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Revision of the Asian species of *Taxiplagus* BERNHAUER and *Pseudomoeocerus* CAMERON (Coleoptera: Staphylinidae: Staphylininae)

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Abstract

The Asian species of the genus *Taxiplagus* BERNHAUER, 1915 and *Pseudomoeocerus* CAMERON, 1950 (Coleoptera: Staphylinidae) are revised. Nine species are new to science: *T. ater* (E-Malaysia), *T. borneensis* (E-Malaysia), *T. fasciatus* (E-Malaysia), *T. klapperichi* (China, Laos), *T. laosensis* (Laos), *T. minahasa* (Indonesia: Sulawesi), *T. pecki* (N-Vietnam, China: Hongkong), *T. siamensis* (Thailand), *T. tarasovi* (Laos, N-Vietnam). *Taxiplagus termitophagus* (CAMERON, 1926) is removed from synonymy with *T. sericoilius* (CAMERON, 1920). A lectotype is designated for *Quediosoma termitophaga* CAMERON, 1926. Keys are provided for the Old World genera of the *Taxiplagus* lineage and for the Asian species of *Taxiplagus*. The Afrotropical genera are shortly discussed and diagnosed. The taxa *Pseudophilonthus* BERNHAUER, 1915 and *Nephronthus* BERNHAUER, 1932 are removed from synonymy with *Philonthus* STEPHENS and given generic status. The aedeagi of all Asian species of *Taxiplagus* are illustrated. Color images for selected *Taxiplagus* species and representatives of all genera treated, as well as some morphological details, are provided.

Key words: Coleoptera, Staphylinidae, Staphylininae, Philonthina, *Taxiplagus*, *Pseudomoeocerus*, *Pseudophilonthus*, *Nephronthus*, *Prianophthalmus*, new species, lectotype designation, taxonomy, Asia, zoogeography.

Introduction

The genus *Taxiplagus* was described by BERNHAUER (1915a) based on a single species (*T. abnormalis* BERNHAUER, 1915) from Java. Like in other genera, which are not only quite heterogeneous but also occur in the Afrotropical Region, additional genera have been described that belong to the same lineage but these either ended up as synonyms or contain erroneously attributed species. This was particularly evident in some Afrotropical genera: *Pseudophilonthus* BERNHAUER, 1915 (type species: *P. bicoloripennis* BERNHAUER, 1915); *Nephronthus* BERNHAUER, 1932, which was described as a subgenus of *Pseudophilonthus* (type species: *P. (Nephronthus) grandis* BERNHAUER, 1832), both having been treated as subgenera of *Philonthus* since SCHEERPELTZ (1933). In fact, these should be treated as distinct genera with only the respective type species belonging to each of the two genera. All other species assigned to *Pseudophilonthus*, as well as the genus *Prionophilonthus* SCHEERPELTZ, 1974 (type species: *P. cervicornis* (SCHUBERT, 1911)), belong to *Taxiplagus*, like a few more currently listed in *Philonthus*. Another Afrotropical genus, *Prianophthalmus* BERNHAUER, 1932 (type species: *P. hulstaerti* BERNHAUER, 1932), which has erroneously been listed in the subtribe Xanthopygina, also belongs to the same lineage. In the Oriental Region, two more genera have been described: *Quediosoma* CAMERON, 1926 (type species: *Q. termitophaga* CAMERON, 1926) and *Pseudomoeocerus* CAMERON, 1950 (type species: *P. malayanus* CAMERON, 1950). The former (like *Prionophilonthus*) was synonymized with *Taxiplagus* by ROUGEMONT (2001), and the latter is a distinct genus and is redescribed and diagnosed herein. The New World fauna has not been thoroughly checked for members of this lineage as yet.

Acknowledgement and abbreviations

The material used in this study is deposited in the following institutional and private collections:

BMNH	The Natural History Museum, London (R. Booth)
CRL	coll. G. de Rougemont (London)
CSO	coll. A. Smetana (Ottawa)
CST	coll. Y. Shibata (Tokyo)
FMC	Field Museum of Natural History, Chicago (P. Parillo, A.F. Newton)
IZ-CAS	Institute of Zoology, Chinese Academy of Sciences, Beijing (H. Zhou)
MHNG	Muséum d'Histoire Naturelle, Genève (G. Cuccodoro)
NMW	Naturhistorisches Museum Wien
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)
TARI	Taiwan Agricultural Research Institute, Taichung (C.-F. Lee)
TUA	Tokyo University of Agriculture, Entomological Laboratory (Y. Shibata)
ZMB	Zoologisches Forschungsmuseum Alexander König, Bonn (D. Ahrens, M. Schmitt)
ZMUC	Zoological Museum, University of Copenhagen (A. Solodovnikov)

The help of the persons and curators mentioned above is greatly appreciated. In addition, I want to thank Hongzhang Zhou for his help in translating Chinese labels, Adam Brunke for fruitful discussions on some of the characters occurring in this lineage and Volker Assing for proof-reading the manuscript.

Taxiplagus lineage

The members of this lineage share one important character: mesoventrite with a distinct and sharp, mostly sinuate, transverse carina (Figs. 11, 12). In addition, many members show characters that suggest an association with either social Hymenoptera or termites: serrate and sometimes flattened antennomeres, flattened meso- and metatarsi and/or flattened femora and tibiae. Exceptions are *Pseudophilonthus* with normal legs and antennae and *Pseudomoeocerus* with symmetrical antennae.

A carinate mesoventrite is also present in *Neobisnius* GANGLBAUER and the Neotropical myrmecophilous genus *Phileciton* WASMANN. Although the presence of this character can hardly be explained by convergence through functional adaptation, the question whether these two genera belong to the same lineage or not still requires clarification. The Afrotropical genera will be shortly diagnosed and discussed at the end of this paper.

Key to Old World genera of the *Taxiplagus* lineage (excluding *Neobisnius*)

- 1 Antennomeres strongly flattened in proximal half, flattened portion distad sharply delimited on segments 4–11; last segment of maxillary palpi shorter than penultimate, sparsely setose; Afrotropical genera 2
- Antennomeres not flattened in proximal half, at most with elongate intersegmental pieces; last segment of maxillary palpi about as long as penultimate, glabrous 3
- 2 Right mandible with unicuspid tooth; last segment of maxillary palpi markedly longer than half length of penultimate segment; eyes normal, hardly extended mediad on disc of head, interocular distance much greater than width of each eye viewed from above; meso- and metatibiae strongly depressed *Nephronthus* BERNHAUER
- Right mandible with bicuspid tooth; last segment of maxillary palpi distinctly less than half as long as penultimate segment; eyes markedly extended mediad on disc of head, interocular distance only slightly wider than eye width viewed from above; meso- and metatibiae not depressed *Prianophthalmus* BERNHAUER

- 3 Antennae with variable number of segments, at least antennomeres 6–9, asymmetrical, subserate or serrate *Taxiplagus* BERNHAUER
- Antennal segments symmetrical 4
- 4 Meso- and metatarsomeres normal, long and slender, not flattened dorsally; Afrotropical Region *Pseudophilonthus* BERNHAUER
- Meso- and metatarsomeres short, flattened dorsally; Oriental Region *Pseudomoecerus* CAMERON

***Taxiplagus* BERNHAUER**

Taxiplagus BERNHAUER 1915a: 236.

Quediosoma CAMERON 1926: 366; ROUGEMONT 2001: 76.

Prionophilonthus SCHEERPELTZ 1974: 24; ROUGEMONT 2001: 76.

Typus generis: *Taxiplagus abnormalis* BERNHAUER, 1915a.

REDESCRIPTION: Habitus: Figs. 1–6. With the exception of one Oriental species, all members have predominantly reddish coloration with a black head and a variable number of blackish abdominal segments.

Head usually rounded quadrangular, wider than long, with slightly to distinctly protruding eyes; mandibles moderately long, medial margin with distinctly bicuspid molar on left mandible, with inconspicuously bicuspid or simple molar on right mandible; last segment of maxillary palpi about as long as penultimate, glabrous; postmandibular ridge well developed but rather short, reaching posteriad to about midlength of eye; infraorbital ridge well developed but short, vanishing before reaching level of where gular sutures fuse; antennomeres 4–11 with fine toment, 4/5/6–10 increasingly asymmetrical, serrate or subserate, distal margin of serrate segments slightly to distinctly notched on tip of most extended side; pronotum with dorsal rows of punctures of variable number, sublateral group of punctures usually consisting of 4–5 punctures; superior lateral line hardly deflexed anteriorly, but anterolateral portion of pronotum sometimes elevated and markedly produced anteriorly and thus covering superior lateral line in semilateral view (Figs. 14–16); inferior lateral line vanishing at about level of anterior margin of procoxa, still widely separated from superior lateral line; margins of pronotum and elytra with numerous long and stout black setae; hind wings well developed and functional; process of mesoventrite rather narrow; posterior margin of abdominal tergite VII with fringe of palisade setae; legs with dorsally flattened meso- and metatarsomeres 2–5, at least metatarsomeres 2–5 with variably distinct midlongitudinal depression; first three segments of protarsi dilated in both sexes, bearing modified pale setae ventrally.

