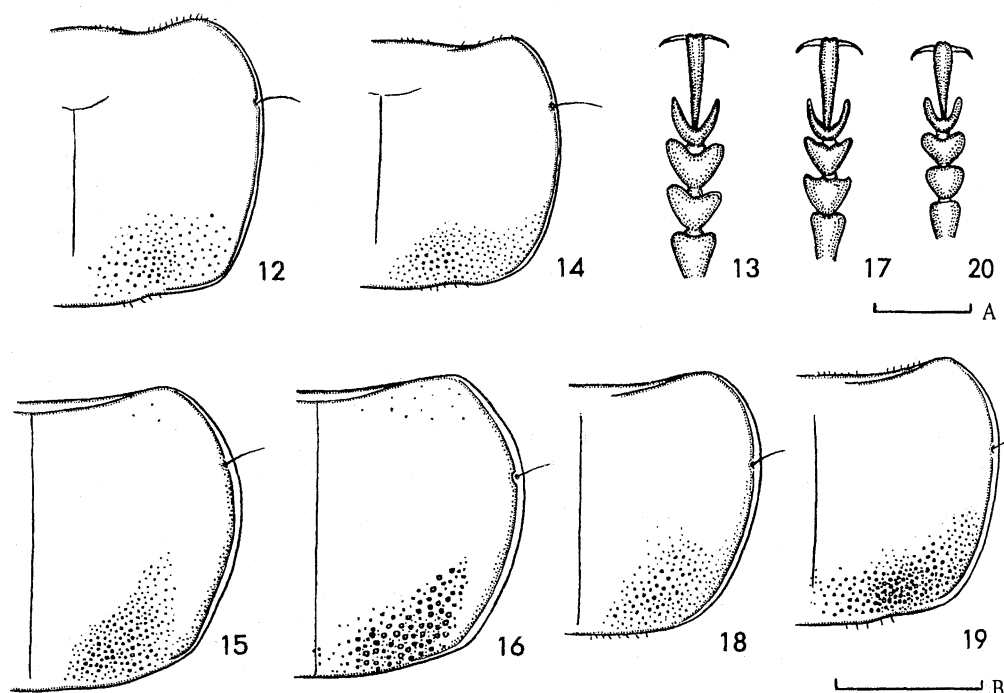
Key to species of the genus *Idiomelas*

1. Striae of elytra smooth, impunctate. Elytral microsculpture in both sexes distinct, consisting of isodiametric or scarcely transverse meshes. Scutellar stria long. Tarsi relatively longer. 5th tarsomere with 2-3 pairs of setae underneath. Medial teeth in internal sac of penis complex, each with several branches. (Subgenus *Idiomelas* Tschitschérine) 2
- Striae of elytra coarsely punctate anteriorly, almost smooth posteriorly. Elytral microsculpture very fine, consisting of thin transverse lines, obsolete in male. Scutellar stria short or rudimentary. Tarsi relatively shorter, 5th tarsomere with one pair of setae underneath. Medial teeth in internal sac of penis simple, each uniramous. (Subgenus *Egaploa* Alluaud) 3
2. Pronotum with less strongly rounded sides and more distinct hind angles (Fig. 12). 5th tarsomere with three pairs of setae underneath in most specimens. Average body size greater: length 7.2-9.3 mm. Penis (Figs 37-41) with a comparatively smaller apical capitulum and with terminal lamella distinctly bent dorsally . . . **I. morio** (Mén.)
- Pronotum with more strongly rounded sides and usually almost indistinct, broadly rounded hind angles (Fig. 14). 5th tarsomere with two pairs of setae underneath in most specimens. Average body size smaller: length 6.5-8.3 mm. Penis (Figs 42-46) with a comparatively larger apical capitulum and with terminal lamella almost not bent dorsally **I. nigripes** (Reitt.)
3. Bead along anterior margin of pronotum complete, not interrupted medially (Fig. 15, 16). Prosternum laterally and proepisterna coarsely punctate. Pronotal basal edge glabrous. Anal sternite in male with one pair of setae. Legs dark. Body size greater: 7.8-8.7 mm. Terminal lamella of penis (Figs 27-29) distinctly bent dorsally and strongly widened distally. Teeth in internal sac situated in pairs (see dorsally) **I. crenulatus** (Dej.)
- Bead along anterior margin of pronotum interrupted medially (Figs 18, 19). Prosternum and proepisterna smooth. Pronotal basal edge ciliate. Anal sternite in male with two pairs of setae. Legs pale, brownish yellow. Body smaller: 6.7-8.1 mm. Terminal lamella of penis (Figs 30-35) more or less straight, not bent dorsally and less strongly widened distally. Teeth in internal sac unpaired **I. fulvipes** (Erich.)

Subgenus *Idiomelas* Tschitschérine, 1900

Diagnosis. See key.

Distribution. Desert areas of the Palearctic from Asia Minor to Mongolia and China.



Figs 12-20. 12, 13, *Idiomelas morio*; 14, *I. nigripes*; 15-17, *I. crenulatus*; 18, 19, *I. fulvipes*; 20, *Stenolophus teutonus*. 12, 14-16, 18, 19, right part of pronotum; 13, 17, 20, left protarsus. Scales: A = 0.5 mm (Figs 13, 17, 20); B = 1.0 mm (Figs 12, 14-16, 18, 19).

***Idiomelas (Idiomelas) morio* (Ménétriés, 1832)**
(Figs 12, 13, 21-23, 37-41, 47)

Stenolophus morio Ménétriés, 1832: 136.

