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New taxa of the tribes Pseudoliodini and Scotocryptini from Madagascar and the Ivory Coast (Coleoptera, Leiodidae, Leiodinae)

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ŠVEC Z. 2004: New taxa of the tribes Pseudoliodini and Scotocryptini from Madagascar and the Ivory Coast (Coleoptera, Leiodidae, Leiodinae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) **89:** 53–95. – *Dermatohomoeus annae, D. angelinii, D. bulirschi, D. ferrugineus, D. madagascarensis, D. micropunctatus* and *D. similis* spp.nov., *Cyrtusiola anophthalma*, *C. brunnea*, *C. dentata*, *C. reticulata, C. tibialis* spp.nov. from Madagascar, *Pseudocyrtusiola* gen.nov. (type species *P. clavigera* sp.nov.) from Madagascar and *Termitoglobus semipunctatus* sp.nov. from the Ivory Coast are described. Keys to genera of African and Madagascan Pseudoliodini and Scotocryptini and keys to identification of all the species of the genus *Cyrtusiola* Hlisnikovský, 1974 and of the Madagascan species of the genus *Dermatohomoeus* Hlisnikovský, 1963 are given. The occurrence of the genus *Dermatohomoeus*, belonging to tribe Pseudoliodini, is recorded from Madagascar for the first time.

Key words. Leiodidae, Leiodinae, Pseudoliodini, Scotocryptini, *Dermatohomoeus*, *Cyrtusiola*, *Pseudocyrtusiola*, *Termitoglobus*, keys, descriptions, Madagascar, Ivory Coast

Introduction

The tribe Pseudoliodini is distributed worldwide. It comprises 12 genera with 148 species, among them 39 species, including those described in this paper, belonging to *Dermatohomoeus* Hlisnikovský, 1963. This genus, as well as the tribe Pseudoliodini, is recorded from Madagascar for the first time. The genus *Dermatohomoeus* has been studied mainly by DAFFNER (for instance 1988), HOSHINA (1999), ŠVEC (1996b, 1997) and COOTER & ŠVEC (2002).

Scotocryptini are known to occur throughout the world except New Zealand. The tribe comprises 10 genera with 53 species, including those described in this paper. The presence of Scotocryptini on Madagascar was discovered eight years ago when two species of *Cyrtusiola* Hlisnikovský, 1974 were described (ŠVEC 1996a). At present two genera comprising eight species are known to occur in Madagascar.

The Pseudoliodini and Scotocryptini, apart from 6 inquiline genera living in the nests of Meliponinae bees and termites, inhabit leaf litter or other rotten plant remains permeated and being decomposed by fungi and bacteria; other species are found in the fruiting bodies of fungi. The relationships between mycophilous beetles and fungi can be complicated by inquilism (NEWTON 1998). The species associated with fungi usually occur under specific conditions determined by the origin, age and biodiversity of the forest vegetation, temperature, humidity etc. that are important for the growing fungi, therefore at least some of the mycophilous beetles could be considered as an indicator of habitat quality.

The species described in this paper, probably with the exception of the new *Termitoglobus* Reichensperger, 1915, appear to occur in decomposing plant remains. They have been taken by sifting leaf litter or rotten wood. It is apparent that some of these species do not demand the special living conditions provided only by virgin forests. This is indicated by the field data "disturbed forest" recorded for *Dermatohomoeus annae*, *D. madagascarensis* and *D. micropunctatus* spp.nov. These species are also recorded from remnants of forest. The virgin forests of Madagascar have been reduced in size. As a result the type of vegetation and also, without doubt, the type and richness of their fauna has changed.

Material

Abbreviations

BC . . . . . Petr Bulirsch, private collection, Prague
FMNH . . . . . The Field Museum of Natural History, Chicago
GNHM . . . . . Natural History Museum, Göteborg
HNHM . . . . . The Hungarian Natural History Museum, Budapest
MNHG . . . . . The Museum of Natural History, Geneva
MNHUB . . . . . The Museum für Naturkunde in Berlin
MMB . . . . . Moravian Museum, Brno
SC . . . . . Zdeněk Švec, private collection, Prague

The present work is based on the study of material from BC, FMNH, HNHM, MNHG, and MNHUB. The material examined was compared with the types deposited in SC, GNHM and HNHM. The bulk of the material studied is deposited in FMNH, MNHUB, HNHM, MNHG, and MMB, the rest in SC and BC.

Locality data for type material are given in quotation marks. The author's notices are given in square brackets following the data.

Methods

Dissected genitalia were mounted in water-soluble mediums, either dimethyl-hydantoin formaldehyde (DMHF) or gum arabic.

The male genitalia were dissected in all the species described except *Cyrtusiola annophthalma* sp.nov. The new species, *Cyrtusiola annophthalma,* is strongly sclerotised and of small size and as the distal part of the aedeagus was already protruding sufficiently clear of the abdomen to show specific characters, no attempt was made to dissect the genitalia. Previous and present studies have not discovered any specific and significant characters in the shape of the spermatheca in individual species of *Dermatohomoeus* and *Cyrtusiola*. Thus spermathecae were not figured except for that of *Cyrtusiola brunnea* sp.nov., presented here as an example of the shape characteristic for the genus.

The measurements, unless stated otherwise, were taken from all specimens examined. They were calculated to the first decimal place; the ratios were taken from holotypes only and were calculated from non-adjusted measurements. The ratios

represent the holotypes only and should be considered as indicating the relative lengths of each segment. Apart from the measurements, the descriptions are based on the holotypes. The differences occurring in paratypes are mentioned, when necessary, in the paragraph "Variation".

T a x o n o m y

Tribe Pseudoliodini Portevin, 1926

Key to the African and Madagascan genera of Pseudoliodini

1. Mesosternum with deep excavation anterior of mesosternal carina visible laterally. ..... *Dermatohomoeus* Hlisnikovský, 1963
– Mesosternum without any excavation anterior of mesosternal carina .... *Colenisia* Fauvel, 1903

Genus *Dermatohomoeus* Hlisnikovský, 1963

Dermatohomoeus Hlisnikovský, 1963: 301.
Type of genus: *Dermatohomoeus guineensis* Hlisnikovský, 1963 (original designation).

Acanthodiaprepus Hlisnikovský, 1972: 135 (**type of genus:** *Acanthodiaprepus silvaticus* Hlisnikovský, 1972 by original designation).

Key to the Madagascan species

1. Pronotum at least postero-laterally or basally transversely microstrigose. ... . 2.
– Pronotum without strigosity. ..... 5.

2(1) Antennal segments dark brown to black except segments 1 and 2 and sometimes also apex of segment 11. Aedeagus as in Fig. 4. Length 2.0–2.2 mm. ..... *Dermatohomoeus angelinii* sp.nov.
– Antennal segments 7 and 8 dark, segment 11 light, rest light or at most red-brown. ..... 3.

3 (2) Segments 1–4 of anterior tarsi combined a little longer than segment 5 without claws – ratio of segments 1–4:5 = on average 1.2 in males and females. ..... 4.
– Segments 1–4 of anterior tarsi combined distinctly longer than segment 5 without claws – ratio of segments 1–4:5 = on average 1.8 in males, 1.4 in females. Aedeagus as Fig. 3. Length 2.1–2.7 mm. .... *Dermatohomoeus annae* sp.nov.

4(3) Disc of pronotum finely and distinctly punctured; punctures separated by about 6–8 or more times their own diameter; pronotum distinctly

pubescent. Elytra with well-developed regular double rows of punctures. Aedeagus as in Figs 9, 10. Length 1.8–2.7 mm. .... *Dermatohomoeus similis* sp.nov.

– Disc of pronotum extremely finely punctate, sparsely pubescent; punctures separated by about 8–10 or more times their own diameter. Elytra with feeble double or even triple rows of punctures. Aedeagus as Fig. 8. Length 1.7–2.1 mm. ..... *Dermatohomoeus micropunctatus* sp.nov.

5(1) Dorsum reddish or dark reddish. Aedeagi as Figs 6, 7. ..... 6.

– Dorsum usually dark brown or dark chestnut coloured. Elytral intervals with punctures a little smaller than row punctures. Aedeagus as in Fig. 5. Length 1.5–1.8 mm. ..... *Dermatohomoeus bulirschi* sp.nov.

6(5) Elytra with scarcely distinguishable double rows of punctures; elytral intervals with seriate punctures of similar size and intensity to those of the double rows, making it difficult to distinguish the double rows themselves. Aedeagus as Fig. 6. Length of body 1.3–1.6 mm. .... *Dermatohomoeus ferrugineus* sp.nov.

– Elytra with more distinct double rows of punctures, interval punctures distinctly smaller than row punctures. Aedeagus as in Fig. 7. Length 1.2–1.6 mm. ..... *Dermatohomoeus madagascarensis* sp.nov.

Description of new species

Dermatohomoeus annae sp.nov. (Figs 1–3)

Type material. Holotype: male, "Madagascar Est., P.N. Ranomafana env., Sahavondrona, 3.–4.2.1995, 1150–1200 m, forêt humide, tamisages, lgt. Janák", MNHUB; paratypes: 6 males, 9 females, "Madagascar Est., P.N. Ranomafana, Vohiparara, 1100–1200 m, 21.–24.1.1993, J. Janák lgt.", 6 males, 7 females MNHUB, 2 females SC; male, "Madagascar Est., Andasibe (Périnet), Maromiza pr., 1000–1200 m, 9.2.1993, J. Janák lgt.", MNHUB; 2 males, "Madagascar Centre, Mandroka, 1300–1400 m, 7.1.1995, forêt degradée, un vallon avec un petit ruisseau", MNHUB, SC; 5 males, "Madagascar: Tamatave: Ambanizana (6.9 km NE), Ambohitsitondroina, 15°34.37'S, 50°0.46'E, 825 m, 2.xii.1993, rainforest; FMHD # 93–338, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 976 (1–50), Field Mus. Nat. Hist.", 4 males FMNH, 1 SC; 9 males, 12 females, "Madagascar: Enakara (13 km NW), Rés. Andohahela, 24°33'S, 46°48'E, 1250 m, montane rainforest, 30.xi.1992; FMHD # 92–165, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 561 (1–50), Field Mus. Nat. Hist.", 7 males and 10 females FMNH, male, female MMB and SC; 7 males, 5 females, "Madagascar: Enakara (10 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 430 m, rainforest, 24.xi. 1992; FMHD # 92–161, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 522 (1–50), Field Mus. Nat. Hist.", 6 males, 3 females FMNH, 1 male, 2 females SC; male, "Madagascar: Enakara (11 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 800 m, rainforest, 16.xi. 1992; FMHD # 92–162, unbaited pitfall trap; B.L. Fisher, # 490 (1–50), Field Mus. Nat. Hist.", FMNH; 9 males, 8 females, as previous but "17.xi.1992; FMHD # 92–163, # 492 (1–50), Winkler extraction of sifted litter (leaf mould, rotten wood)", 6 males, 7 females FMNH, 3 males, 1 female SC; female, "Madagascar: Befingotra (11.0 km WSW), Rés. Anjanaharibe-sud, 14°45'S, 49°27'E, 1565 m, montane rainforest, 16.xi.1994; FMHD #

94–58, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 1232 (1–50), Field Mus. Nat. Hist.", FMNH; 2 males, 2 females, "Madagascar: Flanarantsoa, Ambalavao (ca. 38 km S), Andringitra Res., 22°12'S, 46°58'E, 1680 m, 23.x.1993, montane rainforest; FMHD # 93–329, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 820 (1–50), Field Mus. Nat. Hist.", FMNH; 2 males, female, "Madagascar: Flanarantsoa, Ambalavao 29 km SSW, Ambositra, Ankazomivady, 20°46.6'S, 47°09.9'E, 1700 m, 7.i.1998; FMHD # 98–350, sifted litter (leaf mould, rotten wood), 50 mini-Winkler samples, disturbed montane rain-forest, B.L. Fisher, # 1590, Field Mus. Nat. Hist.; Voucher, associated with larva", FMNH; 3 females, Madagascar: Enakara (13 km NW), Rés. Andohahela, 24°33'S, 46°48'E, 1250 m, montane rainforest, 30.xi.1992; FMHD # 92–165, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 561 (1–50), Field Mus. Nat. Hist., FMNH; 2 males 3 females, "SE Madagascar, Chaînes, Anosyennes, 6 km S of Imaha, 1350–1500 m, 5.–12.ii.2004, 24°16'S, 46°57'E, P. Bulirsch lgt", 1female SC, rest BC; 3 females, the same but "P. Vonička lgt.", BC; male, 2 females, "SE Madagascar, Chaînes, Anosyennes, 7 km S of Imaha, 1400–1600 m, 8.–12.ii.2004, 24°16'S, 46°57'E, P. Vonička lgt", SC; male, "Madagascar 28.–29.12.1998, 38 km ESE of Betroka, 1600–1670 m, Kalambatritra forest, 3 km E of Andranobe, P. Bulirsch lgt.", SC; 2 males, "E. Madagascar 17.–18.4.2001, N Andringitra: Vohidray rdg. 2 km S of Ambondro, 1350–1500 m, P. Bulirsch lgt.", SC, BC; male, "E Madagascar S of Ambositra, RN km 293 by Amabatofitorahana ca 1700 m, 6.1.1999, P. Bulirsch lgt.", SC; male, 2 females, "E Madagascar, 30 km SEE of Betroka, 1400–1670 m, 17.–23.xii.1998; Vohitrosa forest, 2 km east of peak 1825 m, P. Bulirsch lgt.", male SC, rest BC; male, "E Madagascar, Mt Ambondrombe env. peak 1579, camp 5, 2.4.2001, 1500 m, Bulirsch lgt.", SC.

Description. Oval, moderately convex. Length of body 2.1–2.7 mm; in holotype 2.5 mm, head 0.2 mm, pronotum 0.7 mm, elytra 1.6 mm, antenna 0.8 mm, maximum width of head 0.6 mm, pronotum and elytra 1.5 mm. Shape of body and type of dorsal puncturation as in Fig. 1.

Dark brown; clypeus anteriorly, lateral margins of pronotum, pronotal hind angles and narrow strip along suture reddish. Legs reddish-brown, tarsi and mouthparts yellow-red, antennal segments 1–2 yellowish, segments 3–9 progressively darker to reddish-brown, segment 10 and 11 reddish-yellow. Underside chestnut, margins of mesocoxae darker.

Head. Widest at eyes. Microsculpture present on vertex and along anterior margin of clypeus. Microsculpture consisting of closely-set strigosity of elongate transverse meshes. Clypeal line feeble. Puncturation irregular, missing in some small areas between eyes. Punctures setiferous coarse, strong, deep, separated by about 1–3 times their own diameter. Paired large punctures located between eyes at about the level of their posterior margin. Setae short, fine, recumbent. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–1.5–0.8–0.8–0.6–1.2–0.5–1.0–1.0–1.3. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.5–0.5–0.5–0.5–1.0–0.8–1.5–1.7–1.7. Ratios of width : length of club antennal segments 7–11 = 0.5–1.0–0.9–1.0–0.8. Each eye dorsally about 1/7 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base distinctly emarginate laterally. Posterior angles acute, very closely rounded in dorsal view; rectangular, rounded in lateral view. Pronotum laterally with shallow oblique depression oriented medio-caudally. Ornamentation similar to that of head, well impressed on basal third as well as laterally and along anterior margin; feeble on disc. Punctures setiferous, more scattered, smaller and finer than on head, separated by about 6–8 or more times their own diameter. Punctures more densely arranged basally and laterally. Setae short, fine, recumbent but a few erect. A few larger punctures scattered throughout pronotal surface.

Scutellum. Transversely microsculptured; with individual punctures.

Elytra. Widest just beyond broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, much wider spaced than that of head or pronotum, separated by about 0.03 mm. Larger punctures arranged in longitudinal, regularly aligned, double rows. Punctures in rows separated by 2 times their own diameter transversally, 2–3 times their own diameter longitudinally. Medial double rows 1–6 located in wide, shallowly deepened, longitudinal depressions, not unlike wide striae disappearing anteriorly; thus intervals resemble flatly raised ribs. Row punctures smaller towards the front, similar to interval punctures in size. Intervals on disc with punctures half as large as punctures in rows tending to seriate in less regular single or double rows. Each puncture, large or small, is set in impressed line of strigosity. Each puncture furnished with short, fine, recumbent seta. Some erect setae sparsely distributed near lateral margins. Sutural stria confined to the apical 2/3 of the elytra. Epipleurae with sparsely arranged, fine, transverse striae.

Metasternum. With small raised plane sparsely covered medially in fine punctures bearing short, fine, recumbent hairs. Central part of metasternum with transverse microsculpture becoming regular microreticulation laterally.

Membranous wings developed.

Legs. Segment 1 of anterior tarsi widened and strongly elongate. Ratio of length of segments 1–4 combined: segment 5 (less claws) = 1.7. Results of other measurements of tarsal segments given in paragraph "Variation". Tarsal segment 1–4 with striking, dense and long hairs beneath. Anterior tibia with tarsus of the holotype as in Fig. 2. All tibiae feebly curved.

Genitalia. Male genitalia as in Fig. 3.