Male sternite VIII (Figs. 36, 38) with wide and rather deep medio-apical emargination and narrow, sometimes inconspicuous semimembranous extension; disc of sternite VIII with three primary setae; male sternite IX (Figs. 37, 39) with short asymmetrical basal portion, apex slightly to deeply emarginate; second gonocoxite of female genital segment with minute stylus bearing one longer and one shorter major seta (not illustrated).

VARIABILITY: Most characters are only slightly variable. Some species show a distinct variability in body size and this is usually strongly correlated with head size and proportions of eye/temple. While the eye size remains rather constant, the length of the temple increases with head size. In small specimens of the same species the tempora are thus shorter than the eyes while in large specimens they may be substantially longer.

BIONOMICS: Information on the habitat requirements is extremely scarce. Judging from other taxa with modified antennae which are associated with social Hymenoptera or termites, a similar life history may be assumed for *Taxiplagus*. The only information that somewhat supports this

hypothesis was published by CAMERON (1932: 258): "I have only found this species after exposing the combs of *Hodotermes obesus*, when it quickly appears on the scene and attacks the young; ...".

Most specimens of *Taxiplagus* studied were caught with flight intercept traps, a few by sifting or baited traps.

REMARK: No attempt has been made to subdivide the genus into species groups.

Key to species of *Taxiplagus*

- 1 Entirely black *ater*
- Head black, remaining body predominantly reddish 2
- 2 Anterior angle of pronotum marked by a sharp fake line, in semilateral view covering part of superior lateral line (Figs. 14–16) 3
- Anterior angle of pronotum more bluntly edged, superior lateral line completely visible in semilateral view (Fig. 13) 6
- 3 Dorsal rows of pronotum each with four punctures 4
- Dorsal rows of pronotum each with more than four punctures 5
- 4 Abdominal tergites VII and VIII distinctly bicolorous, black with anterior and posterior margins broadly reddish yellow (Fig. 4) *fasciatus*
- Abdominal tergites VII and VIII entirely dark brown, rarely posterior half of tergite VII obscurely reddish *pecki*
- 5 Large, without abdomen at least 6.0 mm long (on average more than 7 mm); sides of pronotum usually distinctly sinuately emarginate in front of posterior angle (Fig. 15); intersegmental pieces of antennomeres 4–11 elongate, with distinct microsculpture *borneensis*
- Small, without abdomen distinctly less than 6.0 mm long; sides of pronotum straight or even slightly convex in front of posterior angle; intersegmental pieces of antennomeres 3–11 not elongate, without microsculpture *minahasa*
- 6 Large, without abdomen at least 5.0 mm long; sides of pronotum usually distinctly sinuately emarginate in front of posterior angle (as in Fig. 15), very rarely straight 7
- Small, without abdomen at most 4.5 mm long; sides of pronotum straight or convex in front of posterior angle (as in Fig. 16) 10
- 7 Median lobe of aedeagus in lateral view with huge subapical tooth on face adjacent to paramere; paramere long, reaching about as far as subapical tooth, apex with very narrow fissure 8
- Median lobe of aedeagus in lateral view with inconspicuous tooth on face adjacent to paramere at about half length of apical portion of median lobe; paramere shorter, reaching about as far as tooth on median lobe, apex distinctly bifurcate 9
- 8 On average larger, 8.0–9.6 mm without abdomen; dorsal rows of pronotum each usually with more than five rather irregularly arranged punctures. Distribution: mainland Asia (China: Fujian; Laos) *klapperichi*
- On average smaller, 6.7–8.2 mm without abdomen; dorsal rows of pronotum each usually with five punctures. Distribution: Taiwan, Borneo, Java *abnormalis*
- 9 On average larger, 6.2–8.7 mm without abdomen; aedeagus larger, paramere with deeper apical furcation (Fig. 26) *tarasovi*
- On average smaller, 5.1–6.6 mm without abdomen; aedeagus smaller, paramere with less deep furcation (Fig. 27) *laosensis*
- 10 Pronotum about as wide as long, parallel-sided in posterior two thirds *siamensis*
- Pronotum wider than long, widest at about midlength, sides almost regularly convex 11

- 11 Apex of median lobe of aedeagus sharply pointed (Fig. 34); paramere with two regular parallel rows of peg setae (Fig. 34c). Distribution: southern India (Nilgiri Hills) *sericoilius*
- Apex of median lobe of aedeagus less sharply pointed (Fig. 35); paramere with rather irregular longitudinal cluster of peg setae (Fig. 35c). Distribution: northern India (Uttarakhand) *termitophagus*

Taxiplagus abnormalis BERNHAUER

Taxiplagus abnormalis BERNHAUER 1915a: 237; CAMERON 1937: 27.

Holotype ♂ (by monotypy): “P.F. Sijthoff, Preanger, Java \ *Taxiplagus abnormalis* Bernh. typ. un. \ Chicago NHMus M.Bernhauer collection” (FMC).

REDESCRIPTION: 12.5–16.0 mm long (6.7–8.2 mm long, abdomen excluded). – Head, antennal segments 4–8 (sometimes 3–9) and tips of mandibles black, remaining body orange-red to reddish testaceous, basal halves of first four visible abdominal segments reddish brown, basal two or three antennomeres bright orange red or darker reddish, and distal two or three antennal segments dark reddish, in very dark specimens only last segment partly dark reddish brown.

Head subrectangular to trapezoid, 1.07–1.20 times as wide as long; eyes weakly prominent, 0.8 (larger specimens) – 1.3 (smaller specimens) times as long as tempora; tempora subparallel (larger specimens) or more distinctly narrowed toward rounded hind angles (smaller specimens), densely punctate and with dense golden pubescence; dorsal surface of head flat, disc (from clypeus to base of head) impunctate except for a few larger setiferous punctures bearing long black setae; medial interocular punctures separated by 1.5–2.0 times the distance between medial and lateral interocular punctures; behind interocular punctures with a group of a few loosely arranged larger punctures, partly forming a slightly oblique row; surface with very fine and dense, wavy microsculpture; antennae with segments 4 and 5 slightly oblong, segments 6–10 about as long as wide, gradually decreasing in length and width, segments 5–10 serrate; pronotum 1.01–1.10 times as wide as long, widest at about basal third, sides almost regularly convex in anterior two thirds, basal third deeply sinuately emarginate, hind angles rather well marked, lateral margin visible from above almost to anterior angles, disc with dorsal rows of 5 almost equidistant punctures; surface of pronotum with exceedingly fine and dense microsculpture of wavy microstriae; elytra along suture (from basal line of scutellum to sutural angle) slightly longer than pronotum along midline, with well demarcated humeral angles, very densely punctate and pubescent, punctures separated by slightly less than a puncture diameter in transverse direction, pubescence reddish to golden; abdominal tergites III and IV with transverse basal depression, tergite V also with a depression but less distinct; densely and rather coarsely punctate in basal depressions, with finer punctation on remaining portions, increasingly denser and finer on following tergites; tergites III–IV with two basal lines, frequently also tergite V with a very weakly developed second basal line, elevated area between basal lines with a single row of fine setae close to second basal line.

Male: sternite VIII with wide and very deep, arcuate, apical emargination and with very narrow semi-membranous extension along apical margin, except for bottom of emargination; male sternite IX with deeply emarginate apex.

Aedeagus (Figs. 23, 24) with median lobe broad, sinuately narrowed posteriad; apex acute, in lateral view with large subapical tooth; paramere (Figs. 23c, 24c) rather variable, long and slender, sometimes widened toward apex, with short medioapical fissure.

ADDITIONAL MATERIAL EXAMINED:

I N D O N E S I A: JAVA: ♂: “Batoerraden, G. Slamet, Java, F.C. Drescher, 9.VI.1928” (BMNH); 1 ♂: “F.C. Drescher G. Tangkoeban Prahoe, 4000-5000, Voet, Preanger, Java, 12.IX.1929” (NMW); 1 ♀: same data but 24.III.1930 (BMNH); 1 ♀: same data but 12.–18.I.1933 (BMNH).

M A L A Y S I A: SABAH: 1 ♂: Kinabalu, Sayap, 900 m, 18.II.1993, leg. K. Maruyama" (CST).