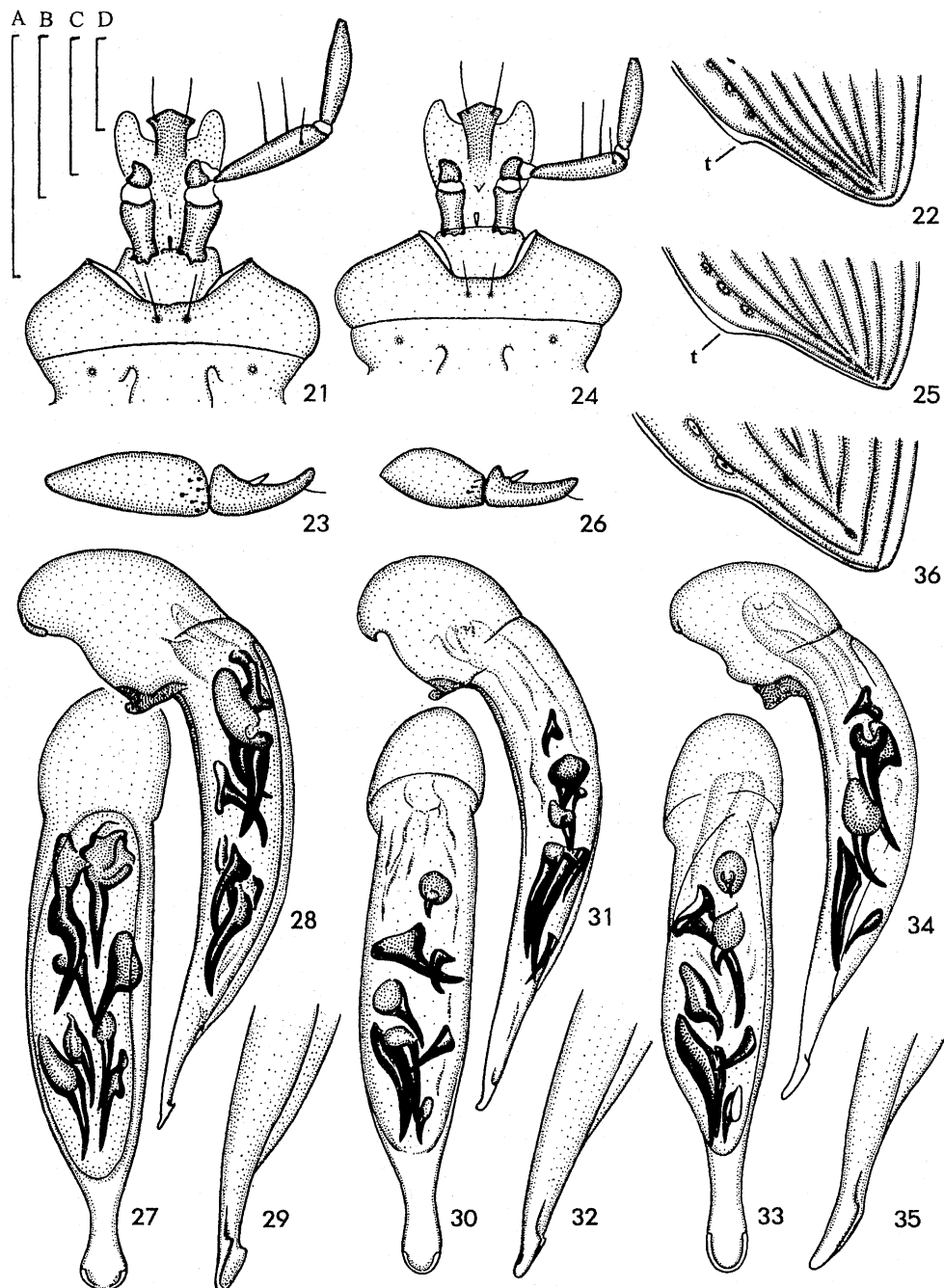
Type material examined. Lectotype (designated here), female with labels "Lenkoran" and "*morio* Menetr. Baku" (ZISP).

Other material examined. More than 60 specimens from the following localities: **Azerbaijan:** Ganja, Geoktapa, Mugan', Aleksandrovka, Karadonly, Aresh, Nukha; **Turkmenia:** Ghiaurs, Germat, Chikishlar, Ashkhabad, Tedzhen, Geoktepe, Bayat-Khodzhi, Ghiaz-Giadyk, Bayram-Ali, Kushka, Morgunovka (ZIK), Dort-Kuyu, Kara-Bata; **Tajikistan:** Karalang, 10 km E Dusty; **Iraq:** Bagdad (TTMB); **Iran:** *Sistan*, Husseinabad, Neizar; *East Azerbaijan*, Sufian; *Mazenderan*, Khadji-Nefes; *Khuzestan*, Magomerra at the Karun River, Malamir.

Description. Body length 7.2-9.3 mm, width 2.8-3.7 mm.

Dark brown to black, shining; palpi, antennae and tarsi brownish yellow; apical palpomeres and antennae from 3rd segment on infuscated.

Head 0.66-0.72 (mean 0.70) times as wide as pronotum, with large hemispherical eyes. Pronotum (Fig. 12) weakly convex, 1.37-1.45 (mean 1.41) times wider than long, widest before the middle and narrowed posteriorly. Pronotal sides rounded anteriorly, almost straight before broadly rounded but usually well marked hind angles. Anterior margin of pronotum weakly concave; basal margin either straight or slightly rounded; basal edge ciliate. Bead along anterior margin of pronotum interrupted medially; lateral pronotal furrows usually prolonged onto lateral parts of the pronotal base, rarely finishing near hind angles. Base of pronotum finely punctate; sometimes punctuation restricted to rather broad basal foveae. Elytra long, 1.63-1.74 (mean 1.68) times longer than wide and 2.79-3.00 (mean 2.93) as long as pronotum, very scarcely rounded on sides, widest about in the middle; sutural angle acute, blunt at tip; humeri broadly rounded. Elytral striae impunctate, deeper before apex; intervals rather flat.



Figs 21-36. 21-23, *Idiomelas morio*; 24-29, *I. crenulatus* (Burkina Faso); 30-32, *I. fulvipes* (Djibouti); 33-35, *I. fulvipes indus* ssp. n. (holotype); 36, *Stenolophus agonoides*. 21, 24, labium; 22, 25, 36, apex of left elytron (t, tooth); 23, 26, stylus; 27, 30, 33, penis, dorsal aspect; 28, 31, 34, penis, view from left side; 29, 32, 35, apex of penis. Scales: 0.5 mm; A (Figs 29, 32, 35), B (Figs 21, 23, 24, 26), C (Figs 27, 28, 30, 31, 33, 34), D (Figs 22, 25, 36).

Dorsal microsculpture consisting of isodiametric or scarcely transverse meshes on labrum, head behind eyes, margins of pronotum, and on elytra; sometimes very obsolete meshes present also on pronotal disc.

Prosternum and proepisterna smooth. Anal sternite with one pair of setae in male and two pairs in female. Tarsi rather slender, glabrous dorsally (sometimes with very sparse and short pubescence on fore and middle tarsi in male); 5th tarsomere with three pairs of setae underneath in most specimens (rarely only with two pairs). First four segments of fore and middle tarsi in male dilated (1st tarsomere to a lesser degree) and carrying two rows of scale-like adhesive hairs underneath.

Penis (Figs 37-41) arcuate, with a rather long terminal lamella narrowed before a small horseshoe-like capitulum and distinctly bent dorsally. Internal sac with six large teeth, medial are branched.

Distribution (Fig. 47, a). Eastern Transcaucasia (Azerbaijan, Armenia), Turkey [Efes (Sciaky, 1992)], Iraq, northern Iran, southern Turkmenia, and southern Tajikistan.

Remarks. Described as *Stenolophus* from numerous specimens taken at Lenkoran, Azerbaijan. I have examined only one of these and here designate it as lectotype (see above).

Idiomelas (Idiomelas) nigripes (Reitter, 1894), stat. rest.

(Figs 14, 42-47)

Harpalus morio var. *minor* Ménétériés, 1848: 25 (nom. nudum).

Stenolophus nigripes Reitter in Hauser, 1894: 35.

Idiomelas morio var. *minor* Tschitschérine, 1900: 364.

Type material examined. Lectotype (designated here) of *Stenolophus nigripes* Reitt., male with labels: "Sten. nigripes m. Serafschan", "coll. Reitter", "morio", and "Holotypus 1894 *Stenolophus nigripes* Rtt." (TTMB); 5 paralectotypes (♂ and ♀) from "Margelan", "Turkestan", "Dschesak", and "Samar-kand" (TTMB).