Variation. Paratypes of the species *Dermatohomoeus annae* sp.nov. vary in colour from unicolorous reddish to black-brown. If dark, lateral margins and hind angles of pronotum regularly lighter. Some variation has also been detected in colouring of antennae; nevertheless basal and terminal segments are lightest while the darkest is the 7th or even 8th antennal segment. The species also varies in development and strength of microsculpture of the head, from examples with profoundly microsculptured head to those microsculptured only on vertex. The number of large punctures located on head varies from 1 to 4. Microsculpture of pronotum also varies. Microsculpture on disc absent or present in traces in some paratypes. Pronotal puncturation occasionally feebler and distinctly finer than in the holotype. Pronotal depression very feeble and scarcely detectable in some of the paratypes, or divided into two oblique depressions. The new species varies markedly in the development of longitudinal elytral depressions. A minority of the paratypes lack this character altogether, the majority of them with up to 7 depressions on each elytron. Elytral rows feeble or extremely feebly expressed, scarcely detectable in 3 female paratypes from Befingotra and paratypes from Imaha. The ratio of the length of tarsal segments 1–4 combined : 5 varies between 1.6–2.2 in males (average 1.8), the same ratio varies between 1.3–1.7 in females (average 1.4). The measurements were taken from 13 males and 21 females randomly selected.

Differential diagnosis. *Dermatohomoeus annae* sp.nov. is extremely similar to *D. similis* sp.nov. in its external characters and also to *D. angelinii* sp.nov. and *D. micropunctatus* sp.nov. in possessing a microsculptured pronotum. It differs in strongly elongate dilated segment 1 of anterior tarsi in male and in the higher value of the ratio of segments 1–4 : 5 in both sexes in comparison to *D. similis* and *D. micropunctatus*. From *D. angelinii* it differs in lighter antennal segments 3–6 and 10 and 11 and in possessing a lateral pronotal depression. The male genitalia also show specific differences in all species compared.

Derivatio nominis. The new species is dedicated to my wife Anna Švecová, a specialist in mycology and the mycophilous Coleoptera.

***Dermatohomoeus angelinii* sp.nov.** (Fig. 4)

Type material. Holotype, male, "SE Madagascar: 7 km SWW of Fort Dauphin, 10–30 m, 16.ii.2004, 25°03'S, 46°55'E, dry forest, P. Bulirsch lgt.", SC; paratype, male, "SE Madagascar, Chaînes, Anosyennes, 7 km S of Imaha, 1400–1600 m, 8.–12.ii.2004, 24°16'S, 46°57'E, P. Vonička lgt", SC.

Description. Oval, moderately convex. Length 2.0–2.2 mm; in holotype 2.2 mm, head 0.3 mm, pronotum 0.6 mm, elytra 1.3 mm, antenna 0.6 mm, maximum width of head 0.5 mm, pronotum and elytra 1.3 mm.

Black-brown; anterior of clypeus and pronotal hind angles reddish. Legs reddish, anterior tarsi yellow-red, mouthparts yellow-brown, antennal segments 1–2 yellowish, segments 3–11 dark brown, segment 11 lighter at apex. Underside chestnut-coloured, margins of mesocoxae darker.

Head. Widest at eyes. Microsculpture present on some places on vertex, along anterior margin of clypeus and before clypeal line. Microsculpture consisting of closely set strigosity. Clypeal line feeble. Puncturation irregular, missing in some small areas between eyes. Punctures setiferous coarse, strong, deep, separated by about 2–3 times their own diameter. Paired large punctures located between eyes at about the level of their posterior margin. Another pair behind clypeal line. Setae short, fine, recumbent. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–1.1–0.6–0.7–0.5–0.8–0.4–0.7–0.8–1.4. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.7–0.5–0.5–0.5–0.8–0.8–1.3–1.7–1.5. Ratios of width : length of club antennal segments 7–11 = 0.6–1.3–1.0–1.1–0.6. Each eye dorsally about 1/13 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base distinctly emarginate laterally. Posterior angles acute, very closely rounded in dorsal view, rectangular, rounded in lateral view. Microsculpture feebly impressed on basal third. Traces of microsculpture present on disc, consisting of transverse short wrinkles. Punctures setiferous, more scattered, smaller and finer than on head, separated by about 6–8 or more times their own diameter. Punctures more densely arranged basally and laterally. Setae short, fine, mostly recumbent but with a few erect.

Scutellum. Smooth.

Elytra. Widest just behind broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, much wider spaced than that of head or pronotum, separated by about 0.03 mm. Larger punctures arranged in scarcely detectable longitudinal double rows. Punctures in rows separated by 3–4 times their own diameter transversally and longitudinally; more densely arranged apically. Double row 2 located in wide, extremely shallow longitudinal depression, not unlike wide stria disappearing towards the anterior. Intervals with punctures a little smaller than punctures in strial rows and themselves tending to become seriate in less regular double rows, making principal rows scarcely detectable. Each puncture is set in impressed line of strigosity. Each puncture furnished with short, fine, recumbent seta. Some erect setae sparsely distributed near lateral margins. Sutural stria confined to the apical 2/3 of the elytra. Epipleurae with sparse, fine, transverse striae.

Metasternum. With small raised plane medially sparsely covered in fine punctures bearing short, fine, recumbent hairs. Central part of metasternum with transverse microsculpture becoming regular microreticulation laterally.

Membranous wings developed.

Legs. Segment 1 of anterior tarsi dilated and strongly elongate. Ratio of length of segments 1–4 combined : segment 5 (less claws) = 1.5. Tarsal segment 1–4 with striking long, dense hairs beneath. All tibiae feebly curved.

Genitalia. Male genitalia as in Fig. 4.

Variation. Paratype red-brown, antennal segments 3–11 black.

Differential diagnosis. *Dermatohomoeus angelinii* sp.nov. is similar to *D. annae* sp.nov., *D. similis* sp.nov. and *D. micropunctatus* sp.nov. in possessing a microsculptured pronotum. From all the species compared it differs in dark brown antennal segments 3–11, sometimes also with the exception of the apex of segment 11, which is lighter. The male genitalia also show specific characters in all the species compared.

Derivatio nominis. The new species is dedicated to my friend Fernando Angelini, a great specialist in the Agathidiini.

***Dermatohomoeus bulirschi* sp.nov.** (Fig. 5)

Type material. Holotype: male, "E Madagascar, N Andringitra: Vohidray rdg. 2 km S of Ambondro, 1350–1500 m, 13.–14.4.2001, P. Bulirsch lgt.", SC; paratypes: female, the same, SC; male, "E Madagascar, 30 km SSE of Betroka, 1400–1670 m, 17.–23.xii.1998, [P.Bulirsch lgt.]", BC; male, "E Madagascar, 32 km ESE of Betroka, 1650–1700 m, Vohitrosa forest, 0.5 km S of peak 1798 m, 25.–28.12.1998, P. Bulirsch lgt.", BC; 2 males, "SE Madagascar, Chaînes, Anosyennes, 6 km S of Imaha, 1350–1500 m, 5.–12.ii.2004, 24°16'S, 46°57'E, P. Bulirsch lgt", SC, BC; male, the same but "P. Vonička lgt.", BC; 2 males, "SE Madagascar, Chaînes, Anosyennes, 7 km S of Imaha, 1400–1600 m, 8.–12.ii.2004, 24°16'S, 46°57'E, P. Vonička lgt", SC; male, "Madagascar: Befingotra (11.0 km WSW), Rés. Anjanaharibe – sud, 14°45'S, 49°27'E, 1565 m, montane rainforest, 16.xi.1994, FMHD # 94–58, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher # 1232 (1–50), Field Mus. Nat. Hist.", FMNH.

Description. Oval, moderately convex. Length of body 1.5–1.8 mm; in holotype 1.8 mm, head 0.2 mm, pronotum 0.5 mm, elytra 1.1 mm, antenna 0.5 mm, maximum width of head 0.4 mm, pronotum and elytra 1.0 mm.

Dark brown, legs and pronotal base reddish; tarsi, mouthparts and antennal segments 1–2 yellow-red, antennal segments 3–6 progressively red-brown, segments 7–11 brown. Underside reddish, margins of mesocoxae darker.

Head. Widest at eyes. Microsculpture present on vertex, consisting of closely set strigosity of elongate transverse meshes. Clypeal line distinct. Puncturation irregular between eyes. Punctures setiferous, coarse, strong, deep, separated by about 3–4 times their own diameter. Setae short, fine, recumbent. Pair of large punctures located just behind clypeal line and another pair between eyes at level of their hind margins. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.9–0.6–0.6–0.5–0.9–0.4–0.8–0.9–1.3. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.8–0.5–0.5–0.5–1.0–1.0–1.8–2.0–2.0. Ratios of width : length of club antennal segments 7–11 = 0.6–1.3–1.2–1.1–0.8. Eyes small, eye dorsally about 1/8 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base distinctly but narrowly emarginate laterally. Posterior angles acute, very closely rounded in dorsal view; obtuse, rounded in lateral view. Without microsculpture; interspaces between punctures smooth. Punctures setiferous, very fine, more scattered, smaller and finer than on head, separated by about 6–10 or more times their own diameter. Punctures more densely arranged basally and laterally. A few larger punctures scattered throughout pronotal surface. Hairs mostly recumbent but with a few erect .

Scutellum. Transversely microsculptured as on vertex.

Elytra. Widest just behind broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, much wider spaced than that of the head, separated by about 0.03 mm. Larger punctures arranged in longitudinally aligned, easily detectable double rows. Punctures in rows separated by 3 times their own diameter transversely, by about 3 times their own diameter longitudinally. Each interval on disc with punctures a little smaller than punctures in rows, separated by about 5–7 times their own diameter. Each puncture, large or small, is set in the impressed line of a strigosity. Each puncture furnished with short, fine, recumbent seta. Some erect setae sparsely distributed near lateral margins. Sutural stria present in apical 1/2 of the elytra. Epipleurae with very sparsely arranged, fine, transversal striae.

Metasternum. Central small raised plane with shallow depression located on apical half covered sparsely in fine punctures bearing fine, short, recumbent setae. Metasternum with transverse microsculpture.

Membranous wings developed.

Legs. All tibiae simply and feebly curved. Segment 1 of anterior tarsi widened and strongly elongate. Ratio of length of segments 1–4 combined : segment 5 (less claws) = 1.7. Results of other measurements of tarsal segments in paragraph “Variation”. Tarsal segment 1 with densely arranged, long hairs beneath.

Genitalia. Aedeagus as Fig. 5.

Variation. The paratype from Befingotra red-brown with brown elytra, large punctures absent behind clypeal line. Two paratypes, perhaps immature specimens from Imaha, light chestnut. Pronotal punctures denser than in the holotype, the punctures on disc

separated by about 4–5 times their own diameter. Elytral rows scarcely visible in this paratype. The ratio of the length of tarsal segments 1–4 combined: 5 varies between 1.5–1.7 in males (average 1.6), the same ratio varies around 1.2 in female. The measurements were taken from all type specimens.

Differential diagnosis. *Dermatohomoeus bulirschi* sp.nov. is similar to *D. ferrugineus* sp.nov. and *D. madagascarensis* sp.nov. in external characters, most notably the lack of pronotal microsculpture. It differs in possessing a dark dorsum that is regularly dark brown or dark chestnut while dorsum is reddish or at most pronotum reddish and elytra red-brown in *D. ferrugineus* and *D. madagascarensis*. Furthermore, male genitalia show specific characters in all the species compared.

Derivatio nominis. The new species is dedicated to one of the collectors, my friend Petr Bulirsch (Prague), a specialist in Coleoptera (Carabidae: Scaritini).

***Dermatohomoeus ferrugineus* sp.nov.** (Fig. 6)

Type material. Holotype: "Madagascar: Morondava (48 km ENE), 20°04'S, 44°39'E, 30 m, 4.–10.i.1991; tropical dry forest, litter, D.H. Olson, Field Mus. Nat. Hist.", FMNH; paratypes: 7 males, 17 females, the same data, 5 males, 14 females FMNH, female MMB rest SC; female, "Madagascar: Toliara: Sakahara (59 km NE), Vohibasia Forest, 22°28'S, 44°51'E, 780 m, tropical dry forest. 13.i.1996, FMHD # 96–201, Winkler extraction of sifted litter (leaf mould, rotten wood), Sylvian, B.L.Fisher # 1310 (1–50) Field Mus. Nat. Hist.", FMNH.

Description. Oval, moderately convex. Length of body 1.3–1.6 mm; in holotype 1.5 mm, head 0.2 mm, pronotum 0.4 mm, elytra 0.9 mm, antenna 0.5 mm, maximum width of head 0.4 mm, pronotum and elytra 0.9 mm.

Reddish, pronotal hind angles, anterior tarsi, mouthparts and antennae yellow-red, legs reddish. Underside yellow-red, meso and metacoxae as well as metasternal central raised area darker.

Head. Widest at eyes. Microsculpture present on vertex and along anterior margin of clypeus consisting of closely set strigosity of elongate transverse meshes. Clypeal line distinct. Puncturation irregular, missing in some small areas between eyes. Punctures setiferous, coarse, strong, deep, separated by about 4–7 times their own diameter; 2 larger punctures located between eyes before level of their posterior margin; another pair of large punctures just behind clypeal line. Setae short, fine, recumbent. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.9–0.5–0.5–0.4–0.8–0.4–0.6–0.8–1.3. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.8–0.5–0.5–0.5–1.0–0.8–1.5–2.0–2.0. Ratios of width: length of club antennal segments 7–11 = 0.7–1.0–1.2–1.3–0.8. Each eye dorsally about 1/6 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base distinctly emarginate laterally. Posterior angles acute, closely rounded in dorsal view; rectangular, closely rounded in lateral view. Without microsculpture; spaces between punctures smooth. Punctures very fine and very sparsely distributed, separated by about 10–15 or more times their own diameter. Puncturation denser basally and laterally. A few larger punctures bearing erect setae scattered throughout pronotal surface.

Scutellum. Transversely microsculptured.

Elytra. Widest just beyond broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, much wider spaced than that of the head, separated by about 0.03–0.04 mm. Punctures arranged in faint, scarcely detectable, longitudinal double row which fades to invisibility apically. Punctures in rows separated by 1–2 times their own diameter transversely, 3–4 times their own diameter longitudinally. Each interval on disc with punctures of similar size, however slightly smaller than punctures in rows, tending to become seriate in a single regular row. Punctures set in the impressed line of strigosity. Each puncture furnished with short, fine, recumbent seta. Some erect setae sparsely distributed near lateral margins. Sutural stria confined to the apical 5/8 of the elytra. Epipleurae with sparsely arranged fine transverse striae.

Metasternum. Central raised plane with traces of microsculpture, sparsely covered in fine punctures bearing short, fine, recumbent setae. Metasternum microreticulate laterally.

Membranous wings reduced, approximately as long as elytra.

Legs. Pro- and mesotibiae straight, metatibiae feebly curved. Segment 1 of anterior tarsi dilated and distinctly elongate. Ratio of lengths of segments 1–4 combined : segment 5 (less claws) = 1.3. Results of measurements of tarsal segments in paratype are given in the paragraph "Variation" below. Tarsal segment 1–4 with striking, densely arranged, and long hairs beneath.

Genitalia. Male genitalia in Fig. 6.

Variation. One of paratypes is darker with red-brown elytra. Another of the paratypes exhibited wings shorter than elytra (this character has not been examined in all specimens). The ratio of the length of tarsal segments 1–4 combined : 5 varies between 1.3–1.8 in males (average 1.6), the same ratio varies between 1.1–1.4 in females (average 1.2). The measurements were taken from 5 males and 9 females randomly selected.

Differential diagnosis. *Dermatohomoeus ferrugineus* sp.nov. is very similar to *D. madagascarensis* sp.nov. in lacking of pronotal microsculpture and having scarcely detectable pronotal puncturation. It differs in its interval punctures being a little smaller than the row punctures while the interval punctures are distinctly smaller than the row punctures in *D. madagascarensis*; this results in the elytral rows being less evident in *D.ferrugineus* than in *D. madagascarensis*. It is also similar to *D. bulirschi* sp.nov. in lacking pronotal microsculpture. It differs in smaller size and in a lightly coloured dorsum that is regularly dark brown or dark chestnut coloured in *D. bulirschi*. The male genitalia also show specific differences in all the species compared.

Derivatio nominis. The name of the new species is derived from the colour of dorsum.

***Dermatohomoeus madagascarensis* sp.nov.** (Fig. 7)

Type material. Holotype: male, "E Madagascar N Andringitra: Vohidray rdg. 2 km S of Ambondro 1350–1500 m, 17.–18.4.2001 P. Bulirsch lgt.", SC; paratypes: male, the same data, BC; 3 males, 9 females "Madagascar: Morondava (48 km ENE), 20°04'S, 44°39'E, 30 m, 4.–10.i.1991, tropical dry forest, litter, D.M. Olson, Field Mus. Nat. Hist.", 2 males and 7 females FMNH, rest SC; male, "Madagascar: prov. Flanarantsoa, Ambalavao

29 km SSW, Ambositra, Ankazomivady, 20°46.6'S, 47°09.9'E, 1700 m, 7.i.1998; FMHD # 98–350, sifted litter (leaf mould, rotten wood), 50 mini-Winkler samples, disturbed montane rainforest, B.L. Fisher, # 1590, Field Mus. Nat. Hist. ", FMNH.