T A I W A N: XINBEI SHI: 1 ♂, 1 ♀: Fushan, 24°45'N 121°34'E, II.2001–I.2002, leg. Wenbe Hwang [94/X2] (NMW); HUALIEN: 1 ♂: Tailuko, 11.–17.XI.2007, Y.-F. Hsu (TARI); ILAN: 1 ♂, 1 ♀: Yuanshan, 12.IX.2000, leg. Takashi Shimada (CST).

DISTRIBUTION: The species is at present known only from the islands of Java (Indonesia), Borneo (E-Malaysia) and Taiwan.

Taxiplagus klapperichi sp.n.

Holotype ♂: "Kuatun (2300m), 27,40 n.Br. 117,40 ö.L., J. Klapperich, 17.4.1938 (Fukien)" (NMW). – **Paratypes** (4 exs.): 1 ♀: same data as holotype but 24.3.1938 (ZMB); 1 ♂: "N LAOS, 1300–1500m, Phongsali Prov., Phongsali env., 2004, 1–15 May, Lao collector leg." (CST); 1 ♂: "Hainan, Jianfengling, 1010 m, JW08, window traps, 18–VII-2004, leg. Jie Wu & Yong-jie Chen [in Chinese]" (IZ-CAS); 1 ♀: "Guangdong, Nanling, 20–VIII-2008, leg. Xiao-yu Zhu [in Chinese]" (IZ-CAS).

DIAGNOSIS: Closely resembling *T. abnormalis*, but differing as follows: larger, 15.0–19.0 mm long (8.0–9.6 mm, abdomen excluded); coloration generally darker reddish, antennae with segments 4–11 black, distal half of segment 11 dark reddish, first four visible abdominal segments dark reddish brown, posterior margins narrowly obscurely reddish.

Head slightly less wide, 1.11–1.13 times as wide as long; length of tempora extremely variable (Figs. 19, 20), eyes 0.68–1.31 times as long as tempora; antennae slightly longer, with segments 4–5 oblong, segment 6 as long as wide or very slightly oblong, segments 7–10 about as long as wide, segments 6–9 serrate, segments 5 and 10 weakly serrate; pronotum 1.03–1.09 times as wide as long, dorsal rows each with 6–8 slightly irregularly arranged punctures; surface of elytra with coarser and denser punctation, punctures separated by less than a puncture diameter in transverse direction.

Male sternite VIII (Fig. 36) and male sternite IX (Fig. 37) similar to those of *T. abdominalis*.

Aedeagus (Fig. 25) similar to that of *T. abnormalis*, but slightly larger; paramere (Fig. 25c) also similar to that of *T. abnormalis*, but even more slender and with differently arranged peg setae.

DISTRIBUTION: The species is currently known only from Southeast China (Fujian, Guangdong) and northern Laos.

ETYMOLOGY: The species is dedicated to Johann Friedrich Klapperich (1913 – 1987) who was among the first to collect extensive beetle material in Southeast China.

Taxiplagus tarasovi sp.n.

Holotype ♂: "S-LAOS: Champasak province, Bolaven plateau, Ban Houayteuay, 14 SE of Muang Paxong, 15°04.655'N 106°16.848'E \ disturbed montane forest, pitfall traps, 1200 m, 6.05.–14.06.2008, leg. S. Tarasov" (NMW). – **Paratypes** (6 exs.): 2 ♂♂: LAOS-CE, 1–18.v.2001, Boli Kham Xai prov., 18°21'N 105°08'E, BAN NAPE (8 km NE), ~600m, C.L. Peša leg." (CST); 1 ♂: "LAOS-N (Oudomxai), 1–9.v.2002, ~1100m, 20°45'N 102°09'E, OUDOM XAI (17km NEE), J. Chalupok leg." (NMW); 1 ♂, 1 ♀: "VIETNAM Tuyen Quang prov., NaHang Res., 300m, 16.–20.V.97, rain forest, FIT, S. Peck" (CSO, NMW); 1 ♂: "VIETNAM: Tamdao, 80 km N of Hanoi, prov. Vinh phu, 900 m, 15.–17.4.1986" (SMNS).

DESCRIPTION: 12.5–18.2 mm long (6.2–8.7 mm, abdomen excluded). – Head black; mandibles dark ferruginous red, medial faces infusate; labrum and palpi pale reddish; antennae with segments 1 and 2 bright reddish, segments 3 and 11 darker reddish, apex of segment 3 dark, remaining segments black; remaining body reddish to orange red, posterior margin of elytra somewhat paler reddish yellow, abdominal segments III–VI brown with posterior margins narrowly but sharply delimited bright reddish to reddish yellow, segment VII with basal two

thirds brown, posterior third and entire segment VIII reddish; legs reddish yellow, tarsi reddish brown.

Head rounded quadrangular to slightly trapezoid (Fig. 21), 1.22–1.26 times as wide as long; eyes rather prominent, usually distinctly longer than subparallel tempora (eye:temple=1.3–1.7:1), but in one exceptionally large male (Fig. 22) shorter than tempora (eye:temple=0.85:1); medial interocular punctures separated by about twice the distance between medial and lateral interocular punctures (about equidistant in very large male); tempora densely punctate and with dark golden yellow pubescence; antennae (Fig. 18) with segments 4 and 5 slightly oblong, segment 6 about as long as wide, segments 7–10 increasingly transverse, segments 6–10 moderately serrate; pronotum rather broad, 1.10–1.15 times as wide as long, sides more or less distinctly sinuately emarginate in front of hind angles, in one studied specimen straight; dorsal rows usually with five equidistant punctures, but slight irregularities as well as finer additional punctures rarely occur; head and pronotum with very fine and dense microsculpture of transverse and oblique waves; elytra along suture (from basal line of scutellum to sutural angle) about as long as or slightly shorter than pronotum along midline; densely, moderately strongly punctate, punctures separated by about a puncture diameter in transverse direction; abdominal tergite III moderately densely punctate, particularly along midline, remaining tergites very densely, finely punctate, particularly V–VII, where punctural grooves are almost contiguous; punctures somewhat coarser at base of tergites III and IV; segments III–V with two basal lines, elevated area between basal lines impunctate on segments III and IV; ground pubescence of elytra and tergites golden yellow.

Aedeagus (Fig. 26) with median lobe rather slender, flame-shaped, with narrow and sharply pointed apical portion, in lateral view with inconspicuous tooth at about level of apex of paramere; paramere (Fig. 26c) with bifurcate apex, each lobe bearing a small cluster of peg setae apically.

DISTRIBUTION: The species is at present known from Laos and North Vietnam.

ETYMOLOGY: The species is named after Sergej Tarasov, avid beetle collector, who not only collected the holotype but also donated a lot of staphylinid specimens to the NMW.

Taxiplagus laosensis sp.n.

Holotype ♂: “N LAOS, 1300–1500m, Phongsali Prov., PHONGSALI env., 2003 18–25 May, Lao collector leg.” (TUA). – **Paratypes** (4 exs.): 2 ♀♀: same data as holotype (CST, NMW); 2 ♀♀: “LAOS-CE, 1–18.v.2001, Boli Kham Xai prov., 18°21'N 105°08'E, BAN NAPE (8 km NE), ~600m, C.L. Peša leg.” (CST).

DIAGNOSIS: Coloration exactly as in *T. tarasovi*, otherwise differing as follows: on average smaller, 11.0–12.5 mm long (5.1–6.6 mm long, abdomen excluded); eyes larger, about twice as long as tempora, tempora distinctly convergent, head shape thus more distinctly trapezoid; elevated area between basal lines at least on tergite IV with a sparse transverse row of fine punctures.

Aedeagus (Fig. 27) very similar to that of *T. tarasovi* but smaller; in lateral view apical portion between apex and small tooth somewhat shorter; paramere (Fig. 27c) with shorter apical emargination.

DISTRIBUTION: The species is at present known only from northern and eastern Laos.

ETYMOLOGY: The species is named after the country of its origin.

Taxiplagus pecki sp.n.

Taxiplagus sp.: ROUGEMONT 2001: 76.

Holotype ♂: “VIETNAM Tuyen Quang prov., NaHang Res., 300m, 20.-24.V.97, rain forest, FIT, S. Peck” (CSO). – **Paratypes** (47 exs.): 29 exs.: same data as holotype (24 CSO, 5 NMW); 9 exs.: same locality as holotype but “16.-20.V.97” (7 CSO, 2 NMW); 3 exs.: same locality as holotype but “16.-18.V.97, forest, carrion traps” (CSO); 3 exs.: “VIETNAM CaoBang Prov., BaBe NP, 180 m, forest, FIT, 7.-11.1997, S. Peck” (2 CSO, 1 NMW); 2 exs.: “Hongkong, K.A.R.C., IV.1991, G. Ades \ Malaise trap” (CRL, NMW); 1 ex.: “Hongkong, K.F., 1.XII.1996, G. de Rougemont \ Flight interception trap” (CRL).