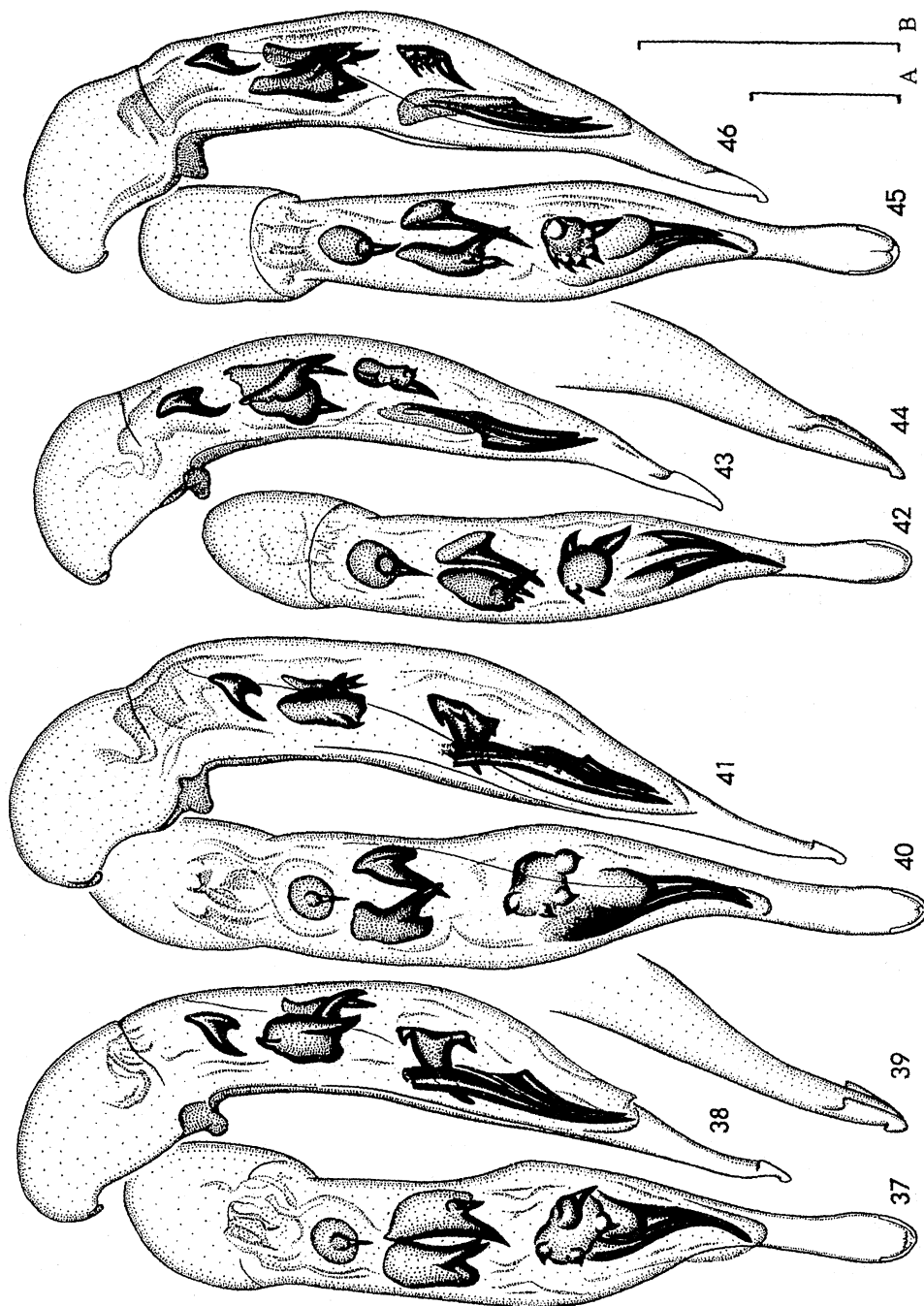
Other material examined. More than 500 specimens from the following localities: **Russia:** *Daghestan*, env. Babayurt; *Astrakhan Prov.*, Astrakhan, Astrakhan Nature Reserve; *Orenburg Prov.*, Kumak; **Kazakhstan:** Barsa-Kelmes, Kzyl-Orda, Dzhele, Dzhusaly, Timur; **Kirghizia:** "Talass-Thal"; **Uzbekistan:** *Karakalpakia:* Takhta-Kupyr (MPU), Akmanit (40 km W of Nukus) (cSOC), Beltau, Nukus, Khodzheyli, Kegeyli; *Khorezm Prov.:* Khiva; *Bukhara Prov.:* Bukhara, Baga-Abzal (45 km NW Bukhara); *Samar-kand Prov.:* Samar-kand, Kagan, Kat-kurgan; *Fergana Prov.:* Yazyavan; *Syr-Darya Prov.:* Golodnaya Step; **Turkmenia:** Dargan-Ata,

Kerki, Khalach near Kerki, Chardzhou, Farab, Repetek, 120 km W Leninsk, Shasenem; **Mongolia:** *Bayan-Khongor Aimak*, 20 km SE Shine-Dzhinst; **China:** *Xinjiang Uygur Autonomous Reg.*, Yarkend; *Inner Mongolia*, Hujertu-gol (SMNHS); *Henan*, Pinglu (ZMUK).

Description. Very similar to *I. morio*. Average body size smaller: length 6.5-8.3 mm, width 2.9-3.3 mm. Head relatively smaller, 0.66-0.69 (mean 0.67) times as wide as pronotum. Pronotum (Fig. 14) 1.39-1.50 (mean 1.43) times wider than long, rounded on sides more strongly than in *I. morio*, with lateral furrows obliterated near less strongly marked hind angles. Elytra relatively wider than in *I. morio*, 1.55-1.63 (mean 1.58) times longer than wide and 2.82-3.06 (mean 2.91) as long as pronotum. 5th tarsomere with two, rarely three, pairs of setae underneath. Penis (Figs 42-46) with apical capitulum much longer than in *I. morio*, and terminal lamella almost not bent dorsally.

Distribution (Fig. 47, b). Russia: northern Ciscaucasian area, lowlands of Kazakhstan, Kirghizia, Uzbekistan and northern Tajikistan, northern Turkmenia, Mongolia and northern China.

Remarks. This species was described as *Stenolophus* from "Transcaspien, Turkestan, and Afghanistan" (in fact perhaps from Turkmenia near the Afghan frontier). Reitter compared his species with *S. morio* but the characters given by him for the latter (in particular "Fld. ohne abgekürzten Scutellarstreifen") clearly indicate that *Stenolophus morio* sensu Reitter is identical to *Loxoncus procerus* Schaum. Apparently, Reitter failed to distinguish his species from the species described by Ménétériés as *S. morio*. Re-examination of the type series of *S. nigripes*, consisting of eight syntypes (TTMB), has revealed that two of them, the male from Geok-Tepe (Turkmenia) and the male labelled "Afghanen-Grentze", actually belong to *Idiomelas morio*. In keeping with the more traditional treatment of the taxa *morio* and *nigripes*, the lectotype of *Stenolophus nigripes* is designated by us from among the syntypes nonconspecific with *I. morio* (see above). Prior to Reitter's publication of the description of *S. nigripes*, the same form from "Steppes des Kirghises" was named by Ménétériés (1848) as "var. *minor*" but he did not provide any diagnosis of it. Therefore Tschitschérine (1900), who was the first to present the distinctive features of var. *minor*, is the true author of this name. In the same work, Tschitschérine synonymized *nigripes*



Figs 37-46. *Idiomelas*, penis. 37-41, *I. morio* (37, 38, Azerbaijan; 40, 41, Tajikistan); 42-46, *I. nigripes* (42, 43, Kazakhstan; 45, 46, Turkmenia). 37, 40, 42, 45, dorsal aspect; 38, 41, 43, 46, view from left side; 39, 44, apex of penis. Scales: 0.5 mm; A (Figs 37, 38, 40-43, 45, 46), B (Figs 39, 44).