Description. Oval, moderately convex. Length of body 1.2–1.6 mm; in holotype 1.6 mm, head 0.1 mm, pronotum 0.5 mm, elytra 1.0 mm, antenna 0.5 mm, maximum width of head 0.4 mm, pronotum and elytra 0.9 mm.

Reddish. Legs reddish-yellow, mouthparts yellow, antennal segments 1–6 yellow, club segments yellow-brown. Underside reddish, metasternum red-brown.

Head. Widest at eyes. Without microsculpture. Clypeal line distinct. Puncturation irregular, distinct. Punctures setiferous, coarse, strong, deep, separated by about 3–7 times their own diameter; setae short, fine, recumbent. Two larger punctures located between eyes beyond level of posterior margin. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.8–0.5–0.6–0.5–0.8–0.4–0.8–0.9–1.3. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.8–0.8–0.8–0.8–1.5–1.3–1.8–2.0–2.0. Ratios of width : length of club antennal segments 7–11 = 0.8–1.7–1.6–1.1–0.8. Eye dorsally about 1/8 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly, narrowing towards the front. Base emarginate laterally. Posterior angles acute, closely rounded in dorsal view; rectangular, broadly rounded in lateral view. Without microsculpture. Puncturation scarcely detectable on disc, a little more dense before base, where several larger punctures are present. Puncturation denser at slightly depressed area in hind angles; punctures separated by 4–5 times their own diameter. Punctures setiferous widely scattered, much smaller and finer than on head, separated by about 8–10 times their own diameter on disc, puncturation slightly denser toward margins. Setae recumbent but with a few erect. Some larger punctures scattered before pronotal base.

Scutellum. Transversely densely microsculptured.

Elytra. Widest just behind broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, separated by about 0.02–0.03 mm. Larger punctures arranged in less regular, longitudinally aligned, weak double rows. Punctures in rows separated by 2–3 times their own diameter transversely, by about 3–4 times their own diameter longitudinally. Intervals on disc with punctures distinctly smaller and more widely separated than punctures in rows. The interval punctures are seriate, forming an irregular single longitudinal row in each interval. Each puncture, large or small, is set in the impressed line of strigosity, furnished with a short, fine, recumbent seta. Some erect setae sparsely and irregularly distributed throughout elytral surface. Row punctures smaller towards the front, where they become similar in size to the interval punctures. Sutural stria confined to the apical 3/4 of elytra. Epipleurae with sparsely arranged, transverse, fine striae reaching from medial margin to middle of epipleurae.

Metasternum. With central raised plane sparsely covered in sparse fine punctures bearing fine, short, recumbent setae. Central part of metasternum with traces of transverse microsculpture becoming regular microreticulation laterally.

Membranous wings reduced to 2/3 elytral length.

Legs. All tibiae feebly and simply curved. Segment 1 of anterior tarsi dilated and elongate. Ratio of length of segments 1–4 combined : segment 5 (less claws) = 1.8. Results of measurements of tarsal segments of paratypes is given in the paragraph 'Variation' below. Tarsal segments 1–4 with long, striking, dense hairs beneath.

Genitalia. Male genitalia as in Fig. 7.

Variation. The paratypes of *Dermatohomoeus madagascarensis* sp.nov. are uniform in colour – reddish to dark reddish. Paratypes with transverse microsculpture on vertex; paratypes from Morondava and Ambositra with clear and distinct double elytral longitudinal rows of punctures. Some paratypes from Morondava, Andringitra and Ambositra with wings reduced, others with membranous wings fully developed. The number of large punctures located between eyes varies from 2 to 3. The ratio of the length of tarsal segments 1–4 combined : 5 varies between 1.5–1.8 in males (in average 1.7), the same ratio varies between 1.1–1.2 in females (average 1.1). The measurements were taken from 3 male and 5 female paratypes randomly selected.

Differential diagnosis. *Dermatohomoeus madagascarensis* sp.nov. is very similar to *D. ferrugineus* sp.nov. in lacking pronotal microsculpture and scarcely detectable pronotal puncturation. It differs in the intervals: the punctures are distinctly smaller than row punctures, making the elytral rows more evident. *D. madagascarensis* is also similar to *D. bulirschi* sp.nov. in lacking pronotal microsculpture. It differs in its smaller size and in the lighter coloured body, regularly dark brown or dark chestnut in *D. bulirschi*. The male genitalia also show specific differences in all the species compared.

Derivatio nominis. The name of the new species is derived from the country of origin.

***Dermatohomoeus micropunctatus* sp.nov.** (Fig. 8)

Type material. Holotype: male, "Madagascar: Enakara (11 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 800 m, rainforest, 17.xi. 1992; FMHD # 92–163, Winkler exctraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 492 (1–50), Field Mus. Nat. Hist.", FMNH; paratypes: male, the same, SC; 2 males, the same as in holotype, but "(10 km NW), 430 m 24.xi.1992, # 92/161, # 522 (1/50)", FMNH; 2 females, "Madagascar: Prov. Flanarantsoa, 29 km SSW, Ambositra, Ankazomivady, 20°46.6'S, 47°09.9'E, 1700 m, 7.i.1998, FMHD # 98–350, sifted litter (leaf mould, rotten wood), 50 mini Winkler samples; disturbed montane rainforest, B.L.Fischer # 1590 Field Mus. Nat. Hist.", FMNH, SC; male, "Madagascar: Tamatave: Ambanizana (6–9 km NE), Ambohitsitondroina, 15°34.37'S, 50°0.46'E, 825 m, 2.xii.1993, rainforest, FMHD 93/338, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher # 976 (1–50) Field Mus. Nat. Hist.", FMNH; 2 females, "E Madagascar, N Andringitra: Vohidray rdg. 2 km S of Ambondro, 17.–18.4.2001, 1350–1500 m, P. Bulirsch lgt.", SC, BC.

Description. Oval, moderately convex. Length of body 1.7–2.1 mm; in holotype 2.1 mm, head 0.2 mm, pronotum 0.7 mm, elytra 1.2 mm, antenna 0.6 mm, maximum width of head 0.5 mm, pronotum and elytra 1.2 mm.

Red-brown, suture darker. Legs light reddish-brown, tarsi and mouthparts yellow-red, antennal segments 1–6 reddish, segments 7–9 infuscate, segment 10 reddish, segment 11 reddish-yellow. Underside chestnut, margins of mesocoxae darker.

Head. Widest at eyes. Completely microsculptured. Microsculpture consisting of closely set strigosity of elongate transverse meshes. Punctation strong, irregular. Punctures setiferous, coarse, strong, deep, separated by about 2–4 times their own diameter on forehead, punctation sparser toward clypeus and vertex; 2 larger punctures located between eyes at about level of posterior margin. Setae short, fine, recumbent. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–1.0–0.6–0.6–0.6–0.8–0.4–0.9–0.8–1.2. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.6–0.6–0.6–0.8–1.0–0.8–1.8–2.0–2.0. Ratios of width : length of club antennal segments 7–11 = 0.6–1.0–1.0–1.3–0.8. Each eye dorsally about 1/6 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base feebly emarginate laterally. Posterior angles acute, very closely rounded in dorsal view; feebly obtuse, rounded in lateral view. Ornamentation similar to that of the head, well impressed. Puncturation very fine and very sparse. Seta-bearing punctures more scattered, much smaller and finer than on head, separated by about 8–10 or more times their own diameter on disc. Puncturation denser basally and laterally. Setae mostly recumbent but with a few erect. A few larger punctures scattered throughout pronotal surface.

Scutellum. Transversely microsculptured and with very fine punctures.

Elytra. Widest just beyond broadly rounded shoulders. Entirely transversely strigose. Strigosity feebly developed but distinct, much wider spaced than that of the head or pronotum, separated by about 0.01–0.02 mm. Larger punctures arranged longitudinally in feeble double or even triple rows. Punctures in rows separated by 4 times their own diameter transversely, about 3 times their own diameter longitudinally. Intervals on disc with punctures a little smaller than those in rows and tending to seriate in irregular single or double rows. Each puncture, large or small, bearing seta, is set in the impressed line of strigosity. Setae short, fine, recumbent. Some sparse erect setae distributed near lateral margins. Sutural stria confined to the apical 1/2 of the elytra. Epipleurae with sparsely arranged fine transverse striae.

Metasternum. With small raised plane medially sparsely covered in fine punctures bearing short, fine, recumbent setae. Central part of metasternum with irregular transverse microsculpture becoming regular microreticulation laterally. Metasternum with several punctures bearing setae.

Legs. Segment 1 of anterior tarsi dilated and very elongate. Ratio of lengths of segments 1–4 combined : segment 5 (less claws) = 1.2. Results of measurements of tarsal segments of paratypes given in 'Variation' paragraph below. Tarsal segment 1 dilated with striking, densely arranged and long hairs beneath. All tibiae feebly and simply curved.

Genitalia. Male genitalia Fig. 8.

Variation. The paratypes of *Dermatohomoeus micropunctatus* sp.nov. vary in colour of antennae – some paratypes with unicolorous yellow-red antennal segments. They vary also in strength and development of the principal elytral rows, which are quite indistinct

in a female paratype taken from the type locality. The ratio of the length of tarsal segments 1–4 combined : 5 varies between 1.2–1.3 in males (in average 1.2), the same ratio varies between 1.1–1.4 in females (average 1.2). The measurements were taken from 3 males and 4 females randomly selected. Membranous wings developed in some paratypes, not examined in all the specimens.

Differential diagnosis. *D. micropunctatus* is similar to *D. similis* sp.nov., *D. angelinii* sp.nov. and *D. annae* sp.nov. in possessing a microsculptured pronotum. From *D. similis* it differs in average smaller size, lighter colour, in feeble double or even triple rows on elytra; these are regularly double and distinct in *D. similis*. *D. micropunctatus* differs from *D. annae* in a much less elongate 1st segment of anterior tarsi in male and by lower value of the ratio of length of segment 1–4 combined : 5 segment of anterior tarsi. *D. micropunctatus* differs from *D. angelinii* by lighter antennae. Male genitalia are also quite different in the species compared.

Derivatio nominis. The name of the new species indicates the type of pronotal punctation.

***Dermatohomoeus similis* sp.nov.** (Figs 9–11)

Type material. Holotype: male, "Madagascar Est., 1100–1200 m, P.N. Ranomafana, Vohiparara, 21.–24.1.1998, 1100–1200 m, J.Janák lgt.", MNHUB; paratypes: 11 males, 6 females, same locality and data, 9 males, 5 females MNHUB, 2 males, female SC; 4 males, female, "Madagascar est, Anosibe, Fody pr., Moramanga, 31.1.–2.2.1993, J. Janák lgt.", 3 males, female MNHUB, male SC; male, female, "Madagascar: Enakara (11 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 800 m, rainforest, 17.xi. 1992; FMHD # 92–163, Winkler extraction of sifted litter (leaf mould, rotten wood); B.L. Fisher, # 492(1–50), Field Mus. Nat. Hist.", FMNH; male, "Madagascar, 38 km ESE of Betroka, 1600–1670 m, Kalambatritra forest, 3 km E of Andranobe, 28.–29.12.1998, P. Bulirsch lgt.", SC; female "E Madagascar, N Andringitra: Vohidray rdg. 2 km S of Ambondro 1350–1500 m 17.–18.4.2001 P. Bulirsch lgt.", BC; male, female, "SE Madagascar: Chaines, Anosyennes, 6 km S of Imaha, 1350–1500 m, 5.–12.2.2004, 24°16'S, 46°57'E, P. Bulirsch lgt.", SC.

Description. Oval, moderately convex. Length of body 1.8–2.7 mm; in holotype 2.1 mm, head 0.2 mm, pronotum 0.6 mm, elytra 1.3 mm, antenna 0.7 mm, maximum width of head 0.5 mm, pronotum and elytra 1.2 mm.

Brown: head, lateral margins of pronotum and pronotal hind angles red-brown. Legs reddish, tarsi and mouthparts yellow-red, antennal segments 1–2 yellowish, segments 3–9 gradually darker to reddish-brown, segment 10 lighter, 11th segment reddish-yellow. Underside red-brown, margins of mesocoxae darker.

Head. Widest at eyes. Microsculpture present on vertex consisting of closely set strigosity of elongate transverse meshes. Clypeal line distinct. Puncturation irregular, distinct. Punctures setiferous, coarse, strong, deep, separated by about 1–2 times their own diameter; 2 larger punctures located between eyes at level of posterior margin. Setae short, fine, recumbent. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–1.0–0.6–0.6–0.6–1.1–0.4–0.8–0.8–1.4. Ratios of width of antennal segments 2–11(2nd segment equal to 1.0) = 1.0–0.6–0.6–0.6–0.5–1.4–1.2–2.2–2.4–2.2. Ratios of width : length of club antennal segments 7–11 = 0.6–1.5–1.4–1.5–0.8. Eyes small, eye dorsally about 1/10 as wide as head between eyes.

Pronotum. Widest at base with lateral margins regularly roundly narrowed towards the front. Base distinctly emarginate laterally. Posterior angles acute, closely rounded in dorsal view; rectangular, rounded in lateral view. Pronotum laterally with shallow oblique depression oriented medio-caudally. Ornamentation similar to that of head; developed in traces on disc. Punctures setiferous, more scattered, smaller and finer than on head, separated by about 10 or more times their own diameter. Punctures much denser basally and laterally, where they are separated by about 2–4 times their own diameter. Setae mainly recumbent but a few erect. A few larger punctures scattered before pronotal base.

Scutellum. Transversely microsculptured, with some punctures.

Elytra. Widest just beyond broadly rounded shoulders. Entirely transversely strigose. Strigosity well developed, much wider spaced than that of head or pronotum, separated by about 0.02–0.03 mm. Larger punctures arranged in longitudinal, regularly aligned but feebly expressed double rows. Punctures in rows separated by 2 times their own diameter transversely, by 3 times their own diameter longitudinally. Medial double rows 1–3 located in wide, very shallowly deepened although indistinctly bordered longitudinal depressions, not unlike wide striae, which disappear in the basal half; thus relevant intervals resemble flatly raised ribs on apical half of elytra. Row punctures towards the anterior smaller, similar to interval punctures in size. Intervals on disc with punctures distinctly smaller than punctures in rows and separated by about 4 times their own diameter. Each puncture, large or small, is set in the impressed line of strigosity, bearing short, fine, recumbent seta. Some erect setae occasionally distributed near lateral margins. Sutural stria confined to the apical 2/3 of the elytra. Epipleurae with sparse, fine transverse striae.

Metasternum. With small raised plane medially sparsely covered in sparse fine punctures bearing fine, short, recumbent setae. Central part of metasternum with transverse microsculpture becoming regular microreticulation laterally.

Legs. Segment 1 of anterior tarsi dilated and a little longer than wide. Ratio of lengths of segments 1–4 combined : segment 5 (less claws) = 1.3. Results of measurements of tarsal segments of paratypes given in paragraph ‘Variation’ below. Tarsal segment 1–4 with striking, densely arranged and long hairs beneath. Anterior tibia with tarsus as Fig. 11. All tibiae weakly and simply curved.

Genitalia. Male genitalia as in Figs. 9, 10.

Variation. Paratypes of the species *Dermatohomoeus similis* sp.nov. vary in colour from unicolorous reddish to black-brown with clypeus and apex of elytra reddish. Margins and hind angles of pronotum regularly lighter. Pronotal depression very feeble and scarcely detectable in some of the paratypes or divided into two oblique depressions. It also varies in strength and development of microscuplture from samples that have a profoundly microsculptured head to those microsculptured only on vertex. Also microsculpture of pronotum varies; it can be absent from disc, visible as traces, or entirely covering the pronotum. Membranous wings developed in some specimens, not examined in all types.

The new species varies strongly in the development of the longitudinal elytral depressions. A minority of the paratypes lack this character completely, the majority exhibit up to 6 depressions on elytra on each elytron. The individual raised intervals

reached the base in some of paratypes. Feeble variation has been detected in the coloration of the antennae; nevertheless basal and terminal segments are lightest while the darkest one is the 7th or even the 8th antennal segment. The ratio of the length of tarsal segments 1–4 combined : 5 varies between 1.1–1.4 in males (in average 1.2), the same ratio varies between 1.1–1.2 in females (in average 1.2). The measurements were taken from the all paratypes.

Differential diagnosis. *Dermatohomoeus similis* sp.nov. is extremely similar to *D. annae* sp.nov. in its external characters. It differs in the much less elongate segment 1 of anterior tarsi in male and in the lower value of the ratio of length of segments 1–4 : 5 in both sexes in comparison to *D. annae*. *D. similis* is also similar to *D. micropunctatus* sp.nov. and *D. angelinii* sp.nov. by way of the microsculptured pronotum. It differs in regularly developed elytral double rows; that are feebly expressed and irregular, double or triple or even scarcely detectable in both species mentioned. The male genitalia also show specific differences in all species compared.

Derivatio nominis. The name of the new species indicates the similarity to *D. annae* sp.n.

Tribe Scotocryptini Reitter, 1884

Key to the African and Madagascan genera of tribe Scotocryptini

1. Antennae slender, with distinctly elongate club segments. Africa. .... *Popeus* Hlisnikovský, 1972
– Antennal club segments transverse, or at most quadrate. ... 2.