DESCRIPTION: 9.0–12.0 mm (4.3–5.5 mm, abdomen excluded). – Head black, antennae with basal three segments black to black brown, only the very bases narrowly reddish, remaining segments reddish brown; labrum and mandibles reddish brown, medial margin of mandibles very narrowly blackish; palpi yellowish red; pronotum, elytra and abdominal segments III–VI orange red, segments VII–X black to dark brown, segment VII narrowly reddish proximally; rarely also segment VI to some extent darker reddish brown; legs reddish.

Head rounded quadrangular to slightly trapezoid, 1.2–1.3 times as wide as long; eyes slightly prominent, 1.1–1.6 times as long as subparallel to slightly convergent tempora; medial interocular punctures separated by about twice the distance between medial and lateral interocular punctures; disc of head impunctate, but with a group of 4–5 larger punctures around medio-posterior margin of eye; tempora with a broad portion behind posterior margin of eye glabrous, remaining portion moderately densely punctate, pubescence yellowish; antennae short, segments 4–10 of about equal length, about as long as wide, segments 5–10 distinctly asymmetric, serrate; surface of head with dense and strong wavy microsculpture causing distinct iridescence, in addition, with exceedingly fine micropunctuation; pronotum 1.05–1.13 times as wide as long, almost regularly convex in basal half, narrowed anteriorly in almost straight line; anterior angles strongly produced anteriorly beyond course of lateral line; dorsal rows each with four equidistant punctures, the one or the other additional puncture rarely occurs; surface with dense but fine wavy microsculpture; elytra along suture (from basal line of scutellum to sutural angle) about as long as pronotum along midline, densely punctate, punctures separated by about a puncture diameter or slightly more in transverse direction; abdominal tergites very finely and densely punctate, less densely on tergite III; surface between punctures with microstriae, tergites thus slightly matt; tergites III–VI with two basal lines, that on tergite VI sometimes weakly developed, rarely even with a fine second line on tergite VII; elevated area between basal lines very finely, rather irregularly punctate; dorsal face of metatarsomeres 1–4 less distinctly flattened than in the other species.

Aedeagus (Fig. 31) with median lobe very slender; paramere (Fig. 31c) very long, slightly widened subapically, apex very sharply pointed; with numerous peg setae arranged in two irregular, longitudinal, badly delimited clusters.

DISTRIBUTION: The species is at present known only from North Vietnam and South China (Hongkong).

ETYMOLOGY: It is a pleasure to dedicate yet another species to Stewart Peck whose invaluable field activities have already yielded a plethora of interesting species, including the major part of the type series of the species described above.

Taxiplagus borneensis sp.n.

Holotype ♂: “E-Malaysia: Sabah, Batu Punggul Res. env., 24.6.-1.7.1996 (11f), flight intercept trap” (NMW). – **Paratypes** (16 exs.): 1 ♂, 1 ♀: same data as holotype (NMW); 1 ♂, 2 ♀♀: same data as holotype but “11c, vegetation debris and forest floor litter accumulated around large trees near river” (NMW); 1 ♂: Malaysia, Sabah, ca. 25 km S Sapulut, Batu Punggul env., primary forest, intercept [sic] trap, 23.5.2001, J.F. Kočiam lgt.” (NMW); 1

♀: "Sabah, Kinabalu N.P., VII.82, Rougemont" (CRL); 1 ♂: "MALAYSIA, Borneo, Sabah, Ulu Segama Forest Reserve, Danum Valley Conservation area, 4.IV.2005, F.I. Trap, primary forest, W of ca. N 04°57.93 E 117°48.15, plot 2, Leg. E. Slade + J. Villanueva \ Rougemont collection" (CRL); 1 ♂, 1 ♀: "MALAYSIA: Sabah, Lahad Datu, Ulu Segama For. Res., Danum Valley Forest Center, 04°57.9N 117°48.1E, 200m alt. \ xi.2005, 1° Forest, FIT, coll. Mann, Slade & Villanueva, OUMNH-2006-051" (CRL, NMW); 1 ♀: "MALAYSIA: Sabah, Lahad Datu, Ulu Segama For. Res., Borneo Rainforest Lodge, 250m, 05°02.682'N 117°45.553'E, iii-iv.2005, 1° Forest, FIT, coll. E. Slade & J. Villanueva \ Flight Interception Trap, dipterocarp forest, Danum Valley Conservation Area, OUMNH-2005-062" (CRL); 2 ♂♂, 2 ♀♀: "INDONESIA, Borneo, Kalimantan Tengah, Busang / Rekut confl., 0°03'S, 113°59'E \ Flight Intercept FIT 6 [9 resp.], Brendell / Mendel, August 2001 \ Barito Ulu 2001', BMNH(E), 2001-191 [erroneously identified as *T. abnormalis*]" (3 BMNH, 1 NMW); 1 ♂: "FIT 3/3/4 \ Malaysia, Sabah, Sandakan S Lolan (LF), March 97, AYC Chuna \ Sta 13" (BMNH).

DESCRIPTION (Habitus: Fig. 3): 12.0–16.7 mm (6.1–8.2 mm, abdomen excluded). – Head black, antennae entirely reddish brown; labrum reddish, mandibles reddish brown, medial margins and tips of mandibles narrowly blackish; palpi reddish; pronotum, elytra and abdominal segments III–VII and proximal third of segment VIII darker to brighter orange red, distal two thirds of segment VIII black to dark brown, styli of tergite IX black with paler brownish bases, segment X reddish brown; legs reddish, frequently with medial faces of metatibiae, and meso- and metatarsi infuscate.

Head rounded quadrangular, 1.19–1.23 times as wide as long; eyes longer than or about as long as tempora in small to medium sized specimens (eye:temple = 1.03–1.29:1), slightly shorter in large specimens (0.95:1), tempora parallel to slightly convergent; medial interocular punctures separated by about 1.5 times the distance between medial and lateral interocular punctures; lateral portions of dorsal surface of head and tempora with moderately dense but coarse punctation, along midline (between levels of medial interocular punctures) broadly impunctate between clypeus and neck; pubescence of tempora golden yellow; surface of head with dense and strong wavy microsculpture, causing distinct iridescence; antennae (Fig. 17) with segments 4–10 about as long as wide, serrate; distal three fourths of antennomeres 1 and 2 with distinct striate microsculpture, intersegmental pieces of antennomeres 4–11 slightly elongate, with distinct striate microsculpture; pronotum 1.05–1.10 times as wide as long, widest at about basal third; sides markedly sinuately emarginate in front of hind angles (Fig. 15), anterior angles rather acute, strongly produced anteriad, in semilateral view distinctly covering superior lateral line (Fig. 14); dorsal rows each with six (rarely seven) slightly irregular punctures; surface with dense but fine wavy microsculpture; elytra along suture (from basal line of scutellum to sutural angle) about as long as pronotum along midline, densely punctate, punctures separated by about a puncture diameter in transverse direction; abdominal tergites very finely and densely punctate, less densely on tergite III, surface between punctures with very indistinct microstriae; tergites III and IV with transverse basal depression; tergites III–VI with two basal lines, that on tergite VI sometimes weakly developed in middle; elevated area between basal lines very finely, rather irregularly punctate.

Aedeagus (Fig. 29) with median lobe rather slender, lateral outline weakly convex, apex somewhat spatula-shaped in ventral view; in lateral apical portion strongly bent dorsad, broad and flattened; paramere (Fig. 29c) long, broad, almost covering median lobe, with numerous peg setae arranged in two longitudinal, well delimited subapical clusters.

DISTRIBUTION: The species is at present known only from Kalimantan (Indonesia) and Sabah (East Malaysia) on the island of Borneo.

ETYMOLOGY: The species is named after the place of origin.

Taxiplagus fasciatus sp.n.