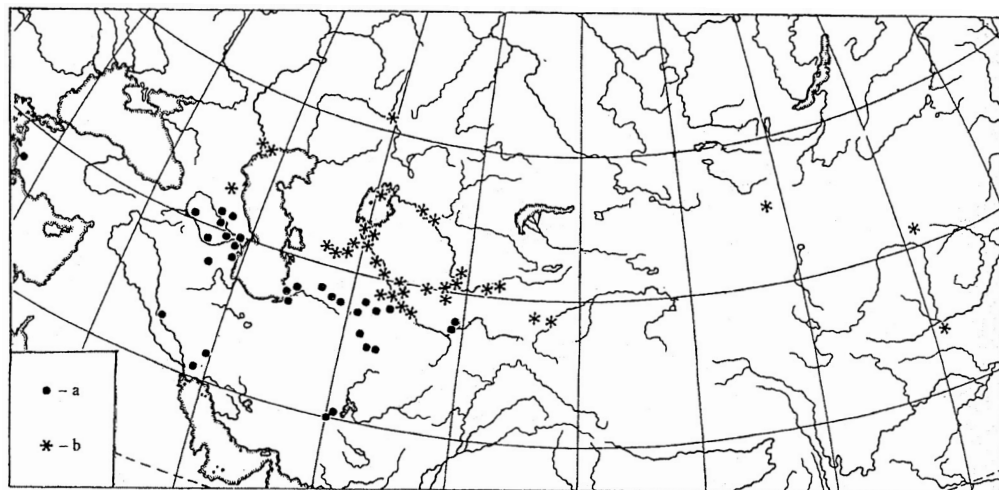


Fig. 47. *Idiomelas*, distribution. a, *I. morio*; b, *I. nigripes*. Localities in Turkey and Armenia are given according to Sciaky (1992) and Iablokoff-Khnzorian (1976) respectively.

with *minor*. All subsequent authors but Schauberger (1935) treated *nigripes* as a synonym of *morio*, yet the constant differences in the male genitalia and external characters warrant specific independence of these taxa.

Subgenus **Egaploa** Alluaud, 1916, stat. n.

Egaploa Alluaud, 1916: 64. Type species *Stenolophus crenulatus* Dejean, by monotypy.

Diagnosis. See key.

Distribution. Ethiopian (including Madagascar) and the western part of the Oriental Region.

Idiomelas (Egaploa) crenulatus (Dejean, 1829), comb. n.
(Figs 15-17, 24-29)

Stenolophus crenulatus Dejean, 1829: 432.

Type material examined. Holotype, male with labels: "σ", "crenulatus. m.", "Type", and "Stenolophus crenulatus Dejean" (MHNP).

Other material examined. 11 specimens from the following localities: Burkina Faso, Ouagadougou; Gabon, "Gabon".

Description. Body length 7.8-8.7 mm, width 3.2-3.4 mm.

Dark brown to black, shining, upper surface scarcely iridescent; palpi, antennae and tarsi brownish; antennae from 3rd segment on slightly infuscated.

Head 0.65-0.69 (mean 0.67) times as wide as pronotum, with large hemispherical eyes. Antennae moderately long, pubescent from 3rd segment on.

Pronotum (Figs 15, 16) weakly convex, 1.38-1.46 (mean 1.41) times as wide as long, widest before the middle, narrowed posteriorly. Pronotal sides distinctly rounded anteriorly, either straight or scarcely rounded before obtuse hind angles, usually broadly rounded at tip. Anterior margin of pronotum weakly concave; basal margin slightly rounded medially and oblique laterally; basal edge glabrous. Bead along anterior margin of pronotum complete, not interrupted medially; lateral furrows rather deep, obscurely prolonged onto lateral parts of pronotal base. Disc at base coarsely punctate; a few punctures, as a rule, present also near anterior margin between medial line and anterior angles. Basal punctation often restricted to broad basal foveae; the latter slightly prolonged anteriorly along sides of pronotum and separated from lateral furrows by a distinct narrow convexity.

Elytra long, 1.57-1.64 (mean 1.60) times as long as wide and 2.71-2.89 (mean 2.81) as long as pronotum, with parallel or scarcely rounded sides. Sutural angle acute, rather sharp at tip; humeri broadly rounded. Elytral striae moderately deep, punctate; punctures very coarse basally, becoming smaller and gradually obliterate towards apex; intervals somewhat convex.

Dorsal microsculpture consisting of rather distinct isodiametric meshes on labrum, head behind eyes, and margins of pronotum; elytral microsculpture very fine, consisting of thin transverse lines, obsolete in male.

Prosternum laterally and proepisterna coarsely punctate. Anal sternite with one pair of setae in male and two pairs of setae in female. Tarsi stouter than in other congeners, glabrous dorsally. 5th tarsomere with one pair of setae underneath. First four segments of fore and middle tarsi in male dilated and carrying two rows of scale-like adhesive hairs underneath. Lateral tarsal furrows visible only on 1st metatarsomere, obliterate.

Penis (Figs 27, 29) arcuate, with a rather long terminal lamella narrowed before a broad horseshoe-like capitulum and curved dorsally. Internal sac with eight large teeth arranged in pairs.

Distribution. Ethiopian Region. The distribution of *I. crenulatus* requires a revision, because the species has repeatedly been confused with *I. fulvipes* by previous authors.

Remarks. The species has been described from a single male without indication of a locality.

***Idiomelas (Egaploa) fulvipes* (Erichson, 1843),**
comb. n., stat. rest.
(Figs 18, 19, 30-35)

Stenolophus fulvipes Erichson, 1843: 216.

Description. Very similar to *I. crenulatus*. Body smaller: length 6.7-8.1 mm, width 2.6-3.2 mm. Palpi, antennae and legs paler, brownish-yellow, unicolorous, much paler than underside of body. Head relatively larger, 0.69-0.77 times as wide as pronotum. Pronotum (Figs 18, 19) 1.40-1.58 times wider than long, notably narrowed posteriorly, widest before the middle, with sides either scarcely rounded or straight before broadly rounded (usually more broadly than in *I. crenulatus*) hind angles; basal edge ciliate. Bead along anterior margin of pronotum interrupted medially. Basal area near hind angles flatter than in *I. crenulatus*; basal foveae separated from lateral furrows less distinctly. Elytra relatively broader than in *I. crenulatus*, 1.51-1.61 times longer than wide and 2.78-3.03 as long as pronotum; intervals less convex. Dorsal microsculpture same as in *I. crenulatus*, similarly distributed but slightly finer. Prosternum and proepisterna smooth. Anal sternite in both sexes with two

pairs of setae. 1st segment of middle tarsi in male nondilated, without adhesive hairs underneath. Penis (Figs 30-35) with a more or less straight terminal lamella (lateral aspect), less strongly narrowed on sides before a comparatively narrow apical capitulum than in *I. crenulatus*. Teeth in internal sac unpaired.

Distribution. Apparently, this species is widespread in the Ethiopian (including Madagascar) and the western part of the Oriental Region (east up to Hindustan).