2(1) At least midfemora stout or widened with dorsal tibial lines. ..... 3.
– All femora of usual shape. Tibiae slender. Antennal club large, strikingly widened. Last antennal segments more than 1.5 times as wide as long. Madagascar. ..... *Pseudocyrtusiola* gen.nov.

3(2) All tibiae slender, subparallel. Africa, Madagascar. .... *Termitoglobus* Reichensperger, 1915
– At least mid-tibiae widened. Africa, Madagascar. .... *Cyrtusiola* Hlisnikovský, 1974

Genus *Cyrtusiola* Hlisnikovský, 1974

Cyrtusiola Hlisnikovský, 1974: 773.
Type of genus: *Cyrtusiola punctatipennis* Hlisnikovský, 1974 (original designation).

Key to the species

1. Dorsum without microsculpture, punctured. ..... 2.
– Entire dorsum microsculptured. Legs as in Figs 44–47, aedeagus as in Figs 42, 43. Length 1.6 mm. Madagascar. ..... *Cyrtusiola reticulata* sp.nov.

2(1) Middle femora markedly convex at posterior margin. ..... 3.

– Middle femora straight or concave at posterior margin. Length 1.4–1.5 mm. Rwanda. ..... *Cyrtusiola hansi* Daffner, 1990

3(2) Elytra strongly and densely punctured, punctures spaced by their own diameter. Length 1.6 mm. Rhodesia. .... *Cyrtusiola punctatipennis* Hlisnikovský, 1974

– Elytra feebly and sparsely punctured or with rows of punctures. ..... 4.

4(3) Eyes normal, not reduced. ..... 5.

– Eyes extremely small or even strongly reduced. ..... 8.

5(4) Posterior angles of pronotum almost pointed in lateral view. Apex of aedeagus truncate. Length 1.2–1.4 mm. Madagascar. .... *Cyrtusiola truncata* Švec, 1996

– Posterior angles of pronotum closely or even broadly rounded in lateral view. Apex of aedeagus not truncate. ..... 6.

6(5) Mid-tibia widened, more than twice as long as wide in male; more than three times as long as wide in female. Aedeagus broadly rounded apically with feebly pointed tip. ..... 7.

– Mid-tibia extremely widened, 1.5 as long as wide in male, about 2.4 as long as wide in female. Aedeagus as in Figs 48, 49. Length 1.4–1.5 mm. Madagascar. ..... C*yrtusiola tibialis* sp.nov.

7(6) Dorsum brown to dark chestnut. Aedeagus as in Figs 28, 29, broadly rounded at apex. Length 1.2–1.6 mm. Madagascar. .... *Cyrtusiola brunnea* sp.nov.

– Dorsum reddish-yellow. Aedeagus subacute at tip. Length 1.6 mm. Madagascar. ..... *Cyrtusiola convexa* Švec, 1996

8(4) Eyes with detectable facets. Mid- and hind femora strongly toothed on posterior margin in male; mid tibia 3.3 times as long as wide in female (Figs 38–41). Aedeagus as in Fig. 36, 37. Length 1.0–1.3 mm. Madagascar. ..... *Cyrtusiola dentata* sp.nov.

– Eyes strongly reduced without detectable facets. Mid- and hind femora strongly convex on posterior margin in both sexes; 2.3 as long as wide in female (Figs 13–16). Aedeagus as in Figs 17, 22. Length 1.3–1.5 mm. Madagascar. ..... *Cyrtusiola annophthalma* sp.nov.

Description of new species

***Cyrtusiola anophthalma* sp.nov.** (Figs 12–17, 22, 35)

Type material. Holotype: male, "Madagascar, Befingotra (11.0 km WSW), Rés. Anjanaharibe-sud, 14°45'S, 49°27'E, 1565 m, montane rainforest, 16.xi.1994; FMHD # 94–58, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 1232 (1–50), Field Mus. Nat. Hist.", FMHN; paratype: female, the same as in holotype, FMHN.

Description. Oval, strongly convex. Length 1.3–1.5 mm; in holotype 1.5 mm, head 0.3 mm, pronotum 0.5 mm, elytra 0.7 mm, antenna 0.4 mm, maximum width of head 0.6 mm, pronotum 0.9, elytra 1.0 mm.

Dorsum, mouthparts, antennae and legs yellow-red. Underside yellow-red, mesosternal process and margins of metasternum darker.

Head. Widest beyond eyes. Without microsculpture, punctured. Punctures separated by 4–5 times their own diameter. Each puncture furnished with recumbent seta. Two punctures located on vertex and another pair medially approximated to each eye. Eyes strongly reduced, hardly visible in dorsal (Fig 35) and lateral view, not detectable from ventral view; facets not detected. Ratios of length of antennal segments 2–11 (2nd segment equals 1.0) = 1.0–0.5–0.4–0.4–0.3–0.5–0.2–0.5–0.5–0.8. The same ratios of width of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.6–0.4–0.6–0.8–1.6–0.8–2.0–2.0–1.8. Ratios of width : length of club antennal segments 7–11 = 1.6–2.0–2.0–2.0–1.0. Antenna as in Fig. 12.

Pronotum. Broadest at base. Without microsculpture, punctured. Puncturation very fine; punctures sparsely distributed, separated by 8–10 times their own diameter. Each puncture furnished with recumbent seta. A few larger punctures beyond anterior margin and before base. Base not margined. Hind angles blunt, closely rounded in dorsal view; rectangular, widely rounded in lateral view. Viewed dorsally, lateral margin slightly rounded up to mid-length then more strongly rounded; viewed laterally straight from base up to mid-length then rounded toward anterior angles.

Scutellum smooth without either microsculpture or punctures.

Elytra. Broadest at shoulders. Without microsculpture, punctured. Without striae or rows of punctures. Punctures similar to those on pronotum; each puncture marked by short fine recumbent seta.

Membranous wings developed.

Metasternum. Flat. Microsculpture transverse medially, longitudinally oriented laterally.

Legs. Tarsal segment 1 strongly, segment 2 feebly dilated in male, both with bush of hairs beneath. Mid-femora strongly widened to an extraordinary extent, strongly rounded on posterior margin in both sexes, hind tibia strongly widened in male. Mid-tibia extremely widened in both sexes; widest at apical third of their length, about 2.0 times as long as wide in male, about 2.2 as long as wide in female (Figs 13, 15). Hind tibia moderately widened in both sexes (Figs 14, 16).

Genitalia. Male genitalia as in Figs 17, 22.

Differential diagnosis. *Cyrtusiola anophthalma* sp.nov. differs from the other known species of the genus by the following combination of characters: strongly reduced eyes lacking detectable facets, rounded posterior margin of mid-femora in both sexes and strongly widened mid-tibia in both sexes. The shape of the aedeagus also shows specific characters.

Derivatio nominis. The name is derived from the most striking character of new species – the extremely reduced eyes.

Cyrtusiola brunnea sp.nov. (Figs 18, 23, 27–34)

Type material. Holotype: male, "Madagascar: Enakara (13 km NW), Rés. Andohahela, 24°33'S, 46°48'E, 1250 m, montane rainforest, 30.xi.1992; FMHD # 92–165, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 561 (1–50), Field Mus. Nat. Hist.", FMHN; paratypes: 5 males, 4 females, same data, 4 males, 3 females FMNH, male, female SC; male, "Madagascar Enakara (10 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 430 m, rainforest, 24.xi.1992; FMHD #92–161, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 522 (1–50), Field Mus. Nat. Hist.", FMHN.

Description. Oval, strongly convex. Length of body 1.2–1.6 mm; in holotype 1.3 mm, head 0.1 mm, pronotum 0.4 mm, elytra 0.8 mm, antenna 0.4 mm, maximum width of head 0.5 mm, pronotum 0.7, elytra 0.8 mm. Shape of body as in Fig. 27.

Brown; mouthparts and antennal segments 1–5 yellow, remainder of antennae yellow-brown, legs red-yellow, lateral and basal margin of pronotum as well as clypeus, strip along anterior part of elytral suture and elytral apex red-brown. Underside reddish, margins of metasternum darker.

Head. Broadest at hind margin of eyes. Without microsculpture, punctured. Puncturation very feeble and sparse, punctures small, separated by 8–10 or more times their own diameter. Each puncture furnished with recumbent seta. Several larger punctures interposed. Eyes normal in dorsal view, each eye 1/9 as wide as space between eyes. From lateral view eyes rounded, composed of distinctly detectable facets. Ratios of length of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.5–0.4–0.4–0.5–0.8–0.3–0.6–0.6–0.9. Ratios of width of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.8–0.5–0.5–0.8–1.4–1.3–2.3–2.5–2.3. Ratios of width : length of club antennal segments 7–11 = 1.2–2.5–1.8–2.0–1.3.

Pronotum. Widest at base. Without microsculpture, punctured. Puncturation finer than on head, punctures fine and scattered, separated by more than 10 times their own diameter. Each puncture furnished with recumbent seta. Base not margined. Hind angles feebly blunt acute in dorsal view, very blunt closely rounded in lateral view. Lateral margin regularly rounded from base toward anterior angles in dorsal as well as in lateral view.

Scutellum smooth.

Elytra. Broadest in basal third. Without microsculpture, punctured. Without striae or rows of punctures. Punctures even smaller, finer and more dispersed than on pronotum; each puncture marked by short, fine, recumbent seta. Elytra with individual erect setae near lateral margins.

Metasternum. Very flatly concave. Microsculpture absent medially, consisting of transverse meshes toward lateral sides and longitudinally oriented on outermost lateral part.

Membranous wings developed.

Legs. Tarsal segments 1 and 2 very feebly dilated in male. Mid-tibiae distinctly widened; widest at apical third of their length, 2.6 times as long as wide. Hind tibia slender widest at apical third, 3.6 as long as wide in male. Mid- as well as hind tibiae slender in females.

Medial and posterior legs in male and female as in Figs 30–32, 34.

Genitalia. Male genitalia as in Fig. 18, 23, 28, 29, spermatheca as in Fig. 33.

Variation. Some of the paratypes with antennae entirely yellow-brown or yellow with antennal club reddish. Coloration of dorsum varies from specimens with dark chestnut pronotum and brown basal third of elytra with dark reddish-brown elytral suture, shoulders, margins and apical two-thirds of elytra to specimens with brown dorsum with lighter clypeus, pronotal lateral margins and base as well anterior part of suture. Suture entirely lighter than elytra in some paratypes.

Differential diagnosis. *Cyrtusiola brunnea* sp.n. is similar to *C. convexa* Švec, 1996 in the type of dorsal puncturation. It differs in the dark colour of the dorsum and mid-tibia widest at distal third while mid-tibia are widest just before apex in *C. convexa*. The shape of the aedeagus also differs.

Derivatio nominis. The name of the species indicates the colour of the dorsum.

Cyrtusiola dentata sp.nov. (Figs 19, 24, 36–41)

Type material. Holotype, male, "Madagascar: Enakara (11 km NW), Rés. Andohahela, 24°34'S, 46°49'E, 800 m, rainforest, 17.xi.1992, FMHD # 92–163, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 492 (1–50), Field Mus. Nat. Hist.", FMHN; 2 males, 6 females the same as holotype, male, 5 females FMHN, male, female SC; female, as in holotype but "16.xi.1992, FMHD # 92–162, unbaited pitfall trap, B.L. Fisher # 490 (1–50)", FMHN; female, as in holotype, but "Enakara (10 km NW), 430 m, rainforest, 24.xi.1992, FMHD # 92–161, B.L. Fisher # 522 (1–50)", FMHN; 2 males, 3 females, "Madagascar: Enakara (12 km NW), Rés. Andohahela, 24°33'S, 46°48'E, 1250 m, montane rainforest, 30.xi.1992; FMHD # 92–115, Winkler extraction of sifted litter (leaf mould, rotten wood), B.L. Fisher, # 561 (1–50), Field Mus. Nat. Hist.", male, 3 females FMHN, male SC; 2 females, "Madagascar: Eminiminy (6 km SSW), Rés. Andohahela, 24°44'S, 46°48'E, 330 m, rainforest, 4.ii.1993, sifted litter (leaf mould, rotten wood), P.S. Ward, # 11820, Field Mus. Nat. Hist.", FMHN.

Description. Oval. Length of body 1.0–1.3 mm, in holotype 1.2 mm, head 0.1 mm, pronotum 0.4 mm, elytra 0.7 mm, antenna 0.3 mm, maximum width of head 0.5 mm, pronotum 0.7 mm, elytra 0.8 mm.

Reddish, antennal segments up to 6th yellow with yellow-brown club, legs red-yellow; underside reddish, margins of metasternum darker.

Head. Widest at eyes. Without microsculpture, punctured. Punctures separated by 8–12 or more times their own diameter. Each puncture furnished with short, recumbent seta. Eyes small in dorsal view, each eye small, 1/28 as wide as space between eyes, facets distinctly detectable. One large puncture located near median margin of each eye

anteriorly. Ratios of length of antennal segments 2–11 (2nd segment equals 1.0) = 1.0–0.3–0.2–0.2–0.3–0.6–0.2–0.5–0.5–0.8. Ratios of width of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.5–0.5–0.5–0.8–1.3–1.0–1.5–2.0–2.0. Ratios of width : length of club antennal segments 7–11 = 0.8–2.0–1.2–1.6–1.0.

Pronotum. Widest at base. Without microsculpture, punctured. Punctures finer than those on head, very fine and scarce, separated by 12–15 or more times their own diameter. Punctures furnished with short recumbent seta. Hind angles rectangular, closely rounded in dorsal view; obtuse and widely rounded in lateral view. Lateral margins rounded from base toward anterior angles in both dorsal and lateral view.

Scutellum smooth.

Elytra. Broadest in basal third. Without microsculpture, punctured. Without striae or rows of punctures. Punctures even smaller, finer and sparser than on pronotum; each puncture marked by short, fine, recumbent seta. Punctures disappearing toward elytral base.

Metasternum. Flattened. Microsculpture consisting of transverse mesh medially, oriented longitudinally toward the sides.

Membranous wings developed.

Legs. Tarsal segment 1 very feebly dilated in male. Mid-tibia in both sexes distinctly widened; widest at apical fourth of their length, about 2.3 times as long as wide. Hind tibia slender in male, feebly widened in female. Mid- as well as hind tibiae strongly widened in both sexes; toothed at hind margin in male, broadly rounded in female. Shape of medial and posterior legs in male and female as Figs 38–41.

Genitalia. Male genitalia as Figs. 19, 24, 36, 37.

Variation. Colouring of antennae variable from yellowish segments 1–6 with reddish club to entirely unicolorous brown-yellow antennae. Coloration of dorsum varies from reddish to reddish with dark pronotal base and elytral suture. Some paratypes with two large punctures at each eye. Two paratypes with denser pronotal puncturation, the punctures separated by about 8–10 times their own diameter. One paratype from the type locality with membranous wings strongly reduced.

Derivatio nominis. The name of the new species refers to the toothed male femora.

Differential diagnosis. *Cyrtusiola dentata* sp.nov. is similar to *C. anophthalma* sp.nov. in possessing reduced eyes, it differs in having the midfemora strongly toothed on the posterior margin in male and in less strongly widened mid-tibia in both sexes. Eyes with visible facets in *C. dentata* while eyes reduced without facets in *C. annophthalma*. The shape of the aedeagus also shows specific characters.

Cyrtusiola reticulata sp.nov. (Figs 20, 25, 42–47)

Type material. Holotype, male, "Madagascar: Stn. Forestiére Manjaka-Tompo, 19°21'S, 47°19'E, 1600 m, montane rainforest, 20.ii.1993 sifted litter (leaf mould, rotten wood), P.S. Ward #11971, Field Mus. Nat. Hist.", FMNH; paratypes, male, 3 females the same as in holotype, male SC, females FMNH.

Description. Oval. Length of body 1.6 mm, head in holotype 0.1 mm, pronotum 0.4 mm, elytra 1.1 mm, antenna 0.4 mm, maximum width of head 0.6 mm, pronotum 0.9 mm, elytra 1.1 mm.

Brown, clypeus and pronotal margins reddish; antennal segments up to 6th and segment 11 yellow-red, segments 7–10 brown-red. Legs yellow-red; underside red-brown.

Head. Broadest at eyes. With traces of microsculpture, punctured. Punctures separated by 4–10 or more times their own diameter. Each puncture furnished with short recumbent seta. Eyes well developed in dorsal view, each eye 1/9 as wide as space between eyes, facets distinct. Ratios of length of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.4–0.4–0.5–0.5–0.6–0.2–0.6–0.6–1.0. Ratios of width of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.6–0.4–0.6–0.4–1.2–1.0–1.8– 2.0–2.0. Ratios of width : length of club antennal segments 7–11 = 0.8–2.5–1.5–1.7–1.0.

Pronotum. Widest at base. Distinctly reticulate, punctured. Punctures finer and sparser than those on head, separated by 10–15 or more times their own diameter. Punctures furnished with short, recumbent seta. Hind angles acute pointed in dorsal view, obtuse widely rounded in lateral view. Lateral margins rounded from base toward anterior angles both in dorsal and lateral view.

Scutellum smooth.