Holotype ♂: “Malaysia, Sabah, ca. 25 km S Sapulut, Batu Punggul env., primary forest, intercept [sic] trap, 23.5.2001, J.F. Kočiam lgt.” (NMW). – **Paratypes** (7 exs.): 2 ♂♂: same data as holotype (NMW); 1 ♂: “SABAH, Kinabalu N.P., 25.VII.1982, de Rougemont” (CRL); 1 ♂: “SABAH, Danum Valley BRL, Fit, 14-16.II.2007, G. de Rougemont” (NMW); 1 ♂: “MALAYSIA: Sabah, Lahad Datu, Ulu Segama For. Res., Danum Valley Forest Center, 04°57.9N 117°48.1E, 200m alt. \ xi.2005, 1° Forest, FIT, coll. Mann, Slade & Villanueva, OUMNH-2006-051” (CRL); 1 ♀: “Ground Malaise 13, 440m alt, 8.ii.92, N. Mawdsley NM299 \ BRUNEI E116 7' N4 34', Kuala Belalong FSC, Dipterocarp forest, BM(NH) 1991-173 \ 2345” (BMNH); 1 ♂: “BRUNEI: Rampayoh R., Upper waterfall, 1-4.III.1982, M.C. Day \ Brit. Mus. 1983-75” (BMNH).

DESCRIPTION (Habitus: Fig. 4): 10.3–13.5 mm (5.3–6.3 mm, abdomen excluded). – Head black, antennae with basal two segments reddish yellowish, segment 3 darker, reddish, segments 4–10 black, segment 11 dark reddish to reddish brown, sometimes also segment 10 reddish brown; labrum reddish, mandibles reddish brown, medial margins and tips of mandibles narrowly blackish; palpi reddish; pronotum, elytra and abdominal segments III–VI bright orange red, segments VII and VIII black with anterior and posterior margins broadly reddish yellow; sternite IX and tergite X yellow, styli of tergite IX black in distal half, yellowish in proximal half; legs yellowish, meso- and metatarsi darker reddish.

Head rounded quadrangular, 1.14–1.18 times as wide as long; eyes slightly longer than tempora in small specimens (eye:temple = 1.13:1), about as long as wide or shorter in medium sized and large specimens (0.81–1.03:1), tempora parallel; medial interocular punctures separated by 2.5–3 times the distance between medial and lateral interocular punctures; lateral portions of dorsal surface of head and tempora with moderately dense but coarse punctation, along midline (between levels of medial interocular punctures) broadly impunctate between clypeus and neck; pubescence of tempora golden yellow; surface of head with dense and strong wavy microsculpture, causing distinct iridescence; antennae short, segments 4–10 slightly wider than long, serrate; pronotum 1.14–1.16 times as wide as long, widest at about basal third; sides almost regularly convex in front of hind angles, anterior angles rounded but strongly produced anteriorly, in semilateral view distinctly covering superior lateral line; dorsal rows each with four equidistant punctures; surface with dense but fine wavy microsculpture; elytra along suture (from basal line of scutellum to sutural angle) slightly longer than pronotum along midline, densely punctate, punctures separated by about a puncture diameter in transverse direction; abdominal tergites very finely and densely punctate, less densely on tergite III, surface between punctures with very indistinct microstriae; tergite III with transverse basal depression; tergites III–V with two basal lines, tergite VI without or very weakly developed second basal line; elevated area between basal lines very finely, rather irregularly punctate.

Aedeagus (Fig. 30) with median lobe slender, flame-shaped, apical portion very narrow and rather sharply pointed; paramere (Fig. 30c) with very slender base, apical portion markedly widened, apex very sharply pointed; with numerous peg setae arranged in one dense subapical cluster.

DISTRIBUTION: The species is at present known only from Brunei and Sabah (East Malaysia) on the island of Borneo.

ETYMOLOGY: The specific epithet refers to the banded color pattern of the abdominal segments VII and VIII.

Taxiplagus ater sp.n.

Holotype ♂: “E-MALAYSIA: Sabah, Batu Punggul Resort env., 24.6.-1.7.1996 (11 f), flight intercept trap” (NMW). – **Paratypes** (45 exs.): 13 exs. with same data as holotype (2 NMW, 11 MHNG); 1 ex. ibidem, but “(11 c), vegetation debris and forest floor litter accumulated around large trees near river” (NMW); 21 exs.: “Malaysia, Sabah, ca. 25 km S Sapulut, Batu Punggul env., primary forest, intercept [sic!] trap, 23.05.2001, leg. J. F. Kočiam”

(19 NMW, 2 ZMUC); 1 ex.: "SABAH, Kinabalu N.P., 25.VII.1982, de Rougemont" (CRL); 1 ex.: "Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont" (CRL); 1 ex.: "MALAYSIA, Borneo, Sabah, Ulu Segama Forest Reserve, Yayasan Sabah Logging Concession, ca. 10 km from Danum Valley F.C. \ Secondary selectively logged forest, 17.IV.2004, F.I. Trap, Coupe 81, Plot 3, ca. N 04°58.66 E 117°53.41, Leg. E. Slade + J. Villanueva \ Rougemont collection" (CRL); 1 ex.: ibidem, but "13.IV.2004, Coupe 88, ca. N 04°59.74 E 117°50.17" (CRL); 6 exs.: "MALAYSIA: Sabah, Lahad Datu, Ulu Segama For. Res., Danum Valley Forest Center, 04°57.9N 117°48.1E, 200m alt. \ xi.2005, 1° Forest, FIT, coll. Mann, Slade & Villanueva, OUMNH-2006-051" (CRL).

DESCRIPTION (Habitus: Fig. 5): 7.5–9.0 mm long (4.1–4.4 mm long, abdomen excluded). – Entirely black, only distal halves of last segments of palpi, tips of or entire last tarsomeres paler brownish, claws reddish, pubescence black.

Head rounded quadrangular, 1.18–1.25 times as wide as long, eyes large, moderately protruding, 1.6–1.9 times as long as subparallel tempora; dorsal surface of head with macrosetae originating from almost pit-like punctation, medial interocular punctures separated by twice the distance between medial and lateral interocular punctures; between medial and lateral interocular punctures often with a variable number of finer punctures, tempora densely and rather coarsely punctate; antennae with segment 4 about as long as wide, remaining segments slightly increasing in length, segments 4–9 moderately serrate; pronotum 1.05–1.09 times as wide as long, sides almost regularly convex, more distinctly narrowed anteriorly than posteriorly; anterior angles rounded, moderately produced anteriorly, in semilateral view covering only small portion of superior lateral line; dorsal rows each with 5–6 slightly irregular punctures; head and pronotum with dense and fine wavy microsculpture, causing strong iridescence on pronotum; elytra along suture (from basal line of scutellum to sutural angle) slightly shorter than pronotum along midline, finely and densely punctate, punctures separated by about a puncture diameter in transverse direction; punctation of scutellum similar to that of elytra but denser and slightly asperate, punctures almost contiguous in transverse direction; abdominal tergites very finely and very densely punctate, punctures almost contiguous in transverse direction; tergites III–V with two basal lines, elevated area between basal lines finely and densely punctate.

Aedeagus (Fig. 32) with median lobe slender, apical portion almost parallel-sided in basal half, narrowed distad in almost straight line, apex rather sharply pointed apex; paramere (Fig. 32c) very long, slender, with two long rows of peg setae meeting at apex.

DISTRIBUTION: The species is at present known only from the island of Borneo (E-Malaysia, Sabah).

ETYMOLOGY: The name refers to the black color of the species.

Taxiplagus termitophagus (CAMERON) **comb.n., stat.n.**

Quediosoma termitophaga CAMERON 1926: 367; CAMERON 1932: 257 (synonym of *Q. sericoilium*).

Lectotype ♂ (here designated): "Syntype [round label with blue margin] \ Dehra Dun. Dr. M. Cameron 4/3 1921. \ M.Cameron. Bequest. B.M. 1955-147 \ Type *Quediosoma termitophaga* Dr. Cameron" (BMNH). – **Paralectotypes** (2 exs.): "Dehra Dun. Dr. Cameron. 28-2-1922. \ M. Cameron. Bequest. B.M. 1955-147." (BMNH).

REMARK: Cameron did not specify the number of type specimens. In face of the striking similarity with the following species, it was necessary to designate a lectotype to avoid future confusions.

REDESCRIPTION (Habitus: Fig. 1): 8–9 mm long (3.8–4.1 mm long, abdomen excluded). – Head black-brown, or very dark reddish brown with blackish portions on vertex (head may be black in fresh specimens); mouthparts reddish, antennae reddish, tip of segment 3 and entire segments 4–7 somewhat darker brownish; pronotum dark reddish brown to dark brown, all margins narrowly but distinctly reddish; elytra bright reddish to brownish yellow, scutellum markedly darker; abdominal segments dark reddish brown to black brown, segments III and IV usually markedly paler reddish, medio-basally darkened to various extent, remaining segments

almost entirely dark brown but with posterior margins distinctly reddish; legs entirely bright reddish. REMARK: Since all specimens studied are historical, the color might differ slightly in fresh material.