Remarks. None of the previous authors (Alluaud, 1916; Jeannel, 1948; Basilevsky, 1951; and others) has recognized more than a single species of *Egaploa*, treating both *fulvipes*, described from Angola, and *basicollis*, described from the Seychelles, as synonyms of *crenulatus*. However, a study of material available from various localities has shown that *fulvipes* (= *basicollis*) is a distinct species clearly different from *crenulatus* both by external and male genitalic characters. The synonymy of *fulvipes* and *basicollis* follows from their original descriptions alone, in particular from the pale colour of legs mentioned for both these forms.

I. fulvipes should be divided into two subspecies.

***Idiomelas (Egaploa) fulvipes fulvipes* (Erichson, 1843)**
(Figs 30-32)

Stenolophus fulvipes Erichson, 1843: 216.

Anisodactylus basicollis Fairmaire, 1892: CLI.

Type material examined. Lectotype (designated here), male with labels: "Angola", "Type", "*Stenolophus fulvipes* Er. Typ." [Erichson's handwriting], "52832", "*fulvipes* Er. [?]Sdort", "*Stenolophus fulvipes* Er.", "*Stenolophus fulvipes* Er. (= *Egaploa crenulata* Dej.), P. Basilevsky vid. 1962" (MNHB); and 2 paralectotypes (♂♂) with labels "52832" (MNHB).

Other material examined. 38 specimens from the following localities: **Cabo Verde** (without precise locality); **Djibouti**: Obock; **South Africa**: Bon Accord Dam, 10 miles N of Pretoria (ZMUL); **Yemen**: El Kodan.

Diagnosis. The nominotypical subspecies is characterized by the very broad head and pronotum [head 0.72-0.77 (mean 0.73) times as wide as pronotum, pronotum 1.45-1.58 (mean 1.50) times wider than long] and by the comparatively smaller apical capitulum of penis (Figs 30-32).

Distribution. Ethiopian Region including Cabo Verde, Madagascar, Seychelles and southern part of Arabian Peninsula.

***Idiomelas (Egaploa) fulvipes indus* ssp. n.**
(Figs 33-35).

Holotype. ♂, **Nepal**, Nepalgaji, 200 m, 17.VI.1995 (Ahrens & Pommer leg.; cSCHM).

Paratype. ♀, **India**, 18 km E Bangalore, 29.XII.1963 (Breev leg.; ZISP).

Diagnosis. Head and pronotum much narrower than in *I. fulvipes fulvipes* (head 0.69-0.70 times as wide as pronotum, pronotum 1.40-1.42 times wider than long); penis (Figs 33-35) with a comparatively larger apical capitulum.

Distribution. Hindustani, north to the Himalaya. Apparently, all records of *Egaploa crenulata* from India: Kodicanal (Alluaud, 1916; Jeannel, 1948), Ganjam, Surada (Andrewes, 1924), actually refer to *Idiomelas fulvipes indus* ssp. n. According to Andrewes (1924), the former occurs everywhere in India.

On some aspects of phylogeny of the genus *Idiomelas*

As it is clear from the above discussion, the genera *Idiomelas* and *Stenolophus* have common ancestry, and a direct ancestor of *Idiomelas* could have been similar morphologically to *Egadroma*.

Despite the fact that the subgenus *Idiomelas* s. str. has retained a greater number of ancestral features in its external morphology than *Egaploa* (for example, elytral striae smooth and scutellar stria long), we consider it phylogenetically younger than *Egaploa*. The reason is that *Idiomelas* s. str. possesses a clearly apomorphic state of the male genitalia, with many-branched medial teeth in the internal sac (Figs 37-46). Each of these teeth seems to be the result of fusion of several uniramous teeth characteristic of *Egaploa* (Figs 27, 28, 30, 31). We consider genitalic characters, in this case, more important for phylogenetic analysis than external ones.

According to our own data, the distributions of *Egaploa* species probably overlap, whereas species of the nominotypical subgenus are allopatric. Also, species of *Idiomelas* s. str. are more similar to each other morphologically than species of *Egaploa*, and therefore their divergence seems to have taken place more recently. Of the species of the subgenus *Egaploa*, *Idiomelas fulvipes* seems to be more primitive than *I. crenulatus*, because the former lacks such apomorphies as punctuation of the prosternum and

proepisternum, sexual dimorphism in number of setae on anal sternite, and complete bead along the anterior margin of the pronotum. *I. fulvipes* shares plesiomorphic states of some of these characters (prosternum and proepisternum smooth, bead along anterior margin of pronotum interrupted medially) with the members of the nominotypical subgenus and thus, in our opinion, is closest to the ancestor of the genus *Idiomelas*. It should be noted that the arrangement of the teeth in the internal sac of *I. fulvipes* is also similar to that of *Idiomelas* s. str. Of the two subspecies of *I. fulvipes*, *I. f. indus* ssp. n. has retained especially strong resemblance to the ancestral group of the genus *Idiomelas* since the broad head and pronotum characteristic of the nominotypical subspecies (they are much broader than in *I. f. indus* ssp. n. and all the other members of the genus *Idiomelas*) seem to be apomorphic features.

On the basis of these data, we suggest that the ancestor of the genus *Idiomelas* was most similar morphologically to *I. fulvipes indus* ssp. n. but possessed also some characters of

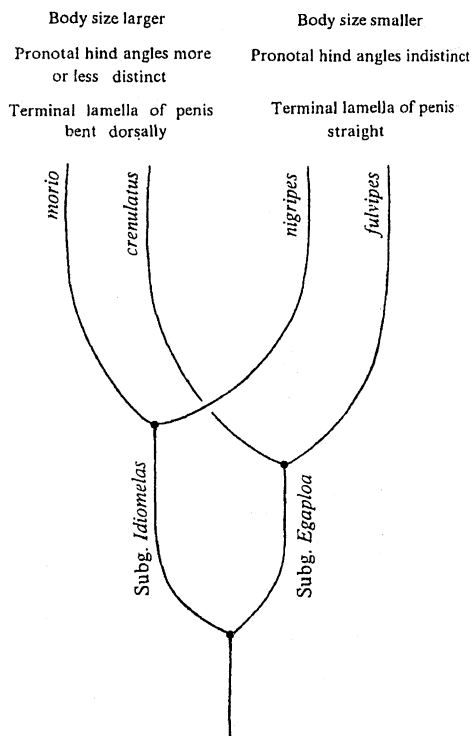


Fig. 48. Parallel development of some distinctive features in species of the subgenera *Idiomelas* s. str. and *Egaploa*.

the nominotypical subgenus (elytral striae smooth and scutellar stria long). The ancestral group of the genus *Idiomelas* might initially have occurred either in the southwest of the Oriental Region or in Africa, and later, after the Tethys Sea closed up in the Middle Miocene, the group could have penetrated Palaearctic Asia whence the nominotypical subgenus might have originated. The current distribution of the subgenera of *Idiomelas* suggests that, after their separation, they continued develop in geographical isolation from each other.