Elytra. Broadest before mid-length. Reticulation weaker than on pronotum, punctured. Without striae or rows of punctures. Punctures even smaller, finer and sparser than on pronotum; each puncture marked by short, fine recumbent seta.

Metasternum. Flattened. With traces of microsculpture, with recumbent setae medially.

Membranous wings developed.

Legs. Tarsal segment 1 distinctly dilated in male with brush of long hairs ventrally. Mid-tibia in male distinctly, in female moderately, widened; widest at apical fourth in male and in apical fifth in female respectively. Mid-tibia approximately 2.2 times as long as wide in male while 3.1 times as long as wide in female. Hind tibia very weakly widened in both sexes. Shape of medial and posterior legs in male and female as in Figs 44–47.

Genitalia. Male genitalia as in Figs 20, 25, 42, 43.

Variation. Colouring of antennae rather stable with red-brown antennal segment 11 in some of paratypes. Microsculpture distinct on head in some paratypes. Apical half of elytra more densely punctate and setose than the basal half with some erect setae in all female paratypes.

Differential diagnosis. *Cyrtusiola reticulata* sp.nov. differs from all known species of *Cyrtusiola* in having a reticulate dorsum. The male genitalia also show specific characters.

Derivatio nominis. The name of the new species is derived from the microsculpture of the dorsal surface.

***Cyrtusiola tibialis* sp.nov.** (Figs 21, 26, 48–53)

Type material. Holotype, male, "Madagascar: Prov. Flanarantsoa, 29 km SSW Ambositra, Ankazomivady, 20°46.6'S, 47°09.9'E, 1700 m, 7.i.1998; FMHD # 98–350, sifted litter (leaf mould, rotten wood), 50 mini-Winkler samples, disturbed montane rain-forest, B.L. Fisher, # 1590, Field Mus. Nat. Hist.", FMNH; paratypes, female, the same, SC; female, the same as holotype with notice " voucher, associated with larva", FMNH.

Description. Oval. Length of body 1.4–1.5 mm, in holotype 1.5 mm, head 0.1 mm, pronotum 0.5 mm, elytra 0.9 mm, antenna 0.4 mm, maximum width of head 0.6 mm, pronotum 0.8 mm, elytra 1.1 mm.

Dark brown, clypeus reddish, margins of pronotum yellow-brown, mouthparts yellow-red, antennal segments up to 6th lightly yellow-brown, antennal club brown with reddish ultimate segment. Legs brown-red; underside brown.

Head. Broadest at eyes. Without microsculpture, punctured. Punctures separated by 2–4 times their own diameter. Each puncture furnished with a short recumbent seta. Eyes normal in dorsal view, each eye 1/9 as wide as space between eyes, facets distinct. Two large punctures located near median margin of each eye. Ratios of length of antennal segments 2–11 (2nd segment equals 1.0) = 1.0–0.2–0.2–0.2–0.3–0.6–0.2–0.6–0.6–0.8. Ratios of width of antennal segments 2–11 (2nd segment equals 1.0) = 1.0–0.8–0.6–0.6–0.6–1.6–1.0–2.0–2.2–1.8. Ratios of width : length of club antennal segments 7–11 = 1.3–2.5–1.7–1.8–1.1.

Pronotum. Widest at base. Without microsculpture, punctured. Punctures separated by 3–4 times their own diameter with numerous large punctures interposed. Punctures furnished with short recumbent seta. Hind angles obtuse closely rounded in dorsal view, obtuse widely rounded in lateral view. Lateral margins roundly tapered from base toward anterior angles in dorsal view; straight at basal third then regularly rounded in lateral view.

Scutellum smooth.

Elytra. Broadest in basal third. Without microsculpture, punctured. With traces of irregular double rows of punctures. Row punctures strongly and distinctly developed, separated by 2–5 times their own diameter, punctures located in intervals smaller, similar to those on pronotum.

Some punctures furnished with a short, fine, recumbent seta.

Metasternum. Flattened; with shallow depression medio-basally. Depression feebly transversely microsculptured. Rest of metasternum microsculptured, microsculpture consisting of oblique longitudinal mesh with several recumbent hairs laterally.

Membranous wings developed.

Legs. Tarsal segment 1 distinctly dilated in male; 1st and 2nd segments with bush of hairs beneath. Mid-tibia in both sexes unusually strongly widened; widest just before apex, approximately 1.5 times as long as wide in male; 2.4 times as long as wide, widest at apical third in female. Mid-femur widened, obtusely toothed in male. Hind femora stout, of usual shape; hind tibia moderately widened apically in both sexes. Shape of medial and posterior legs in male and female as in Figs 50–53.

Genitalia. Male genitalia as in Figs. 21, 26, 48, 49.

Variation. Both female paratypes lighter coloured from yellow-red dorsum to brown with pronotum and elytral base red-brown and with reddish antennal club. One of the paratypes with more sparsely punctate pronotum; punctures on pronotum separated by about 10 or more times their own diameter.

Derivatio nominis. The name of the new species indicates the extremely widened male mid-tibiae.

Differential diagnosis. *Cyrtusiola tibialis* sp.nov. differs from species known to date in the combination of these characters: two sizes of punctures on the pronotum, double elytral striae and in male extremely widened mid-tibia. The aedeagus also shows specific characters.

Genus *Pseudocyrtusiola* gen.nov. (Figs 54, 55, 57–69)

Type species: *Pseudocyrtusiola clavigera* sp.nov.

Description. Body small convex, broadly oval (Fig. 54). Surface including elytra distinctly and densely setose.

Head. Broad, transverse. Punctate; punctures furnished with a short single seta. Eyes flatly convex, large. Facets fine. Ventral part of eyes as large as dorsal part. Clypeus rounded, neither emarginate nor prominent, separated by arcuate clypeal line. Head with long, slightly convergent antennal grooves beneath. Antennal grooves able to receive 5 basal antennal segments. Wide genae parting by narrow gula. Gula distinctly narrower than ventral portion of eyes. Gular suturae sinuate (Fig. 59) caudally shortened. Labrum wide without distinct characters. Mandibles short, stout with simple apex (Figs 61, 62). Right mandible with obtuse tooth at distal quarter of medial margin. Mola area with distinct furrows. Maxilla with 3-segmented palpus. Segments distinctly longer than wide. Galea and lacinia approximately equal in length and width (Fig. 63) Labium as Fig. 65. Antennae articulated beneath antero-lateral margin of head; very stout and short (Fig. 64) distinctly shorter than width of head. Antennal club 5-segmented. Club making up half antennal length. Club segments including terminal segment strongly widened. All club segments distinctly broader than long. Antennal segment 8 short but distinctly visible. Each of antennal segments 7, 9 and 10 with gutter with vesicle.

Pronotum. Almost twice as wide as long; roundly tapered from base toward anterior angles. Basally and anteriorly not margined, laterally with weak narrow margin.

Prosternum. With a narrow keel between strongly approximate coxae. Keel lower than coxae.

Scutellum. Of usual triangular shape and size.

Elytra. Oval, without distinct shoulders. Elytral suture raised, entirely margined up to scutellum. With rows of punctures. Pubescent. Epipleurae long, extending to apex of elytra.

Mesosternum. With thin, very low, steeply depressed carina. Carina as Fig. 55, less elevated than in *Cyrtusiola* (Fig. 56). Mesocoxae oblique (Fig. 60).

Metasternum. Approximately as long as abdomen, flat, with anterior process extending between mesocoxae. Without striking characters.

Legs. Femora of usual shape, narrow, without specific characters. All tibiae narrow, subparallel. Anterior tibiae with spine latero-apically, with long, strong setae along lateral margin. Median and posterior tibiae with spines laterally and apically. Posterior tibiae with strong setae medially. Median legs in male and female as in Figs 68, 69. Tarsal formula 3–3–3.

Abdomen. With 5 visible sternites without particularly specific characters. Visible sternite 1 with transverse carina typical of tribe Scotocryptini. Carina not reaching lateral margins.

Male genitalia. Median lobe simple with traces of parameres at its base. Internal sac developed. Aedeagus as Figs 57, 58. Spermatheca crescent-shaped (Fig. 66) ovipositor modified as Fig. 67.

Differential diagnosis. The monotypic genus. *Pseudocyrtusiola* gen.nov. is related to *Cyrtusiola* Hlisnikovský, 1972 and *Termitoglobus* Reichensperger, 1915. It differs mainly in its slender femora without femoral grooves and slim tibiae. Carina in mesosternum less elevated than in the both related genera, especially in *Cyrtusiola*.

Derivatio nominis. Gender: feminine. The name is derived from the similarity of the new genus to *Cyrtusiola*.

***Pseudocyrtusiola clavigera* sp.nov.** (Figs 54, 55, 57–69)

Type material. Holotype: male, "Mt d'Ambre, xii-48 RP [handwritten], Inst. Scient. Madagascar [printed]", HNHM; 3 females, the same, 2 specimens HNHM, rest SC.

Description. Oval, convex. Length 2.0 mm. Measurements in holotype: length of head 0.2 mm, pronotum 0.6 mm, elytra 1.2 mm, antenna 0.5 mm, maximum width of head 0.7 mm, pronotum 1.1 mm, elytra 1.2 mm. Shape of body as Fig. 54.

Chestnut, clypeus, lateral margins of pronotum and elytral apex lighter, legs, mouthparts and antennal segments up to 5th reddish, antennal segments 6–11 brown.

Head. Widest just beyond eyes. Without microsculpture. Punctured, punctures separated by about 2–3 times their own diameter, each one furnished with a short, recumbent seta directed forwards. One large puncture located close to postero-medial margin of each eye. Head beneath as Fig. 59. Mouthparts as Figs 61–63, 65. Eyes well developed. Space between eyes approximately twice as broad as each eye diameter viewed dorsally. Antennae stout with compact club. Each club segment distinctly broader than long. Ratios of length of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.4–0.3–0.3–0.3–0.5–0.2–0.5–0.3–1.0. Ratios of width of antennal segments 2–11 (2nd segment equal to 1.0) = 1.0–0.8–0.8–1.0–1.6–2.4–1.6–3.2–3.6–4.0. Ratios of width : length of antennal club segments 7–11 = 2.0–4.0–2.7–4.5–1.7. Antenna as Fig. 64.

Pronotum. Widest just before hind pronotal angles. Base straight. Pronotum without microsculpture. Punctate. Punctures smaller and finer than those on head, separated by about 6–12 or more times their own diameter. Punctures furnished with small recumbent setae randomly aligned. With a few large scattered punctures before base.

Scutellum. Smooth.

Elytra. Rounded, widest at basal third. Without microsculpture. Without sutural stria. Suture margined, margin raised. With 8 rows of large punctures separated by 1–2 times their own diameter longitudinally. Punctures spaced by about 4 times own diameter from lateral neighbours. Lateral 3 rows disappearing at the apical tenth of elytra. Punctures of rows more sparsely arranged apically not reaching apex of elytra. Rows reaching base. Intervals with minute punctures separated by about 2–4 times their own diameter. Interval punctures furnished with long recumbent setae distally oriented. Interval punctures more sparsely dispersed apically.

Mesosternum. As Figs 55, 60.

Metasternum. Convex, feebly transversely microsculptured medially, obliquely microsculptured laterally. With several punctures situated behind mesocoxae only, otherwise impunctate.

Membranous wings developed.

Abdomen. Feebly transversely microsculptured.

Legs. As stated in generic diagnosis. Hind tibiae simply medially curved apically in male, simply curved along entire length in female. Median legs as in Figs 68, 69.

Genitalia. Aedeagus as in Figs 57, 58, female genitalia as in Figs 66, 67.

Variation. Paratypes without large puncture near eye.

Derivatio nominis. The name has been selected to draw attention to the broad antennal club of the new species.

Genus *Termitoglobus* Reichensperger, 1915

Termitinglobus Reichensperger, 1915: 10.
Type of genus: *Termitoglobus ovulum* Reichensperger, 1915 (by monotypy).

Description of new species

***Termitoglobus semipunctatus* sp.nov.** (Figs 70–78)

Type material. Holotype, male: "Côte d'Ivoire, Parc du Banco, 3.iii.[19]77, I. Löbl, MNHG; paratypes: 2 males, 6 females, same data as holotype; 1male and 5 females MNHG, male, female SC.

Description. Oval, strongly convex. Length of body 1.1–1.4 mm; in holotype 1.4 mm, head 0.3 mm, pronotum 0.4 mm, elytra 0.7 mm, antenna 0.3 mm, maximum width of head 0.5 mm, pronotum 0.6, elytra 0.7 mm. Shape of body as Fig. 70.

Brown, clypeus, mouthparts and elytral apex reddish-yellow, lateral margins of pronotum yellow-brown, antennae yellow, legs red-yellow. Underside reddish, margins of meso- and metacoxae darker.

Head. Widest at eyes. Without microsculpture, distinctly punctured. Punctures separated by 5–7 times their own diameter. Each puncture furnished with a short recumbent seta directed forwards. Two large punctures placed close to eye medially. Eyes small in dorsal view, each eye 1/30 as wide as space between eyes, facets evident.

Clypeus distinctly emarginate anteriorly, without distinct clypeal line. Mandibles prominent, about 1/3 as long as head including mandibles in holotype. Right mandible with tooth located about at mid-length. Left mandible with distinct bump dorsally near base (as in Fig. 70). Head laterally viewed as in Fig. 77. Presence and position of mandibular teeth variable (see paragraph "Variation"). Ratios of length of antennal segments 2–11 (2nd segment equal 1.0) = 1.0–0.4–0.4–0.4–0.4–1.0–0.4–0.8–0.8–1.8. Ratios of width of antennal length 2–11 (2nd segment equal 1.0) = 1.0–0.5–0.5–0.5–0.8–1.5–1.0–1.8–2.3–2.3. Ratios of width : length of club antennal segments 7–11 = 1.2–2.0–1.8–2.3–1.0.

Pronotum. Widest at base. Without microsculpture, punctured. Punctures finer than those on head, separated by 6 or more times their own diameter. Some punctures furnished with short, recumbent seta oriented medio-caudally. Not margined anteriorly and basally. Hind angles acute, closely rounded in dorsal view, slightly blunt rounded in lateral view. Lateral margins very flatly rounded – almost slightly tapered from base towards the anterior angles in dorsal view; regularly rounded in lateral view.

Scutellum smooth.

Elytra. Broadest in basal 1/5. Without microsculpture, punctured. Striae or rows of punctures lacking. Punctures in basal quarter of elytra fine, small and scarcely detectable. Some punctures furnished with a short recumbent setae oriented caudally. Elytra on posterior 3/4 of their surface, except for apex, covered in distinctly developed, dense punctures separated by about 1–3 times their own diameter. At apex elytral punctures small and sparse, similar to those at elytral base. Epipleurae ending close to apex of 1st visible sternite, smooth.

Mesosternum. With very steep carina (Fig. 78) similar to *Cyrtusiola* (Fig. 56).

Metasternum. Flatly convex, microreticulate.

Membranous wings developed.

Legs. Medial and posterior male femora very strongly dilated; with dorsal flatly depressed area caudally capable of accommodating tibiae. Medial and posterior tibiae parallel-sided, approximately 4 times as long as wide in holotype, subparallel in females. Mid- and hind legs as Figs 71–72, 75, 76.

Genitalia. Male genitalia as in Figs 73, 74, female genitalia not examined.

Variation. Colour of dorsum varies from entirely reddish coloration to examples brown with black head and brown pronotum and elytra, pronotum with broadly yellowish or reddish lateral margins. The length of mandibles in males also varies. Male paratypes with mandibles as long as 1/5 of entire length of head. Strong elytral punctures slightly more widely dispersed in some of the paratypes than in the holotype, separated by about 2–4 times their own diameter. Head with feeble clypeal line in some paratypes. In females clypeus not emarginate, mandibles short not prominent, each mandible with short obtuse tooth medially. Hind femora less dilated in females, medial margins of medial and hind tibiae convex in females.

Differential diagnosis. *Termitoglobus semipunctatus* sp.nov. differs from the only other known species of the genus *Termitoglobus*, *T. ovulum* Reichensperger, 1915, in having two sizes of elytral puncturation and with the large punctures densely arranged.

Puncturation of *T. ovulum* is simple, fine and sparse, metasternal carina better developed (Fig. 79).

Derivatio nominis. The name of the new species is derived from the type of elytral puncturation.

Remark. The type material of the generic type – *Termitoglobus ovulum* Reichensperger, 1915 housed in GNHM has been studied. The original text of the description and drawings are thorough enough and agree with the material studied (male and female glued on the same label labelled as: "I. Reichensperger, descripsit; Typus; Termes latericius Hav..; Termitoglobus ovulum Reichensp."; and a female labelled as: "Reichensperger, descrips.; Termes latericius Gert.; Termitoglobus ovulum Reichensp.; Cotype").