Head rounded quadrangular, about 1.20 times (females) or about 1.25 times (males) as wide as long, eyes large, 1.4 (larger specimens) – 1.7 (smaller specimens) times as long as subparallel tempora; four interocular punctures equidistant; with a slightly oblique longitudinal row of 3–4 punctures between impunctate vertex and medial margin of eye; tempora with rather dense and fine ground pubescence; antennae with segments 4–10 about as long as wide, serrate, segments 4 and 10 weakly, segments 5–9 distinctly; pronotum slightly wider than long (ratio 1.10–1.14), sides weakly convex, more distinctly narrowed anteriorly than posteriorly, very rarely with a hint of concave sinuation in front of posterior angle; anterior angles rounded, not produced anteriorly, superior lateral line entirely visible in semilateral view; dorsal rows each with five more or less regularly spaced punctures; head and pronotum with very dense and fine wavy microsculpture, causing iridescence, particularly on pronotum; elytra moderately long, along suture (from base of scutellum to sutural angle) slightly longer than pronotum along middle; surface moderately strongly, densely punctate, punctures separated by about a puncture diameter in transverse direction; scutellum with punctation similar to that of elytra but slightly asperate, between punctures with fine microsculpture of transverse waves; abdominal tergites finely and densely punctate and pubescent, pubescence yellow; tergites III–V with two basal lines, elevated area between basal lines finely, moderately densely punctate; male sternite VIII: Fig. 38; male sternite IX: Fig. 39.

Aedeagus (Fig. 35) small, median lobe with rather blunt apex both in ventral and lateral view; paramere (Fig. 35c) slender, parallel-sided, apex sharply pointed; with two long, very irregular rows of peg setae.

ADDITIONAL MATERIAL EXAMINED:

I N D I A: UTTARAKHAND: 2 exs.: "In broken termite comb \ Haldwani Dist., Kumaon, India. H.G.C. \ *Quediosoma sericoilius* Cam. \ *Quediosoma termitophaga* det. Cameron \ G.C. Champion coll. B.M. 1927-409." (BMNH); 2 exs.: similar label data, but "H.G. Champion Coll. B.M. 1953-156." (NMW).

DISTRIBUTION: The species is at present known only from Uttarakhand Province in northern India.

Taxiplagus sericoilius (CAMERON) comb.n.

Philonthus sericoilius CAMERON 1920: 216.

Quediosoma sericoilium: CAMERON 1932: 257.

Holotype ♂ (by monotypy): "Type H.T [round label with red margin] \ Nilgiri Hills. H.L. Andrewes. Yaino 3500 ft. \ *Philonthus sericoilius* Cam. \ M.Cameron. Bequest. B.M. 1955-147." (BMNH).

DIAGNOSIS: Assuming that the variability potential in this genus also applies to this and the previous species, *T. sericoilius* may be difficult to distinguish from *T. termitophagus* externally. The only two known specimens of *T. sericoilius* differ substantially in size and head shape. The male holotype is a small specimen (7.5 mm long; 3.8 mm without abdomen) and has a rather flat head with rather prominent eyes, and with the characteristic small tempora (eye/template ratio 1.8) which are distinctly convergent; the second specimen (male) is larger (9.5 mm long; 4.5 mm without abdomen) and has a more convex head with eyes hardly prominent, and with longer tempora (eye/template ratio of 1.4). The only external difference which may be useful for separating the two species is that in *T. sericoilius* the distance between the medial interocular punctures is markedly wider than the distance between medial and lateral interocular punctures. Other subtle differences, like the broader head (1.3 times as wide as long) in *T. sericoilius* and

the slightly darker head and pronotum are regarded as not sufficiently significant until more material becomes available.

Aedeagus (Fig. 34) similar to that of *T. termitophagus*, but median lobe with rather acute apex, both in ventral and lateral view; paramere (Fig. 34c) less slender, with two long, almost regular admedian rows of peg setae.

Female unknown.

ADDITIONAL MATERIAL EXAMINED:

I N D I A: MAHARASHTRA: Western Ghats, Poone Dist., Wai env., 1100 m, 3.–7.XI.2005, leg. Vorišek (1 ♂, NMW).

DISTRIBUTION: The species is at present known only from central and southwestern India.

Taxiplagus siamensis sp.n.

Holotype ♂: “NW Thailand, 19.19N, 97.59E, Mae Hong Son, 1991, Ban Huai Po, 1600–2000 m, 9.-16.5., L. Dembicky leg.” (NMW).

DESCRIPTION (Habitus: Fig. 2): 7.7 mm long (3.9 mm long, abdomen excluded). – Head black, mouthparts reddish, second segment of maxillary palpi dark brown, medial margin of mandibles very narrowly infuscate; antennae with segment 1 reddish, segment 2 black with base broadly reddish, segments 3–9 black, segments 5–9 with distal margin narrowly reddish, segments 10 dark brown with reddish distal margin, segment 11 with proximal half dark brown and distal half reddish; pronotum dark reddish brown with two blackish patches in anterior two thirds laterad of dorsal rows; elytra bright brownish yellow, basal depression reddish, scutellum darker, reddish brown; abdomen with segments II and IV dark reddish brown, segments V–VIII black brown, anterior and posterior margins of segments III–VII moderately broadly, obscurely reddish, more distinctly reddish on segment VII, segment VIII with broadly reddish base; legs with femora yellowish, tibiae and tarsi reddish, medial faces of hind tibiae slightly infuscate.

Head rounded quadrangular, 1.15 times as wide as long; eyes moderately prominent, 1.8 times as long as slightly convergent tempora; punctation of dorsal surface hardly differing from that of *T. termitophagus* and *T. sericoilius*, medial interocular punctures separated by roughly twice the distance between medial and lateral interocular punctures; between medial and lateral interocular punctures with a longitudinal group of three fine punctures; antennae with segment 4 very short, inconspicuously transverse, segments 5–10 about as long as wide; segments 5–8 discernibly serrate, segments 9 and 10 very weakly serrate; pronotum as long as wide, subparallel-sided; anterior angle similar to that of *T. termitophagus* and *T. sericoilius*; dorsal rows each with six almost regular punctures; head and pronotum with fine and dense wavy microsculpture, extremely fine on pronotum, causing some iridescence; elytra along suture (from base of scutellum to sutural angle) as long as pronotum along midline; surface moderately strongly, densely punctate, punctures separated by about a puncture diameter in transverse direction; scutellum as densely punctate as elytra but punctures very slightly larger, not asperate; punctation of abdominal tergites as in *T. termitophagus* and *T. sericoilius*.

Aedeagus (Fig. 33) similar to that of *T. termitophagus* but with broader apical portion of median lobe in lateral view; paramere (Fig. 33c) shorter, not parallel-sided, peg setae more regularly arranged.

Female unknown.

DIAGNOSIS: Among the small species of this genus, *T. siamensis* is easily recognized by the long and subparallel-sided pronotum.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named after the country of its origin, Siam being the old name of Thailand.

***Taxiplagus minahasa* sp.n.**

Holotype ♂: "INDONESIA: SULAWESI UTARA, Dumoga Bone N.P., March 1985 \ Plot C, ca. 400 m, Lowland forest \ Flight interception trap \ R.Ent.Soc.Lond., Project Wallace, B.M. 1985-10" (BMNH). – **Paratypes** (7 exs.): 1 ♂, 2 ♀♀: same data as holotype (2 NHML, 1 NMW); 1 ♂, 1 ♀: same data as holotype but February 1985 (BMNH, NMW); 2 ♂♂: same data as holotype but April 1985 (BMNH).

DESCRIPTION (Habitus: Fig. 6): 10.8–11.5 mm long (4.8–5.6 mm long, abdomen excluded). – Head and neck black, frons, a narrow stripe along midline and neck sometimes to variable extent obscurely reddish; antennae entirely dark reddish brown to reddish testaceous, sometimes appearing somewhat darker around middle; mandibles dark reddish with dark brown to blackish tips; palpi entirely reddish; pronotum, elytra and first four visible abdominal segments dark orange red to brownish red, abdominal segment VII in apical half (badly delimited) and segment VIII almost entirely dark brown; legs entirely reddish brown.