It is noteworthy that species of *Idiomelas* and *Egaploa* demonstrate an interesting kind of parallelism in their distinctive features (Fig. 48): the larger of the two species within each of the subgenera is characterized both by the median lobe with the terminal lamella more strongly bent dorsally (Figs 29, 39 and 32, 35, 44) and, on the average, more distinct hind angles of the pronotum (Figs 12, 15, 16 and 14, 18, 19). Particularly striking is the resemblance of *Idiomelas* (*Idiomelas*) *morio* to *I. (Egaploa)* *crenulatus*, on the one hand, and *I. (Idiomelas)* *nigripes* to *I. (Egaploa)* *fulvipes indus* ssp. n., on the other hand, in their terminal lamella (Figs 29, 39 and 35, 44). The reason for this parallelism is unknown but it is conceivable that, although the subgenera are isolated geographically and occupy two different biogeographical regions, speciation within each of them seems to have taken place under similar ecological conditions and affected by similar factors.

Stenolophus (Astenolophus) rufoabdominalis
sp. n.
(Figs 49-52)

Holotype, ♂, China, Yunnan, Siamonjan, 25 km NE Cheli, 850 m, 3.V.1957 (D. Panfilov leg.; ZISP).

Paratypes (9 specimens). China, Yunnan: 2 ♀, Davejshan near Binbian, 1350 m, 27.VI.1956 (D. Panfilov leg.; IZB, ZISP); 1 ♂, Zhujli, 1300 m, 10.VI.1956 (Huan Tian Zhun leg.; IZB); 2 ♀, 30 km SW Jinping, 500 m, 2.V.1956 (Huan Ke Zhen leg.; IZB, ZISP); 1 ♂, 1 ♀, Gaoligong Mts., 25° 22' N 98° 49' E, 17-24.V.1995 (O. Semela leg.; clTO); Vietnam, Vinhphu: 1 ♂, mountains near Tamdao, 14.V.1962 (O. Kabakov leg.; cKAB); Sonla: Songla, 3.V.1986 (A. Gorochoy; ZISP).

Description. Body length 4.8-5.6 mm, width 2.2-2.5 mm (in holotype, 5.4 and 2.4 mm, respectively).

Upperside black, shining, more or less strongly iridescent; mandibles and lateral margins of pronotum along lateral furrow

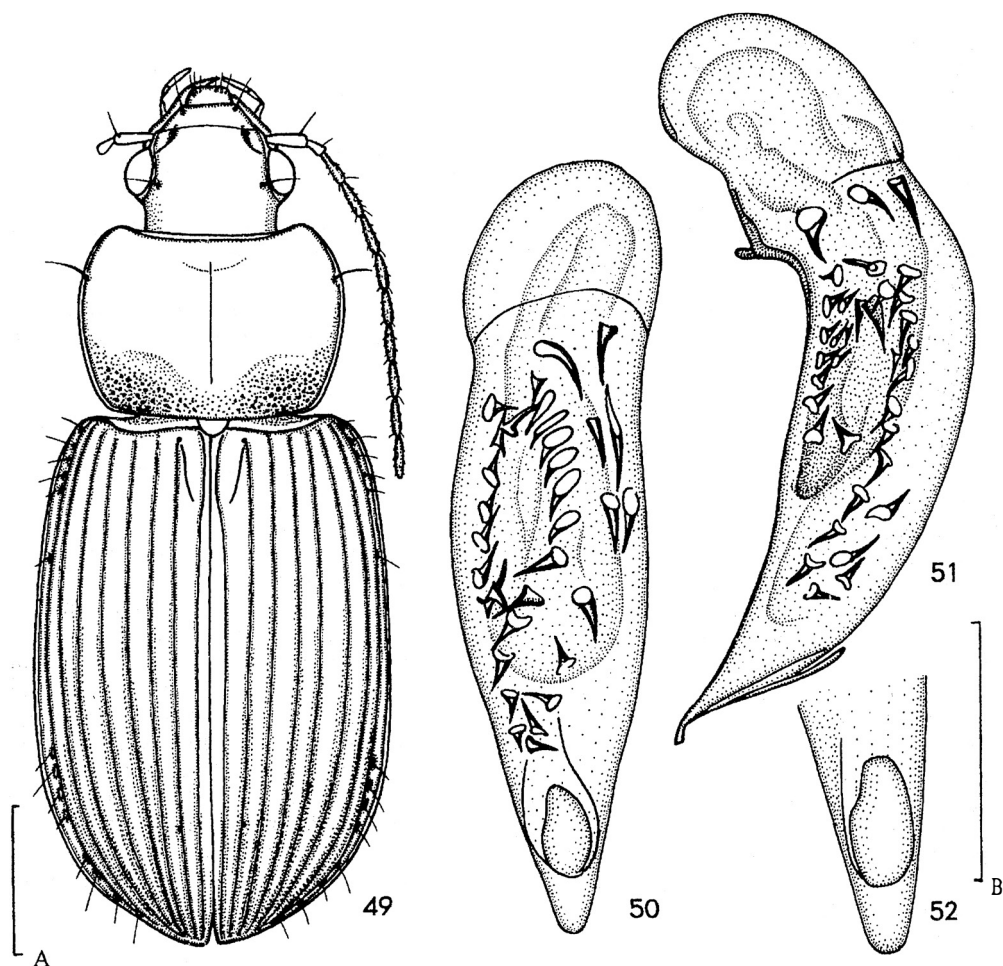
brownish yellow. Underside sharply bicolorous: coxae, prosternal process and abdominal sternites yellow-ferruginous, other sternites black; mentum usually brownish. Legs, palpi and basal two antennomeres yellow-ferruginous, other antennomeres dark brown.

Head comparatively small, 0.61-0.65 (mean 0.62) times as wide as pronotum, with rather large, hemispherical eyes ventrally narrowly separated from buccal fissures. Tempora convex, abruptly descending to the neck. Labrum not emarginate, rounded anteriorly. Frontal foveae rather deep; clypeo-ocular line fine, reaching the supraorbital furrow. Clypeal suture faint, often indistinct. Antennae extending approximately to one-sixth of elytra, pubescent from 3rd segment on.

Pronotum moderately convex, rather broad, 1.38-1.49 (mean 1.44) times wider than long, widest before the middle, with sides more or less evenly rounded throughout. Anterior margin concave, completely bordered; hind margin usually gently rounded, sometimes almost straight medially, faintly bordered only at hind angles; the latter broadly rounded. Anterior angles slightly protruding, obtuse and rounded at tip. Basal foveae shallow and broad, fused laterally with latero-basal depression; basal median part of pronotum convex. Lateral furrow narrow, not widened basally. Base of pronotum (sometimes only laterally) rather coarsely punctate; basal edge glabrous. Lateral seta situated in apical third of pronotum.

Elytra moderately convex, rather long, in males 1.43-1.48 (mean 1.46) times longer than wide, 2.82-2.94 (mean 2.87) times as long and 1.33-1.37 (mean 1.34) as wide as pronotum [in females these indices are 1.40-1.51 (mean 1.45), 2.76-2.92 (mean 2.82) and 1.36-1.41 (mean 1.39) respectively], widest behind the middle. Humeri prominent, rounded at tip. Sides of elytra faintly rounded, with distinct subapical sinuation. Sutural angles acute, narrowly rounded at tip. Basal elytral edge strongly sinuate laterally. Striae impunctate, much deeper apically than basally; intervals convex, very narrow before apex. Scutellar stria long, with a basal pore. Third interval in apical quarter with one discal pore near 2nd stria. Marginal elytral series consisting of 5 + 1 + 4 + 2 + 2 setigerous punctures.