All generic characters mentioned in the original description of the genus *Termitoglobus* Reichensperger, 1915 were detected in the type material of *T. ovulum* and also in T. *semipunctatus* sp.nov. – convex body, presence of prosternal carina placed before coxae, shape of maxillary and labial palpi, shape of widened femora as well as narrow tibiae. Moreover some characters were detected that had not been mentioned in the original description – presence of mesosternal carina, metasternal process extending between mesocoxae and transverse carina on the first visible abdominal sternit. These characters seem to be omitted in the original description but they are usual in Scotocryptini. The original description also states that the head is hidden as far as the eyes by the pronotum. This position of the head has been also detected in the type material of *T. ovulum*. In *T. semipunctatus* the head is prognathous with visible temples. The position of head can be influenced by the method of killing and preparing the material. Beetles killed in alcohol are usually contorted and difficult to manipulate in preparation while beetles killed by ethyl acetate are usually relaxed, allowing the head and appendages to be arranged in a natural position, as has been done with the material recently examined.

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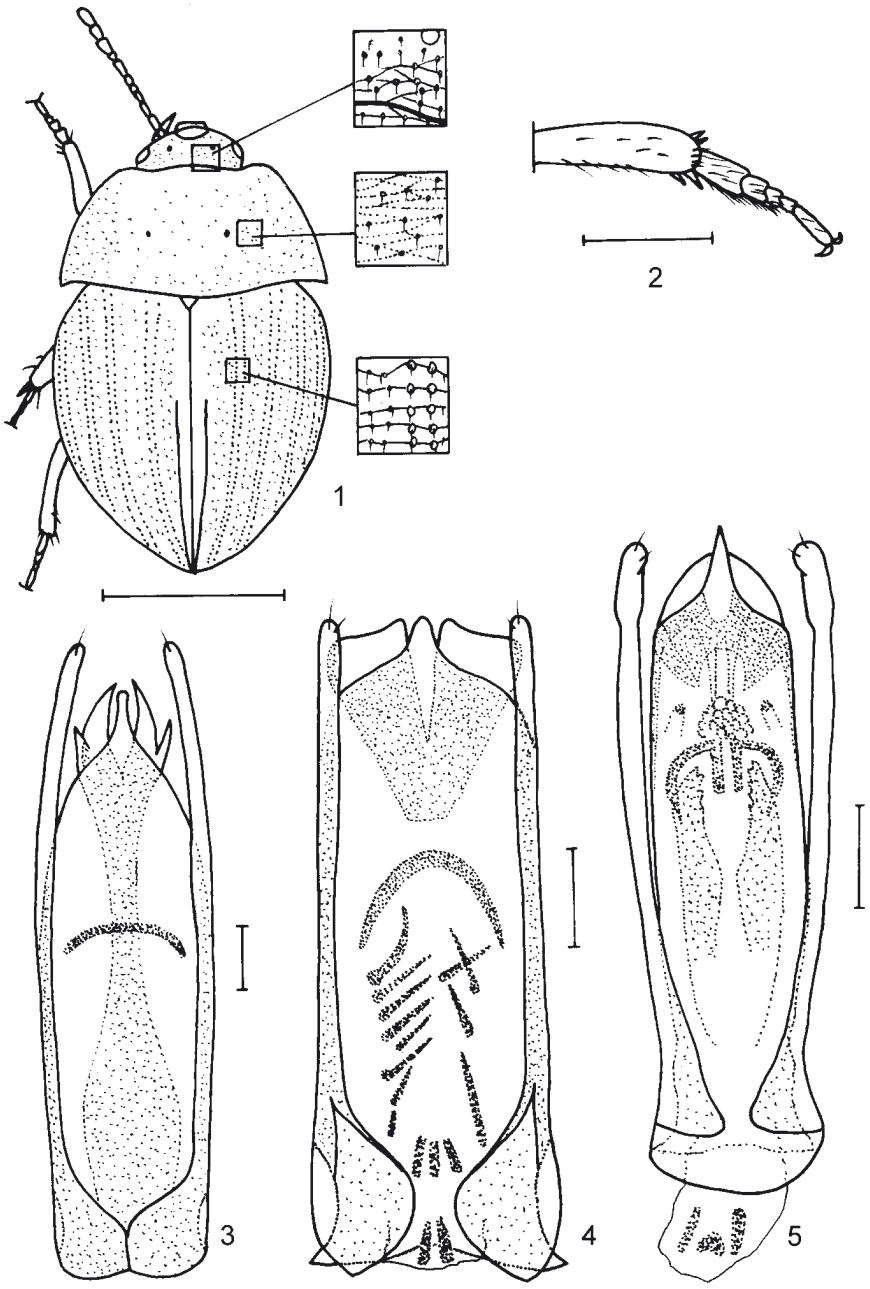
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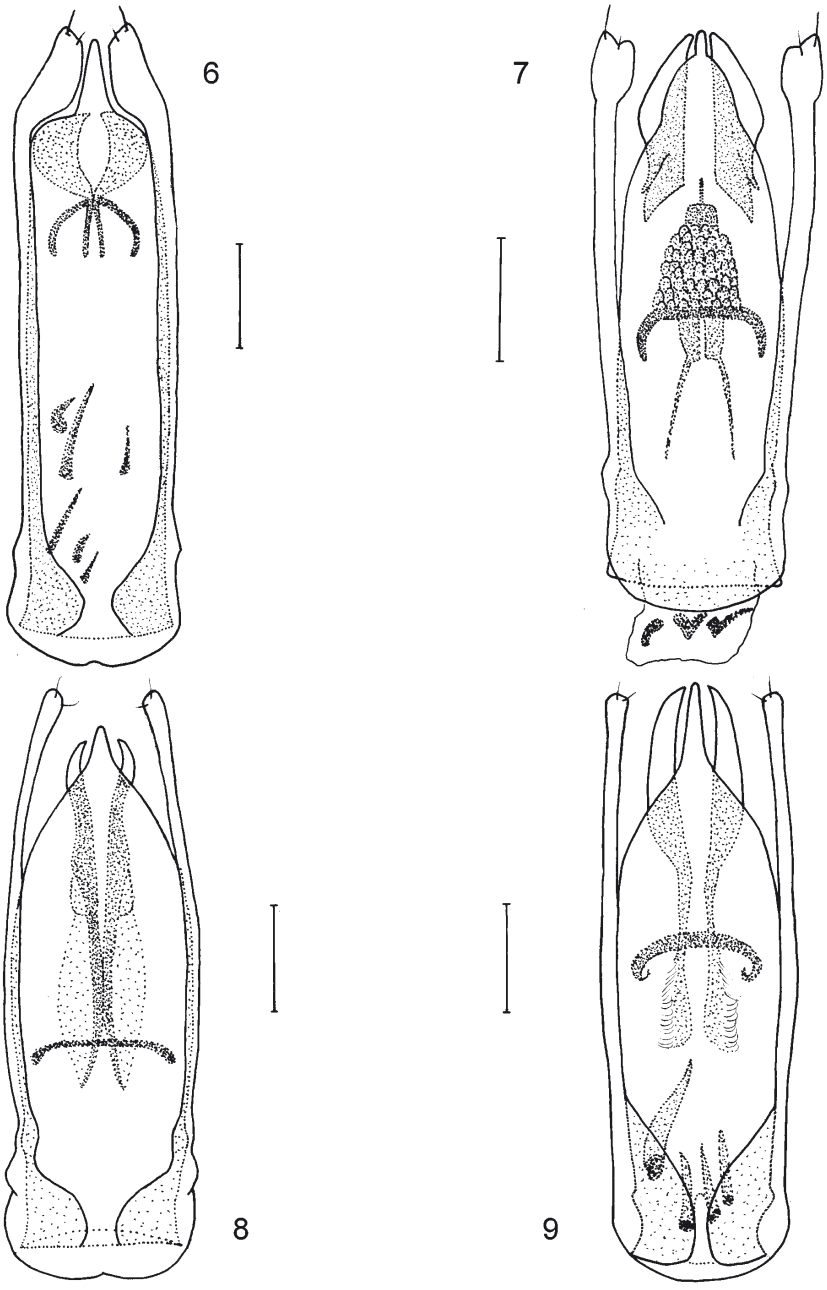
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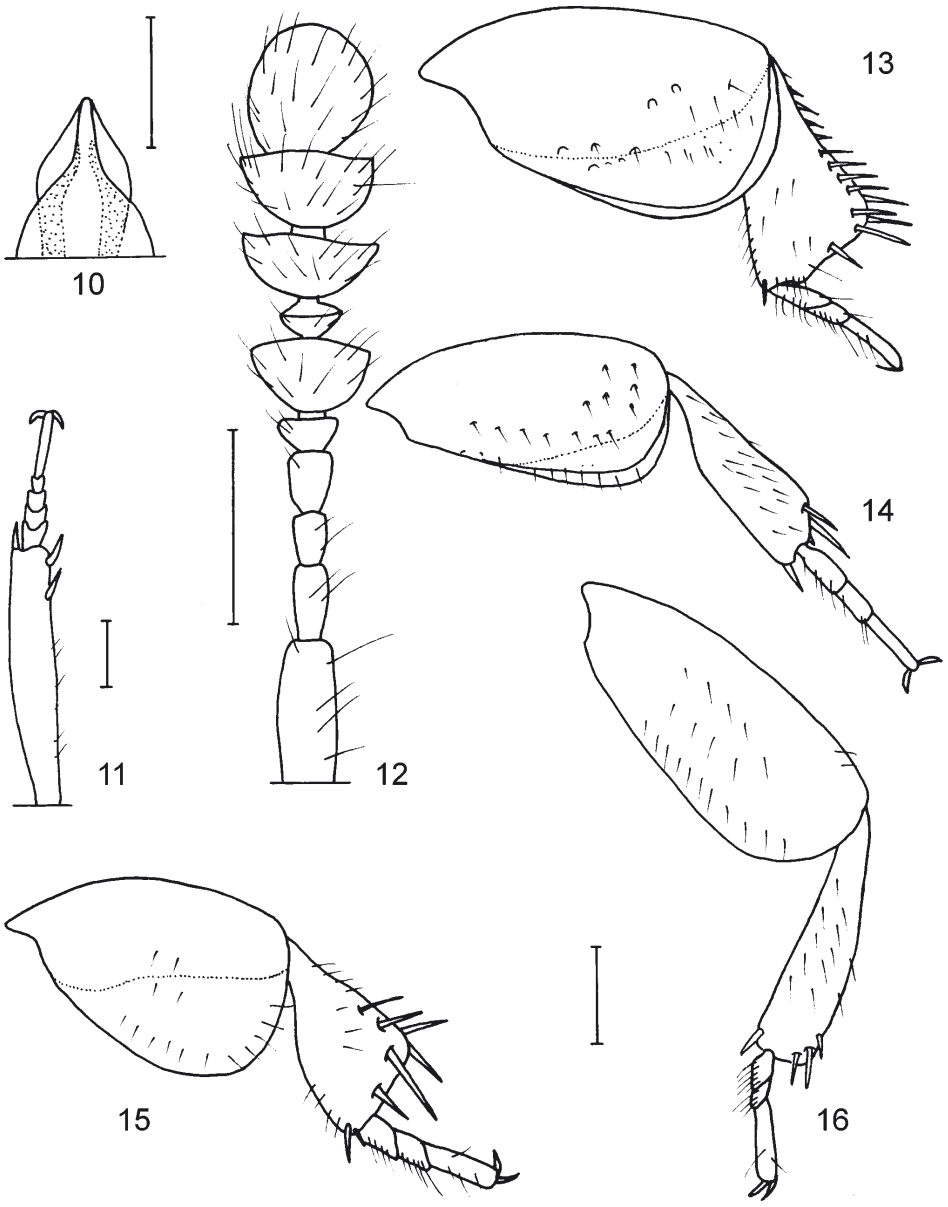
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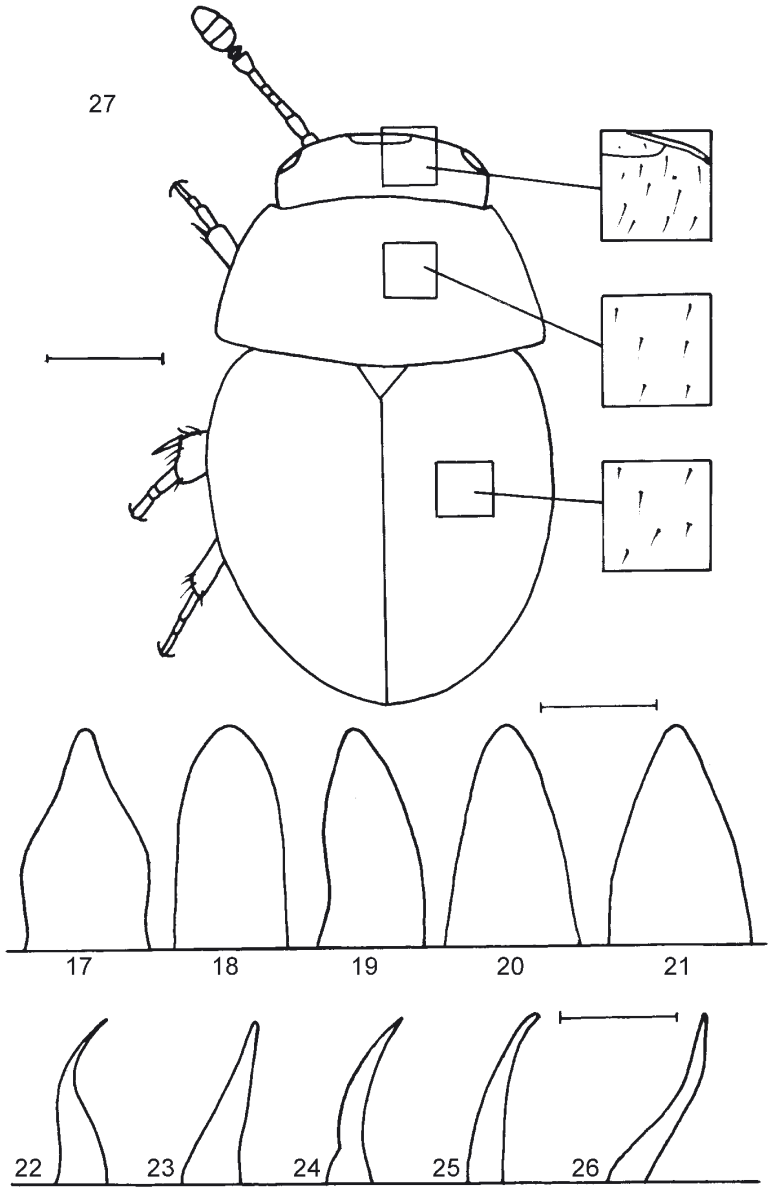
Figs 1–5. *Dermatohomoeus annae* sp.nov., holotype: 1, shape of body; 2, anterior tarsus; 3, aedeagus dorsally. 4, *D. angelinii* sp.nov., holotype: aedeagus dorsally. 5, *D. bulirschi* sp.nov., holotype: aedeagus dorsally. Scales: 1.0 mm (Fig. 1), 0.1 mm (Figs 2–5).



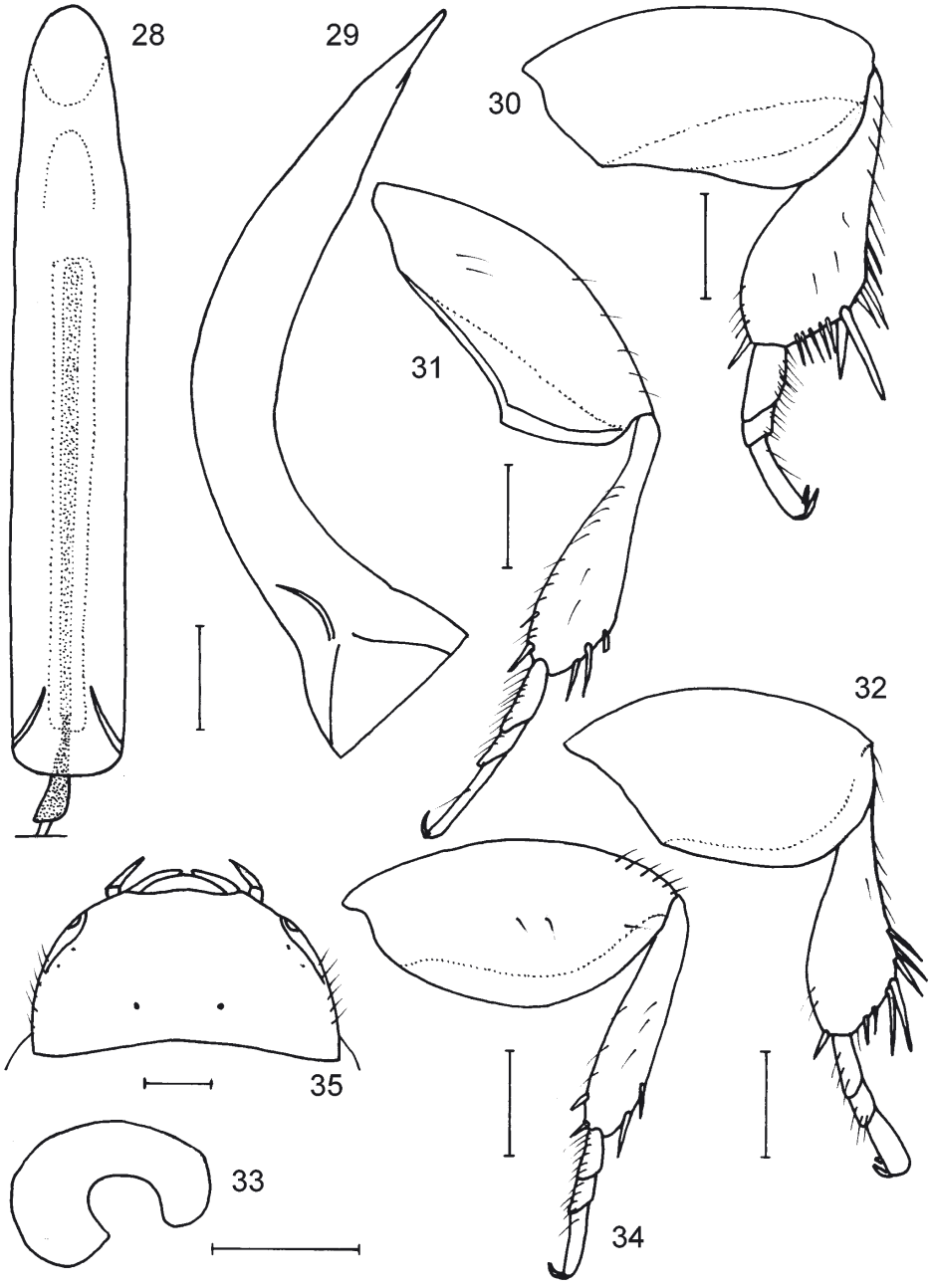
Figs 6–9. 6, *Dermatohomoeus ferrugineus* sp.nov., holotype: aedeagus dorsally. 7, *D. madagascarensis* sp.nov.; holotype: aedeagus dorsally. 8, *D. micropunctatus* sp.nov., holotype: aedeagus dorsally. 9, *D. similis* sp.nov., holotype: aedeagus dorsally. Scales: 0.1 mm.