Head rounded quadrangular to very slightly trapezoid, 1.05–1.09 times as wide as long; eyes large 1.24–1.38 (in one larger male 1.12) times as long as subparallel to slightly convergent tempora; medial interocular punctures separated by more than twice the distance between medial and lateral interocular punctures, disc mostly impunctate, laterally and posteriorly, between about posterior third of eye and neck with a group of a few loosely arranged larger punctures, partly forming a slightly oblique longitudinal row; tempora sparingly punctate; surface of head with extremely fine and dense microsculpture of transverse waves; antennae very short, segments 4–10 markedly wider than long, serrate; pronotum about as long as wide, widest at about midlength, sides inconspicuously narrowed posteriad in almost straight line, markedly narrowed anteriad, hind angles comparatively well marked; anterior angles strongly produced beyond level of superior lateral line; dorsal rows each usually with five slightly irregular punctures, rarely with an additional puncture on one or the other side; microsculpture almost as on head; elytra along suture (from base of scutellum to sutural angle) shorter than pronotum along midline (ratio about 0.9), densely punctate, punctures separated by about a puncture diameter in transverse direction; abdominal tergites extremely finely punctate, very densely on tergites V–VIII with punctures being almost contiguous, less densely on tergites III and IV; tergites III–V with two basal lines, elevated area between basal lines finely, almost uniformly punctate.

Aedeagus (Fig. 28) short, very broad and flat; paramere (Fig. 28c) very unusual for Asian *Taxiplagus*, bifurcate, lobes widely separated, each lobe with about ten peg setae situated subapically near medial margin.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific epithet, a noun in apposition, refers to the people inhabiting northern Sulawesi.

***Pseudomoeocerus* CAMERON**

Pseudomoeocerus CAMERON 1950: 23.

Typus generis: *P. malayanus* CAMERON, 1950.

DIAGNOSIS: The genus shares most characters with *Taxiplagus* except for the short antennae with virtually symmetrical antennomeres, the broad process of the mesoventrite (Fig. 12), the straight base of the elytra forming rather sharp humeral angles, and the short, not elongate hind

tarsi. The distinct and long postmandibular ridge occurs in at least one species of *Taxiplagus*, too, and seems to be a variable character. The symmetrical and short antennae are shared with the Afrotropical genus *Pseudophilonthus* BERNHAUER, 1915 (*P. bicoloripennis* BERNHAUER, 1915), but the latter differs by the long and slender, not flattened meso- and metatarsomeres.

Pseudomoeocerus malayanus CAMERON

Pseudomoeocerus malayanus CAMERON 1950: 23.

Holotype ♀ (by monotypy): "Holotype [round label with red margin] \ MALAYA Selangor-Pahang border 2000' Jan. 1st 1940 \ *Pseudomoeocerus malayanus* Cam. TYPE \ M.Cameron. Bequest. B.M. 1955-147." (BMNH).

REDESCRIPTION (Habitus: Fig. 7): 8.7 mm long (4.1 mm long, abdomen excluded). – Head (including mandibles) and pronotum dark reddish brown, palpi pale reddish, antennae reddish testaceous, segment 3 distally, and segments 4–8 basally narrowly infusate; elytra bright reddish brown; abdominal segments dark reddish brown, posterior margin broadly reddish, segments VI–VIII with broad reddish base, reddish color becoming more yellowish on segments VII and VIII, legs reddish.

Head slightly rounded trapezoid, 1.4 times as wide as long, widest at half length of tempora, eyes rather large, hardly protruding, tempora about 1.1 times as long as eyes, slightly widened behind eyes, from about midlength narrowed toward hind angles in shallow arc, hind angles weakly marked but discernible; medial interocular punctures separated by about 1.5 times the distance between medial and lateral interocular puncture; with an additional transverse row of four punctures at level of posterior margin of eyes, medial punctures separated by almost three times the distance between medial and lateral puncture; surface rather shiny, with very fine and dense microsculpture of mostly transverse waves, in addition with exceedingly fine and sparse micropunctuation; antennae very short, segments 2 and 3 only slightly longer than wide, segment 3 depressed, segments 4–10 distinctly transverse, about twice as wide as long; pronotum about 1.2 times as wide as long, widest at about midlength, narrowed anteriorly in almost straight line, posteriorly an inconspicuous angle may be discerned, base broadly convex, dorsal rows each with two punctures, with an additional large puncture (part of sublateral group) distinctly behind level of second puncture of dorsal row, surface with extremely fine microsculpture of transverse and oblique waves; elytra rather densely punctate, punctures separated by about a puncture diameter in transverse direction, with extensive impunctate area in basal depression reaching toward humeral angle; ground pubescence rather short, yellowish grey (primary setae mostly broken); hind wings developed and functional; abdominal tergites III–V with two basal lines, elevated area between basal lines with a sparse row of fine setiferous punctures close to second basal line, remaining portion of these tergites broadly impunctate at base and narrowly impunctate in front of posterior margin, remaining tergites (VI–VIII) with a transverse row of fine setiferous punctures at base, similar to that of area between two basal lines on tergites III–V, otherwise, punctuation similar to that on remaining portion of tergites III–V, posterior margin of tergite VII with fringe of palisade setae.

Male unknown.

DISTRIBUTION: The species is at present known only from the type locality in Peninsular Malaysia.

Notes on Afrotropical genera

In this chapter, the Afrotropical genera are shortly diagnosed and discussed as well as their generic status fixed. More detailed redescrptions are not within the scope of this paper and will be carried out when the Afrotropical members of the lineage are revised.



Figs. 1–2: Habitus of 1) *Taxiplagus termitophagus*; 2) *T. siamensis*.

***Pseudophilonthus* BERNHAUER stat.n.**

Pseudophilonthus BERNHAUER 1915b: 302.

Philonthus subg. *Pseudophilonthus*: SCHEERPELTZ 1933: 1330.

Typus generis: *Pseudophilonthus bicoloripennis* BERNHAUER, 1915b.

Habitus: Fig. 8.

Of all genera in this lineage, *Pseudophilonthus* most closely resembles *Philonthus* superficially, which is why SCHEERPELTZ (1933) erroneously synonymized the name with *Philonthus*. Within the lineage, the genus is easily recognized by the simple tarsi, which do not show any signs of modification (like the flattened dorsal surface of the meso- and metatarsomeres 2–5 in the

remaining genera), and by the symmetrical antennae, a character that is shared only by the Oriental genus *Pseudomoecerus*. With all Afrotropical genera (except *Taxiplagus*) and with *Pseudomoecerus* it shares the very long postmandibular ridge, which continues well beyond the posterior margin of the eye where it is confluent with the grooves of the large temporal setae.

Aside from the type species of *Nephronthus*, two more species have been described in this genus: *P. subtilicornis* BERNHAUER, 1932 and *P. dollmanni* BERNHAUER, 1934. These two species will most likely have to be assigned to *Taxiplagus*.

***Nephronthus* BERNHAUER stat.n.**

Pseudophilonthus subg. *Nephronthus* BERNHAUER 1932: 147.

Philonthus subg. *Nephronthus*: SCHEERPELTZ 1933: 1330.

Typus generis: *Nephronthus grandis* BERNHAUER, 1932.

Habitus: Fig. 9.

It is difficult to understand why this taxon was described as a subgenus of *Pseudophilonthus* since there is not even a superficial similarity between the two. Scheerpeltz kept it as a separate genus in his collection (as he also did for *Pseudophilonthus*) but nevertheless treated it as a synonym in his supplement to the world catalog (SCHEERPELTZ 1933). In fact, the genus seems more closely related to *Prianophthalmus*.

The genus is distinguished from *Taxiplagus* as follows: antennae with proximal portions of all segments strongly flattened and flattened portions with distinct striate microsculpture; in addition, flattened portions on segments 4–11 sharply delimited from unflattened distal portion; antennomeres 4–10 serrate as in *Taxiplagus*; last segment of maxillary palpi more than half as long as penultimate segment, bearing several fine setae; pronotum with superior lateral line extending slightly beyond anterior angle, then abruptly bending ventrad, meeting anterior margin at about level of lateral outline of neck; femora and tibiae of mid and hind legs strongly flattened, tarsomeres almost as in *Taxiplagus*. For characters separating the genus from *Prianophthalmus*, see there.

Currently, there is only one described species in *Nephronthus*.

***Prianophthalmus* BERNHAUER**

Prianophthalmus BERNHAUER 1932: 155.

Typus generis: *Prianophthalmus hulstaerti* BERNHAUER, 1932.

Habitus: Fig. 10.

The genus shares most characters with *Nephronthus*, but is distinguished from it by the following characters: last segment of maxillary palpi only about half as long as penultimate, posterior portion of eyes markedly shifted mediad toward dorsal surface of head, antennal segments more distinctly serrate, transverse carina of mesoventrite strongly sinuate (almost straight in *Nephronthus*), process of mesoventrite broad, rounded (much narrower and more acute in *Nephronthus*), paratergites very broad (normal in *Nephronthus*), femora and tibiae of mid and hind legs only weakly flattened.

Currently there are two species listed in this genus: *P. hulstaerti* BERNHAUER, 1932 and *P. ferox* FAGEL, 1952.