Dorsal microsculpture developed only on head, on elytra along lateral margins



Figs 49-52. *Stenolophus* (*Astenolophus*) *rufoabdominalis* sp. n. (holotype). 49, habitus; 50, penis, dorsal aspect; 51, penis, view from left side; 52, apex of penis, dorsal aspect. Scales: A = 1 mm (Fig. 49); B = 0.5 mm (Figs 50-52).

(meshes isodiametric), and on pronotum (meshes transverse).

Ventral surface, except for short pubescence at apex of anal sternite, glabrous. Anal sternite rounded at tip, with one pair of setae in male and two pairs in female. Tarsi slender; 1st metatarsomere approximately as long as 2nd and 3rd together. 5th tarsomeres each with two pairs of setae underneath. 1st mesotarsomere (also 2nd in female) and 1st and 2nd metatarsomeres with shallow lateral furrow on each side.

Penis (Figs 50-52) stout, moderately arcuate; terminal lamella a little longer than wide, slightly narrowed apically, rounded at tip and strongly curved dorsally. Apical opening in dorsal position, covered by oval

lamina. Internal sac with numerous medium-sized teeth, most of them arranged in several snaky rows.

Distribution. Known from southern China (Yunnan) and northern Vietnam.

Comparison. The new species belongs to the subgenus *Astenolophus* Habu, 1973, characterized by two pairs of setae on 5th tarsomere underneath and short pubescence at apex of anal sternite (other abdominal sternites glabrous). *S. rufoabdominalis* sp. n. is easily distinguished from all the other species of this subgenus by having the underside sharply bicolorous and the terminal lamella of penis strongly bent dorsally. In other species of *Astenolophus*, the underside is unicol-

orous, either black or brown, and the terminal lamella of penis is more or less straight.

***Stenolophus (Egadroma) mjobergi* sp. n.**

(Figs 53-59)

Holotype, ♂, **Indonesia**, Sumatra, Tjinta Radja (Mjöberg leg.; SMNHS).

Paratypes (18 specimens). **Indonesia**, Sumatra: 6 ♂, 5 ♀, same date as holotype (SMNHS, ZISP); 1 ♂, Bah Lias (Mjöberg leg.; SMNHS); 2 ♂, 2 ♀, Medan (Mjöberg leg.; SMNHS); 1 ♂, Padang, Sumatra's Westkust, 2.V.1926 (E. Jacobson leg.; SMNHS); **Thailand**: 1 ♂, "Siam, Casteln.[au]" (ZISP).

Description. Body length 5.2-6.3 mm, width 2.0-2.5 mm (in holotype, 5.5 and 2.3 mm, respectively).

Upperside dark brown to black (in most specimens pronotum slightly paler than head and elytra), shining; elytra and pronotum moderately iridescent (the latter less strongly); mandibles basally, labrum throughout or only at outer margins, clypeus (often), supraorbital portions of head between clypeus and clypeo-ocular line, margins of pronotum, oval humeral maculae, latero-apical portion of elytra and 1st elytral interval brownish yellow. Underside brown to almost black but pronotal epipleura and apical portion of elytral epipleura much paler, brownish yellow. Legs, palpi and two basal antennomeres yellow, other antennomeres brown.

Head comparatively large, in males 0.80-0.82 (mean 0.81) times and in females 0.81-0.85 (mean 0.83) times as wide as pronotum, with large, convex eyes, the latter ventrally very narrowly separated from buccal fissure. Tempora scarcely convex, rather abruptly descending to the neck. Labrum anteriorly more or less straight, sometimes scarcely emarginate. Frontal foveae not deep; clypeo-ocular line somewhat deeper basally, very fine apically, reaching the supraorbital furrow. Clypeal suture distinct. Left mandible truncate at tip. Antennae extending approximately to the one-fifth of elytra, densely pubescent from 3rd segment on; besides, 2nd segment in apical half with several short hairs.

Pronotum moderately convex, rather broad, 1.41-1.47 (mean 1.44) times wider than long, slightly narrowed basally, widest in the apical third; its sides either almost evenly rounded throughout or becoming almost straight posteriorly, with a lateral setigerous pore in the apical quarter. Lateral furrow narrow, not widened basally, disappear-

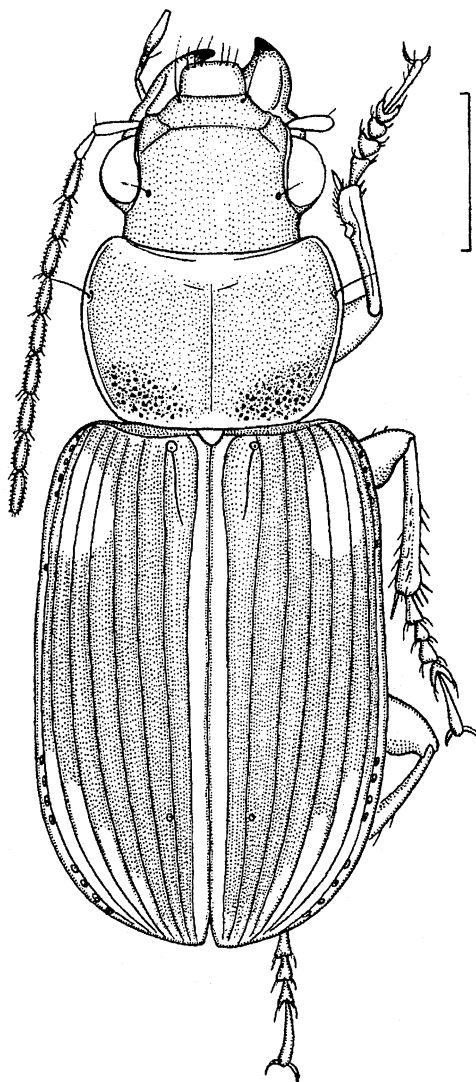
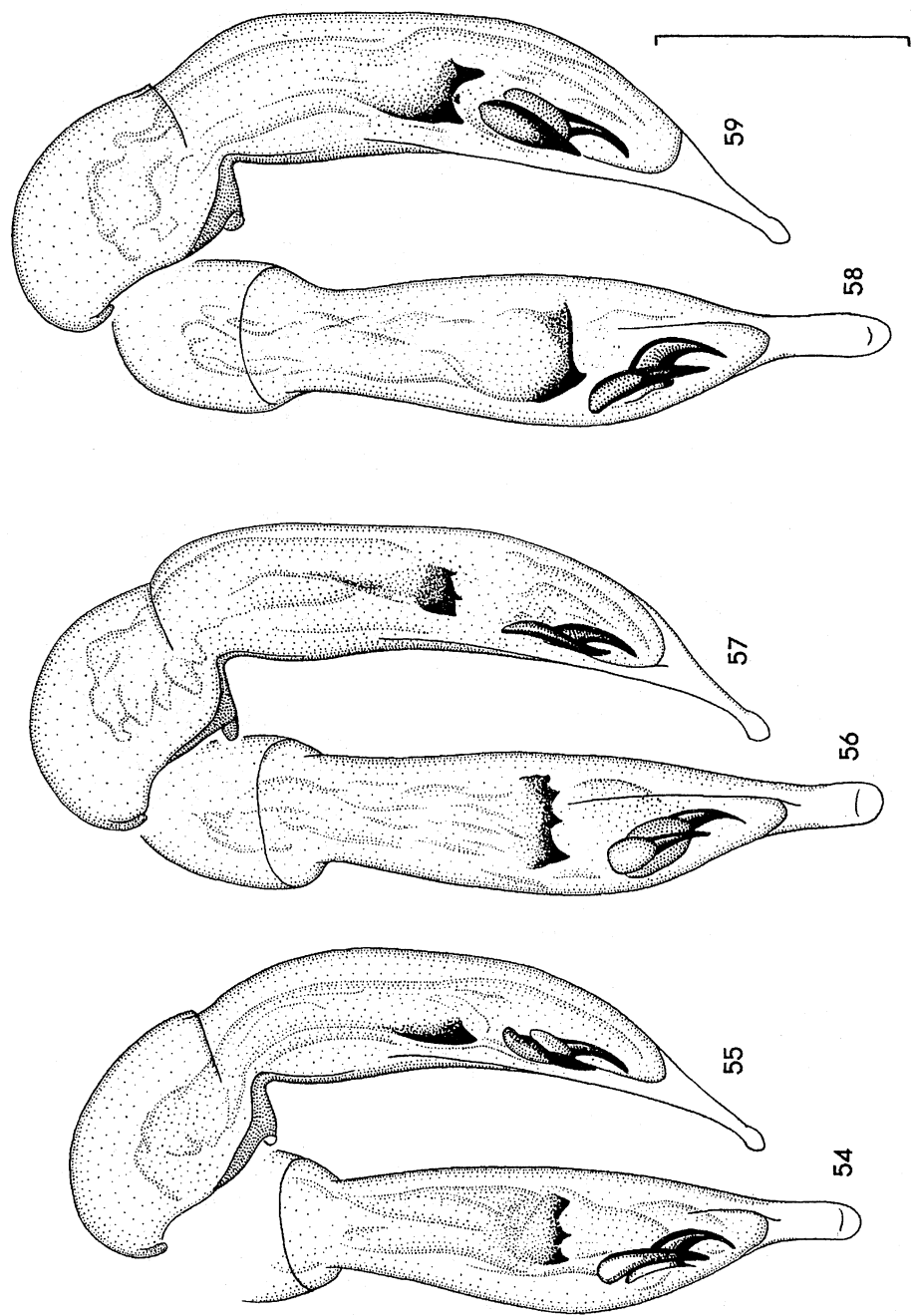