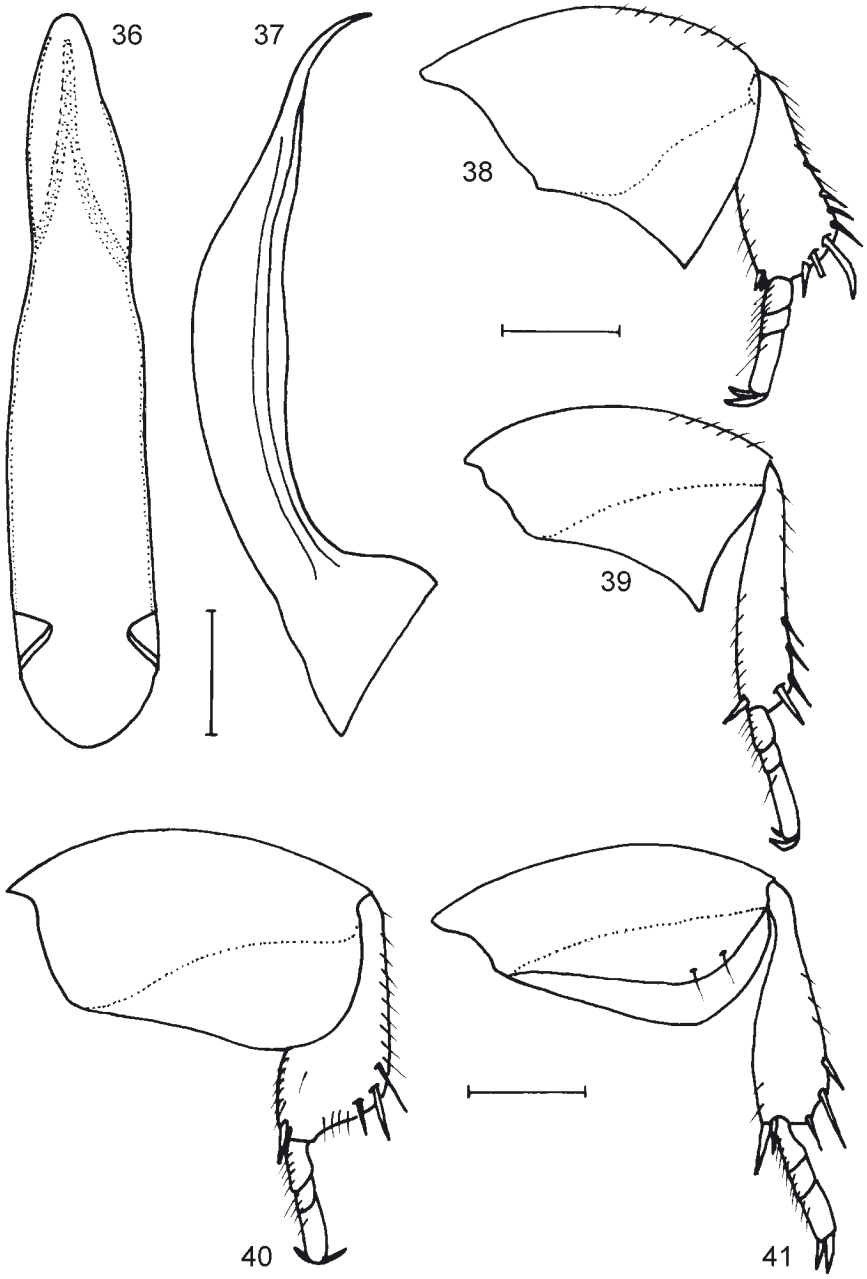
Figs 10–16. *Dermatohomoeus similis* sp.nov., paratype: 10, apex of aedeagus; holotype: 11, anterior tibia with tarsus. *Cyrtusiola annophthalma* sp.nov., holotype: 12, antenna; 13, middle leg; 14, hind leg; female paratype: 15, middle leg; 16, hind leg. Scales: 0.1 mm.



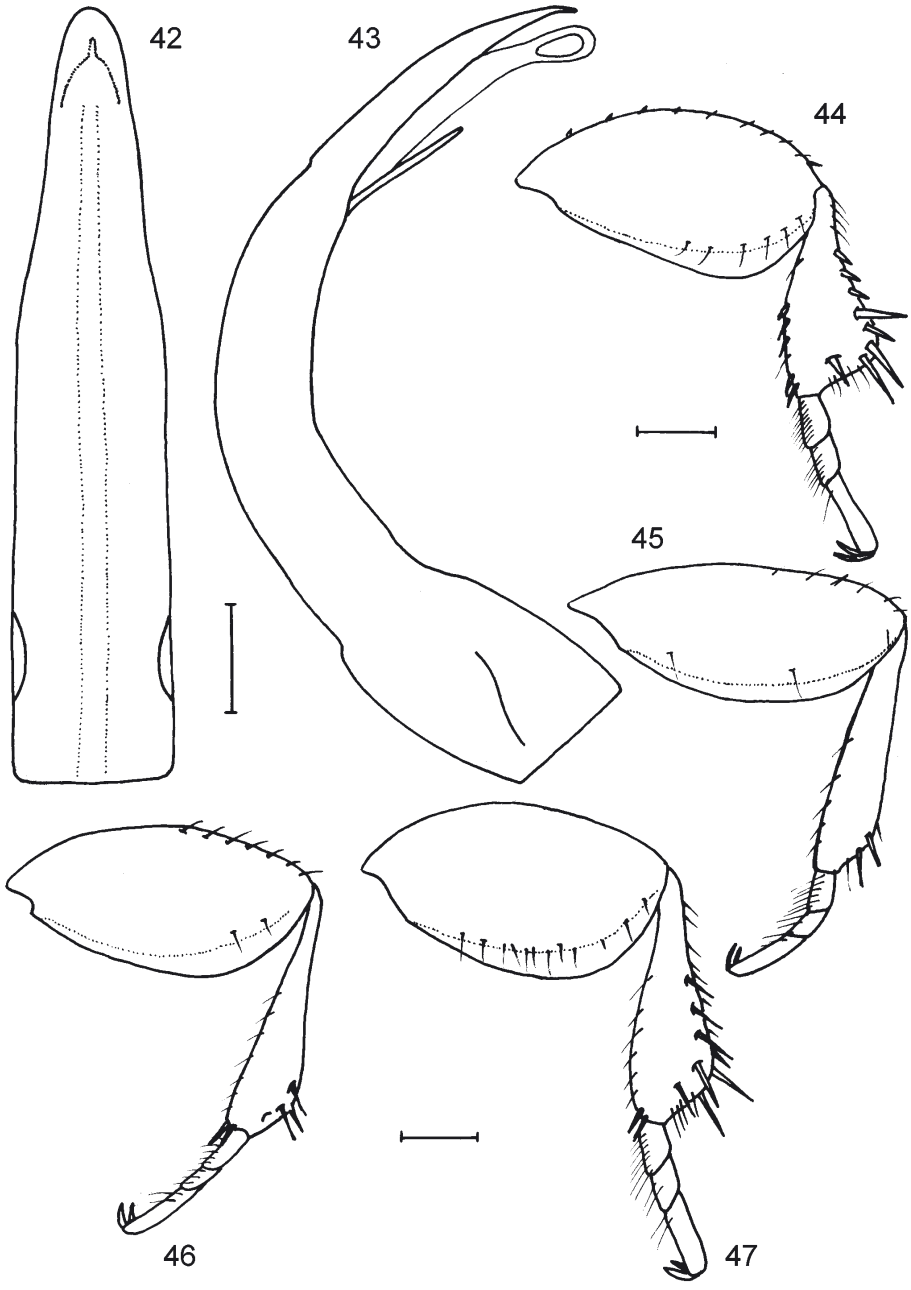
Figs 17–27. 17, *Cyrtusiola anophthalma* sp.nov., holotype: apex of aedeagus dorsally. 18, *C. brunnea* sp.nov., holotype: apex of aedeagus dorsally. 19, *C. dentata* sp.nov., holotype: apex of aedeagus dorsally. 20, *C. reticulata* sp.nov., holotype: apex of aedeagus dorsally. 21, *C. tibialis* sp.nov., holotype: apex of aedeagus dorsally. 22, *C. anophthalma* sp.nov., holotype: apex of aedeagus laterally. 23, *C. brunnea* sp.nov., holotype: apex of aedeagus laterally. 24, *C. dentata* sp.nov., holotype: apex of aedeagus laterally. 25, *C. reticulata* sp.nov., holotype: apex of aedeagus laterally. 26, *C. tibialis* sp.nov., holotype: apex of aedeagus laterally. 27, *C. brunnea* sp.nov., holotype: shape of body. Scales: 0.1 mm.



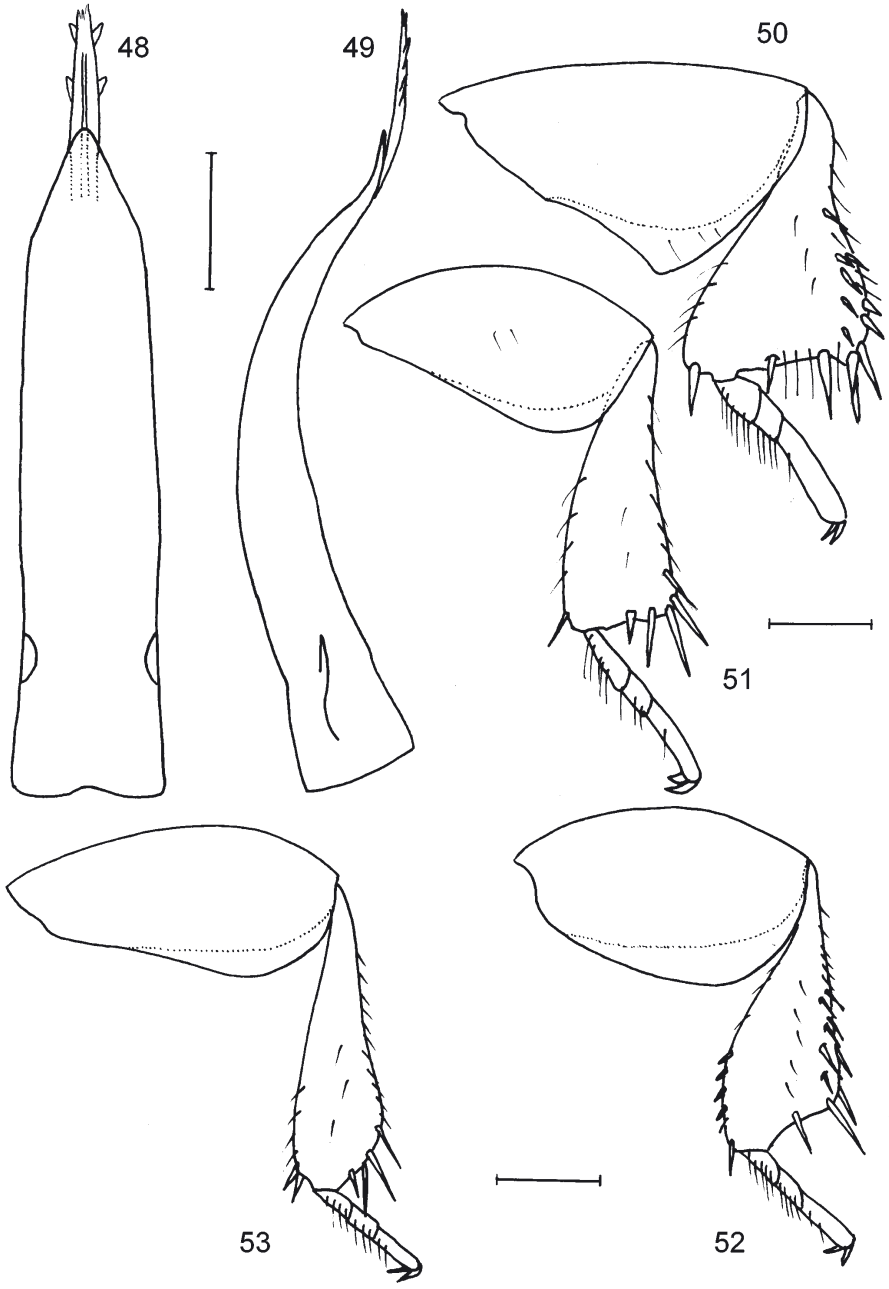
Figs 28–35. *Cyrtusiola brunnea* sp.nov., holotype: 28, aedeagus dorsally; 29, aedeagus laterally; 30 middle leg; 31, hind leg; female paratype: 32, middle leg; 33, spermatheca; 34, hind leg. 35, *C. anophthalma* sp.nov., holotype: head. Scales: 0.1 mm.



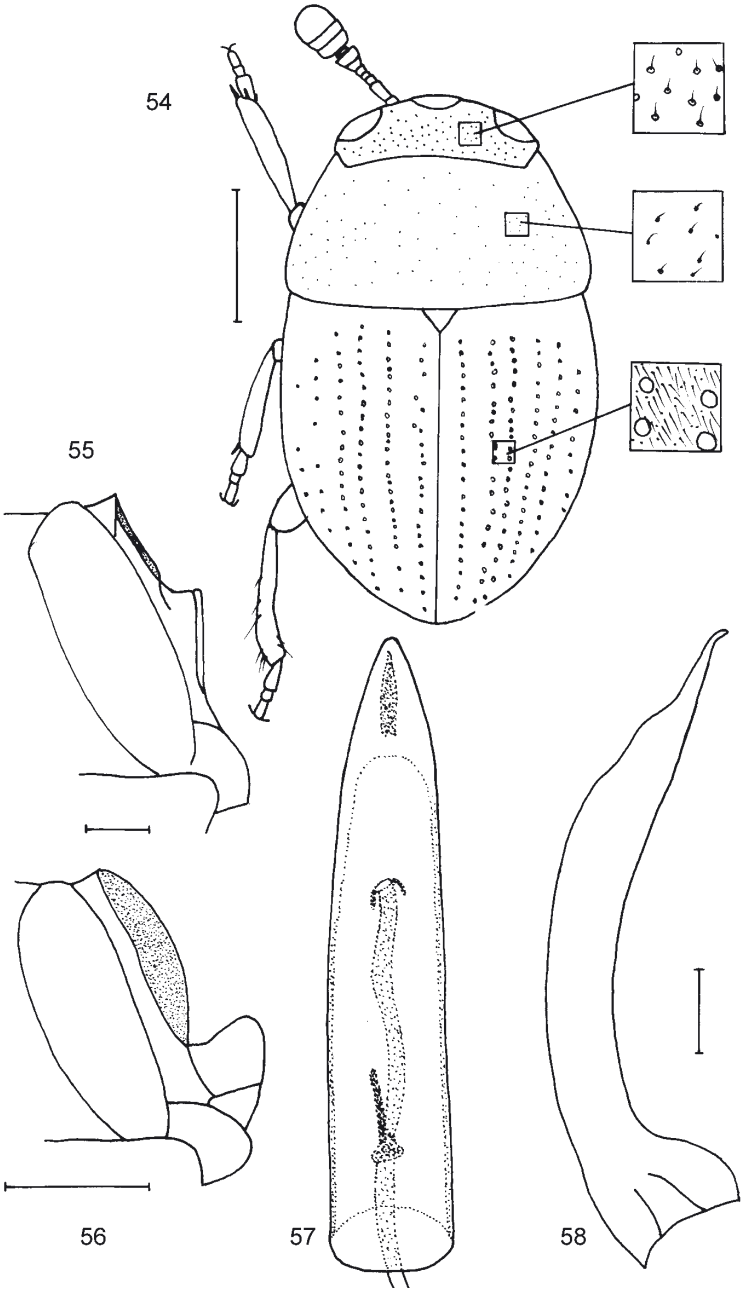
Figs 36–41. *Cyrtusiola dentata* sp.nov., holotype: 36, aedeagus dorsally; 37, aedeagus laterally; 38, middle leg; 39, hind leg; female paratype: 40, middle leg; 41, hind leg. Scales: 0.1 mm.