Fig. 53. *Stenolophus (Egadroma) mjobergi* sp. n. (holotype), habitus. Scale: 1 mm.

ing just before the broadly rounded hind angles. Anterior margin arcuately emarginate, bordered only laterally; hind margin scarcely rounded, not bordered. Anterior angles slightly protruding, more or less right, rounded at tip. Basal foveae shallow and broad, fused laterally with the shallow latero-basal depression; basal median part of pronotum convex. Punctuation in the basal foveae and the latero-basal depressions irregular, somewhat coarse; other portions of



Figs 54-59. *Stenolophus (Egadroma) nijobergi* sp. n., penis (54, 55, Tjinta Raja, holotype; 56, 57, Tjinta Raja, paratype; 58, 59, Thailand). 54, 56, 58, dorsal aspect; 55, 57, 59, view from left side. Scale: 0.5 mm.

pronotum impunctate. Basal edge with a few short setae on each side near basal fovea.

Elytra moderately convex, comparatively long, in both sexes 1.46-1.63 times (mean 1.54) longer than wide, 2.73-2.96 (mean 2.88) times as long and 1.22-1.36 (mean 1.29) times as wide as pronotum, faintly widened posteriorly, widest behind the middle. Humeri prominent, broadly rounded at tip; basal elytral edge notably sinuate laterally. The sides of elytra in their median portion either straight or only scarcely rounded; the subapical situation distinct, not deep. Sutural angle acute, somewhat sharper in female, narrowly rounded at tip in male. Striae impunctate, rather deep; intervals convex, rather strongly narrowed before the apex; 5th and 7th intervals as wide as 4th and 6th ones. Scutellar stria long, with a basal pore. Third interval in the apical quarter with one discal pore near 2nd stria. Marginal elytral series consisting of 5 + 1 + 4 + 2 + 2 setigerous punctures.

Dorsal microsculpture consisting of fine isodiametric meshes on head, fine transverse meshes on pronotum, and indistinct very thin transverse lines on elytral disc.

Ventral surface, except for short pubescence on prosternum and median portion of 2nd and 3rd abdominal sternites, glabrous. Anal sternite scarcely emarginate at apex in both sexes, with one pair of setae in male and two pairs in female. Tarsi slender, not long, 1st metatarsomere approximately as long as 2nd and 3rd together, 5th tarsomere with one pair of setae underneath; all tarsomeres without lateral furrows.

Penis (Figs 54-59) almost straight medially, bent basally and apically. Terminal lamella comparatively long, scarcely emarginate at sides and rounded at tip, with an apical capitulum. Apical opening shifted to the left side, without a lamina. Internal sac with two large curved teeth in apical portion and a short polyramous tooth in the medial portion.

Distribution. Indonesia (Sumatra) and Thailand.

Comparison. Based on the glabrous last abdominal sternites and the presence of one pair of setae on 5th tarsomeres underneath, *S. mjobergi* sp. n. belongs to the subgenus *Egadroma* Motschulsky, 1855. The new species is most similar in colour and habitus to the very common *S. quinquepustulatus* (Wiedemann, 1823) but differs from it in the relatively much larger head, truncate tip of the left mandible, narrower pronotum with pale

anterior and posterior margins, the anal sternite in male only scarcely emarginate at apex, terminal lamella of penis almost not widened apically and more curved ventrally, and apical teeth in internal sac curved. In colour, *S. mjobergi* sp. n. also resembles *S. smaragdulus* (Fabricius, 1798) and *S. quadrimaculatus* Macleay, 1888 but clearly distinguished from them by the elytral intervals 5 and 7 not widened apically, pronotal basal ridge setose and the male genitalia different. In addition, in *S. quadrimaculatus* the dorsal microsculpture is much more distinct than in *S. mjobergi* sp. n., the meshes on elytra of female are more or less isodiametric, and apex of the left mandible rather sharp, not truncate.

Etymology. The species is named after the Swedish entomologist E. Mjöberg who collected the most part of the type series.

Acknowledgements

I am very grateful to Dr. R. Danielson (MZLU), Dr. T. Deuve (MHN), Dr. F. Hieke and Dr. M. Uhlig (MNKB), Dr. N. Ito (Kawanishi City), Dr. P. Lindskog (SMNHS), Dr. K. Makarov and Dr. A. Matalin (MPU), Dr. O. Martin (ZMUC), Dr. O. Merkl and Dr. Gy. Szél (TTMB), Dr. R. Poggi (MSNG), Dr. A. Puchkov (ZIK), Dr. O.N. Kabakov and Dr. I.M. Sokolov (St. Petersburg), Dr. J. Schmidt (Rostock) for loaning some materials under their care. Dr. S.I. Golovatch (Moscow) kindly checked the English of the final draft. The work was fulfilled using scientific collections of the Zoological Institute, Russian Academy of Sciences, which obtain financial support from the Science and Technology State Committee of Russian Federation (Reg. No. 97-03-16).

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Received 16 October 1996