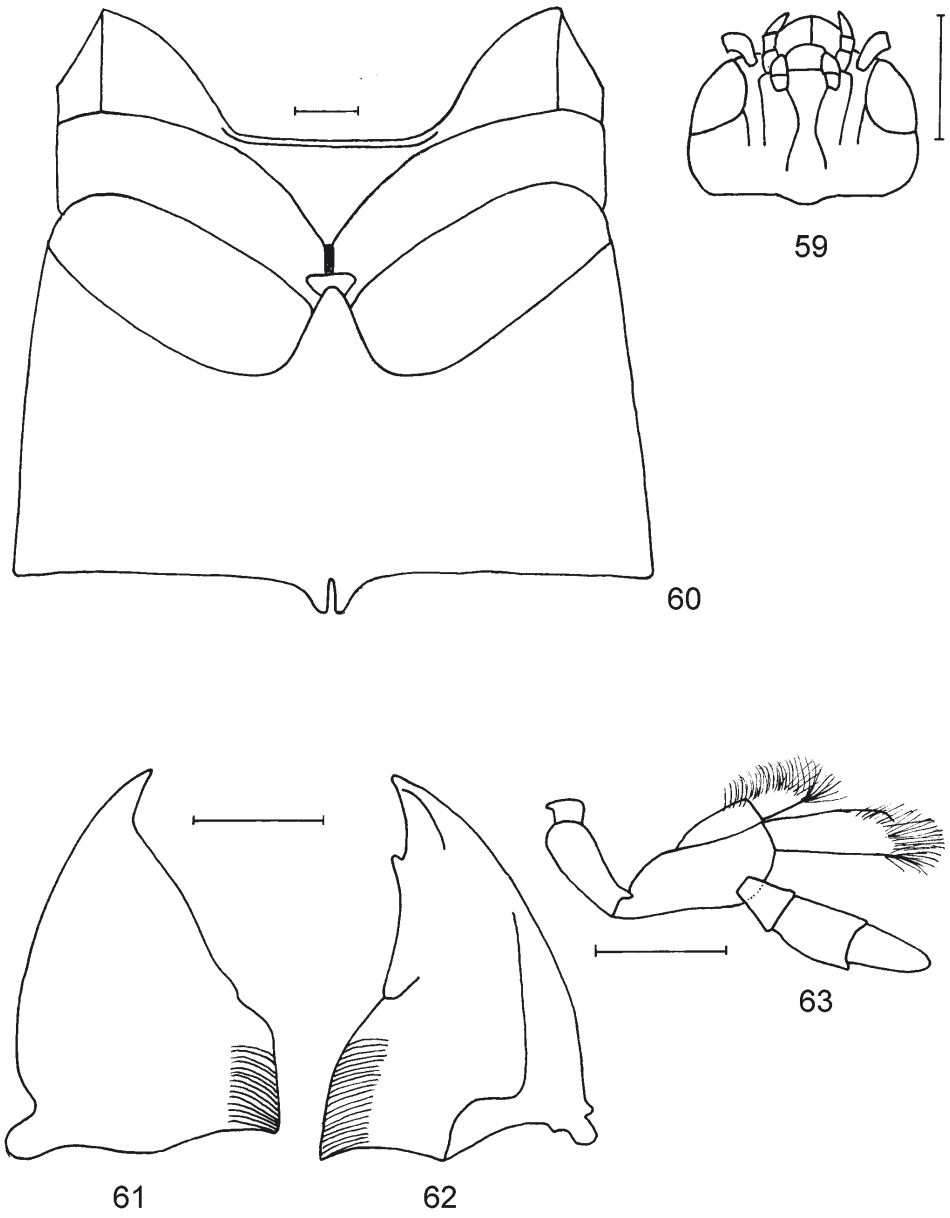
Figs 42–47. *Cyrtusiola reticulata* sp.nov., holotype: 42, aedeagus dorsally; 43, aedeagus laterally; 44, middle leg; 45, hind leg; female paratype: 46, middle leg; 47, hind leg. Scale: 0.1 mm.



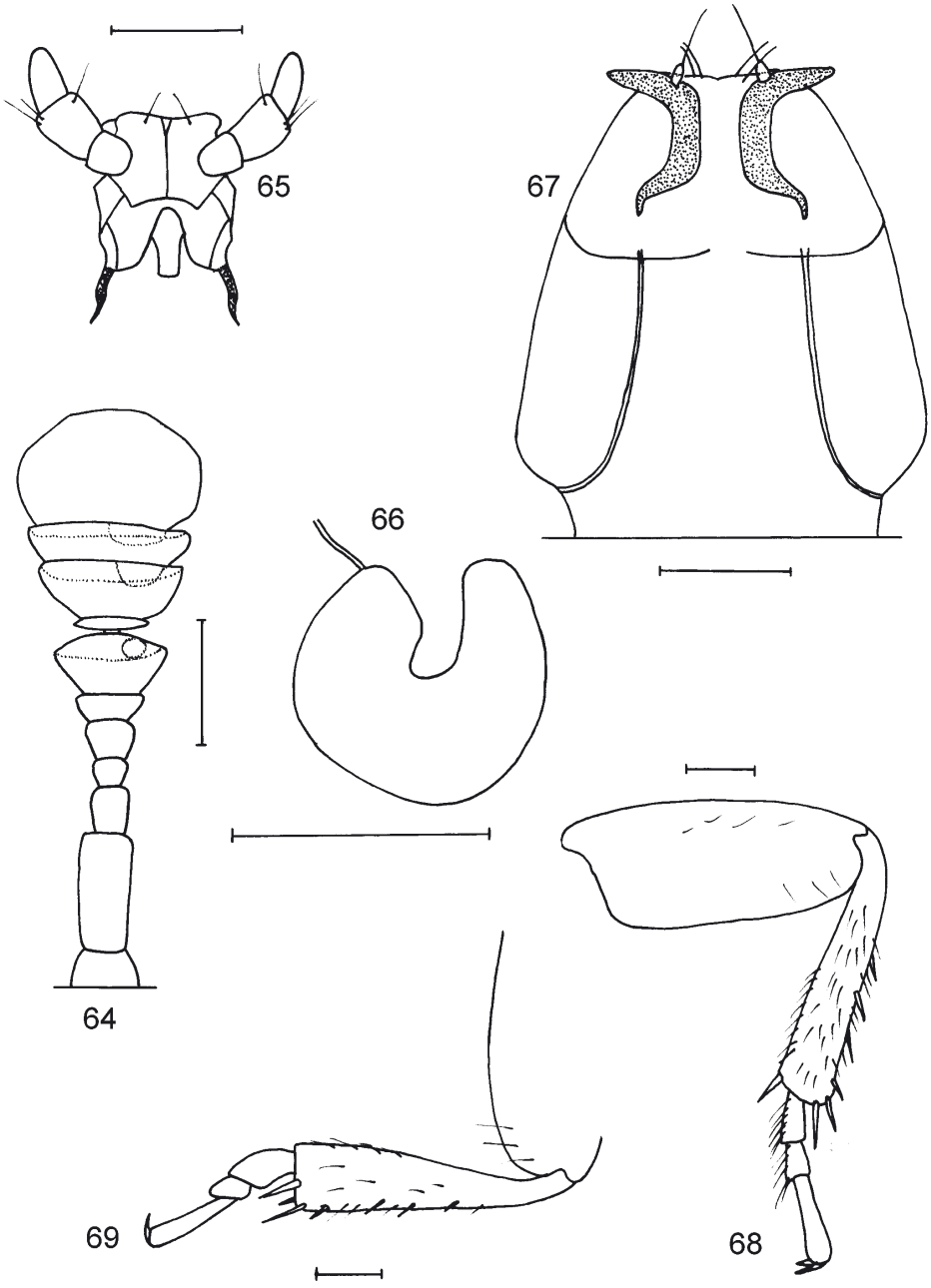
Figs 48–53. *Cyrtusiola tibialis* sp.nov., holotype: 48, aedeagus dorsally; 49, aedeagus laterally; 50, middle leg; 51, hind leg; female paratype: 52, middle leg; 53, hind leg. Scale: 0.1 mm.



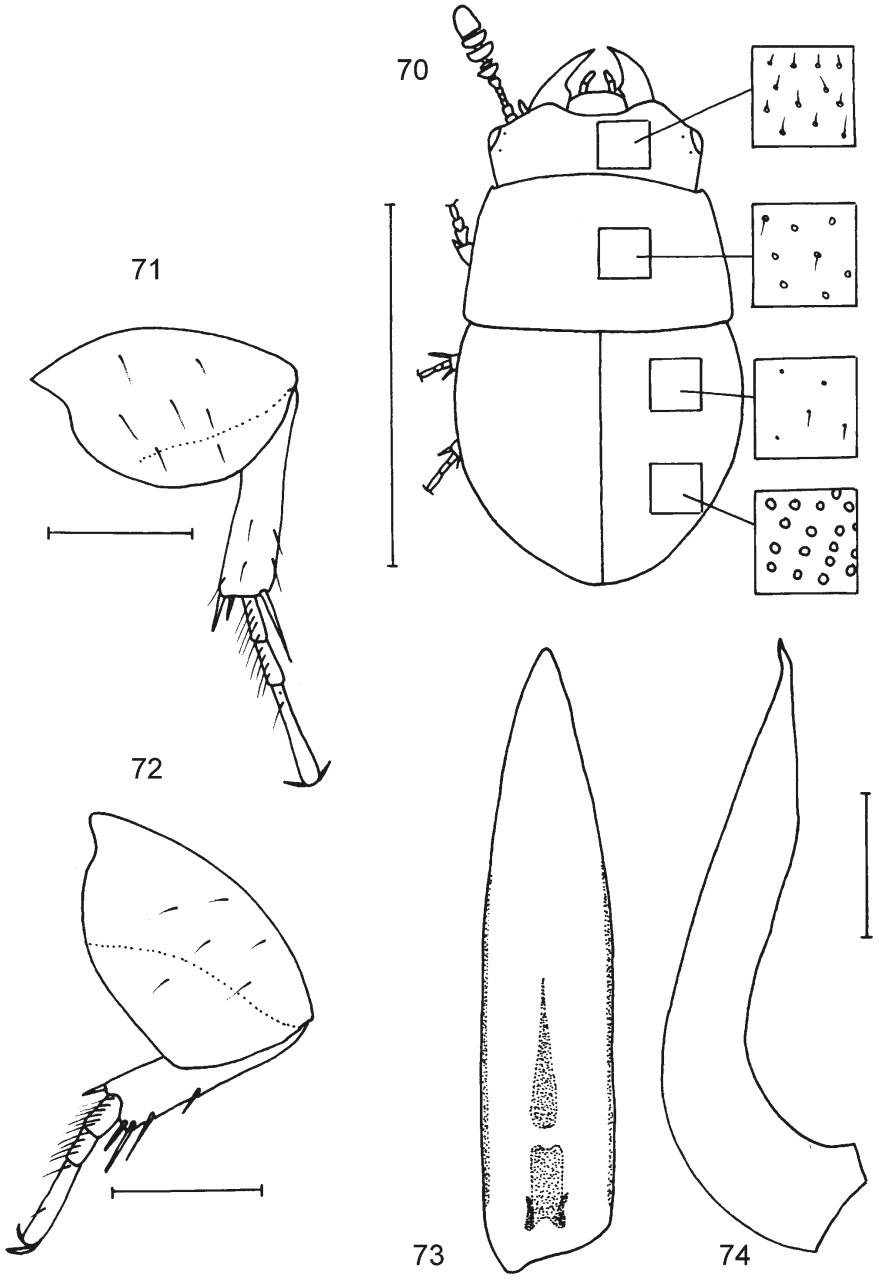
Figs 54–58. *Pseudocyrtusiola clavigera* sp.nov., holotype: 54, shape of body; 55, mesosternal carina; 57, aedeagus dorsally; 58, aedeagus laterally. 56, *Cyrtusiola convexa* Švec, 1996: mesosternal carina. Scale: 0.5 mm (Fig. 54), 0.1 mm (Figs 55–58).



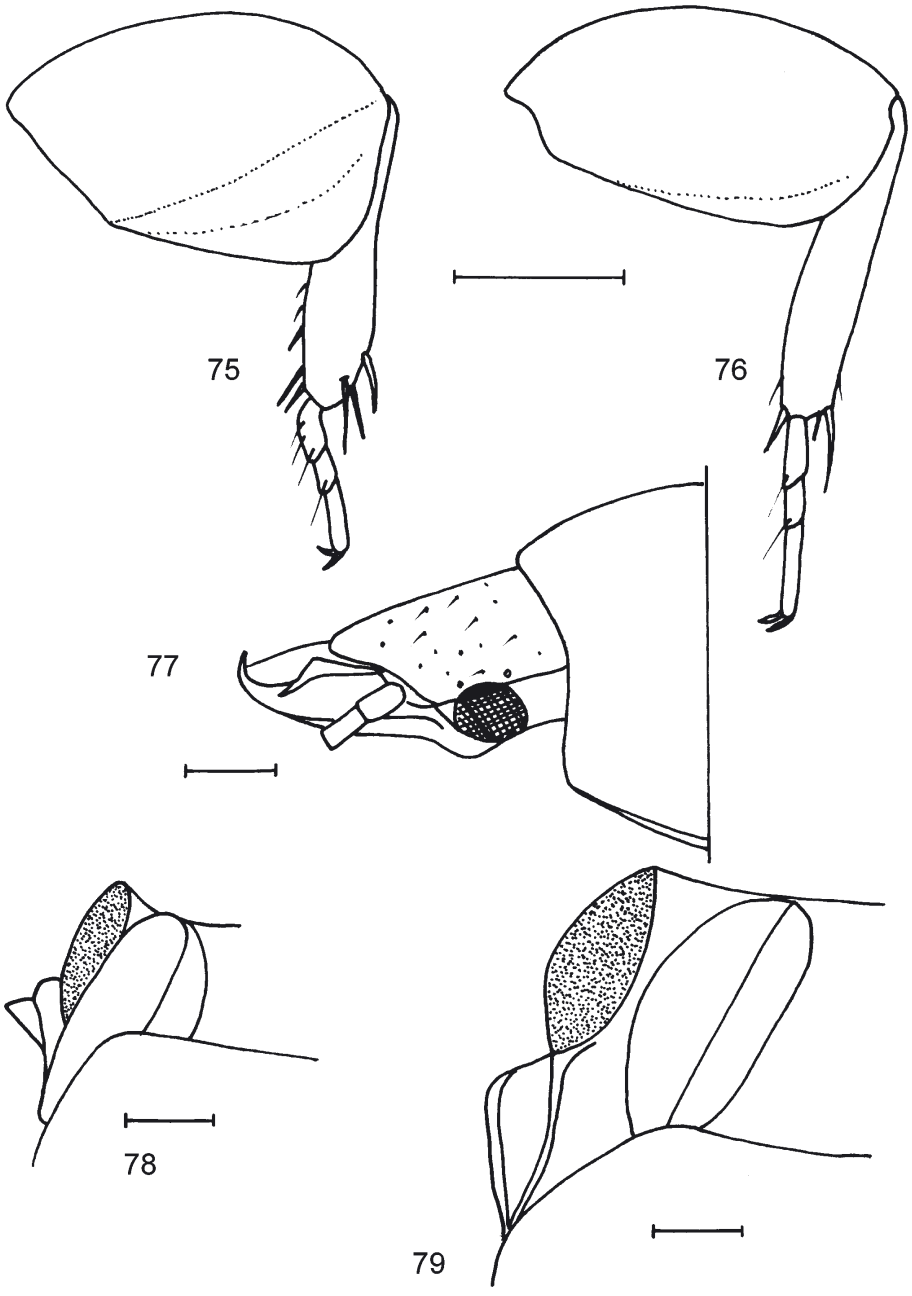
Figs 59–63. *Pseudocyrtusiola clavigera* sp.nov., holotype: 59, head beneath; 60, meso- and metasternum; female paratype: 61, left mandible; 62, right mandible; 63, maxilla. Scales: 0.1 mm.



Figs 64–69. *Pseudocyrtusiola clavigera* sp.nov., female paratype: 64, antenna; 65, labium; 66, spermatheca; 67, ovipositor; 68, middle leg; holotype: 69, middle leg. Scales: 0.1 mm.



Figs 70–74. *Termitoglobus semipunctatus* sp.nov., holotype: 70, shape of body; 71, middle leg; 72, hind leg; 73, aedeagus dorsally; 74, aedeagus laterally. Scales: 1.0 mm (Fig. 70), 0.1 mm (Figs 71–74).



Figs 75–79. *Termitoglobus semipunctatus* sp.nov., female paratype: 75, middle leg; 76, hind leg; holotype: 77, head laterally; 78, mesosternal carina. 79, *T. ovulum* Reichensperger, 1915, "typus": mesosternal carina. Scales: 0.1 mm.