Figs. 3–4: Habitus of 3) *Taxiplagus borneensis*; 4) *T. fasciatus*.



Figs. 5–6: Habitus of 5) *Taxiplagus ater*; 6) *T. minahasa*.



Figs. 7–8: Habitus of 7) *Pseudomoeocerus malayanus*; 8) *Pseudophilonthus bicoloripennis*.



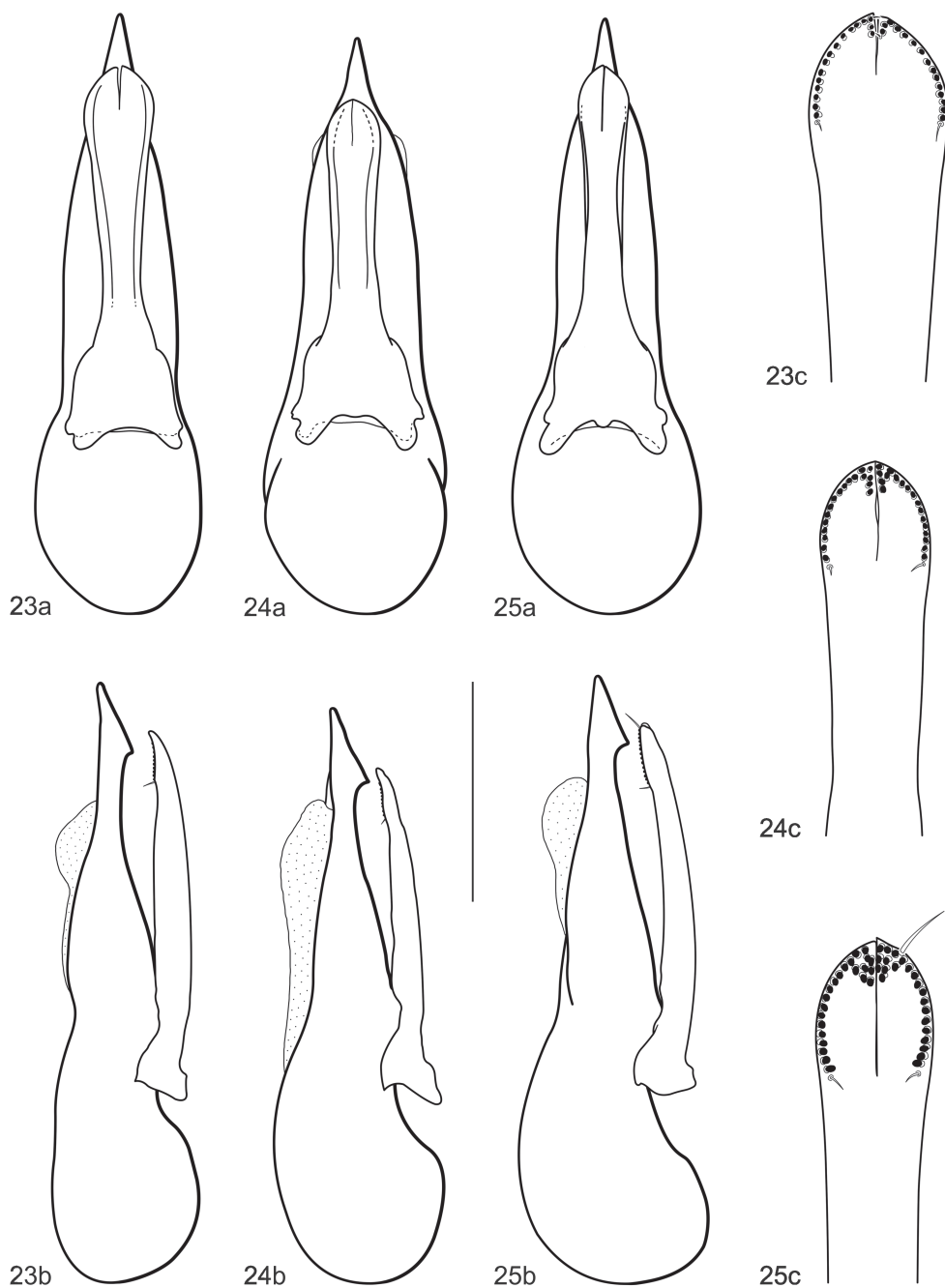
Figs. 9–10: Habitus of 9) *Nephronthus cf. grandis*; 10) *Prionophthalmus hulstaerti*.



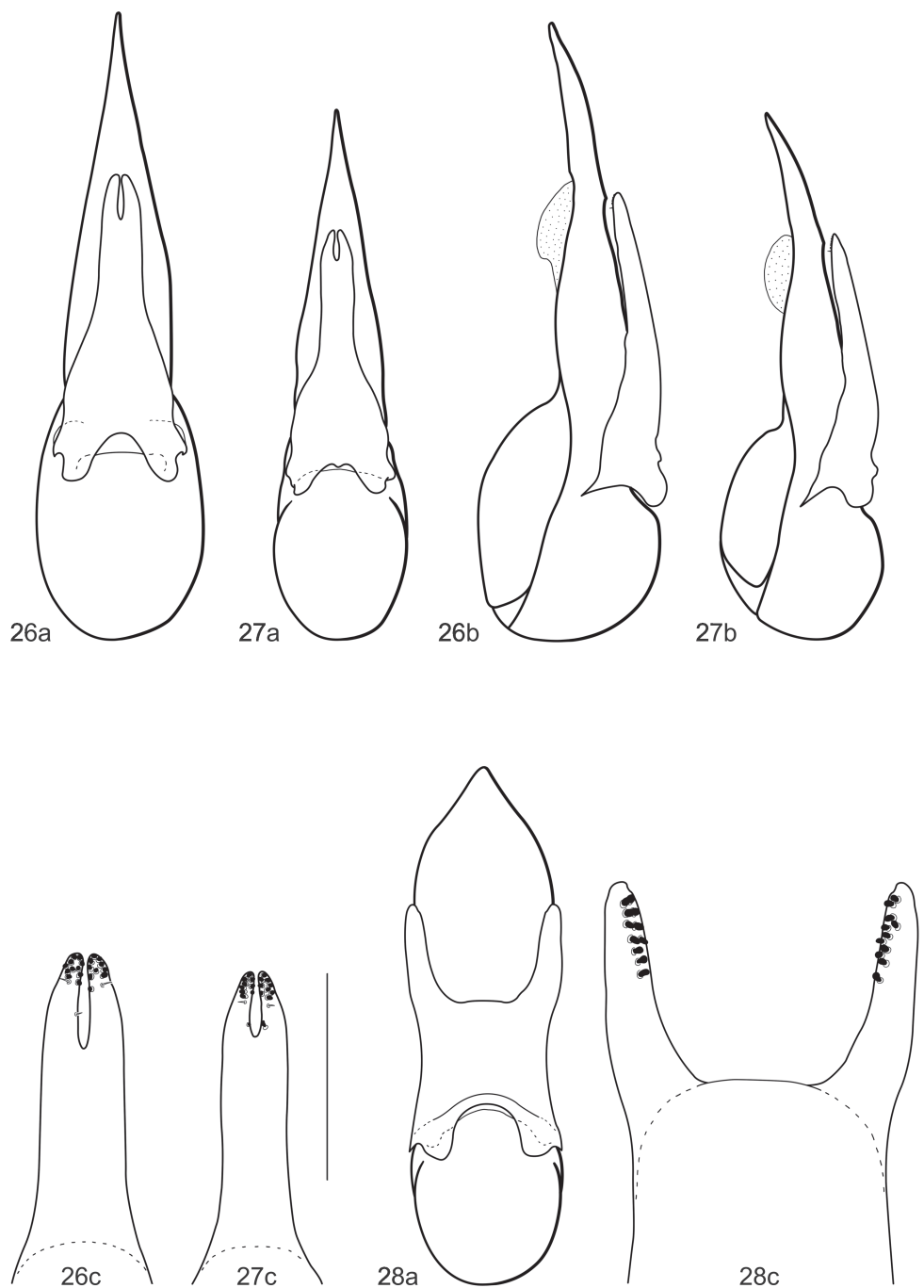
Figs. 11–18: 11–12: Mesoventrite of 11) *Taxiplagus borneensis*; 12) *Pseudomoeocerus malayanus*; 13–14: pronotum (anterior angle, semilateral view) of 13) *T. abnormalis*; 14) *T. borneensis*; 15–16: pronotum (left side, dorsal view) of 15) *T. borneensis*; 16) *T. fasciatus*; 17–18: left antenna of 17) *T. borneensis*; 18) *T. tarasovi*. – Not to scale.



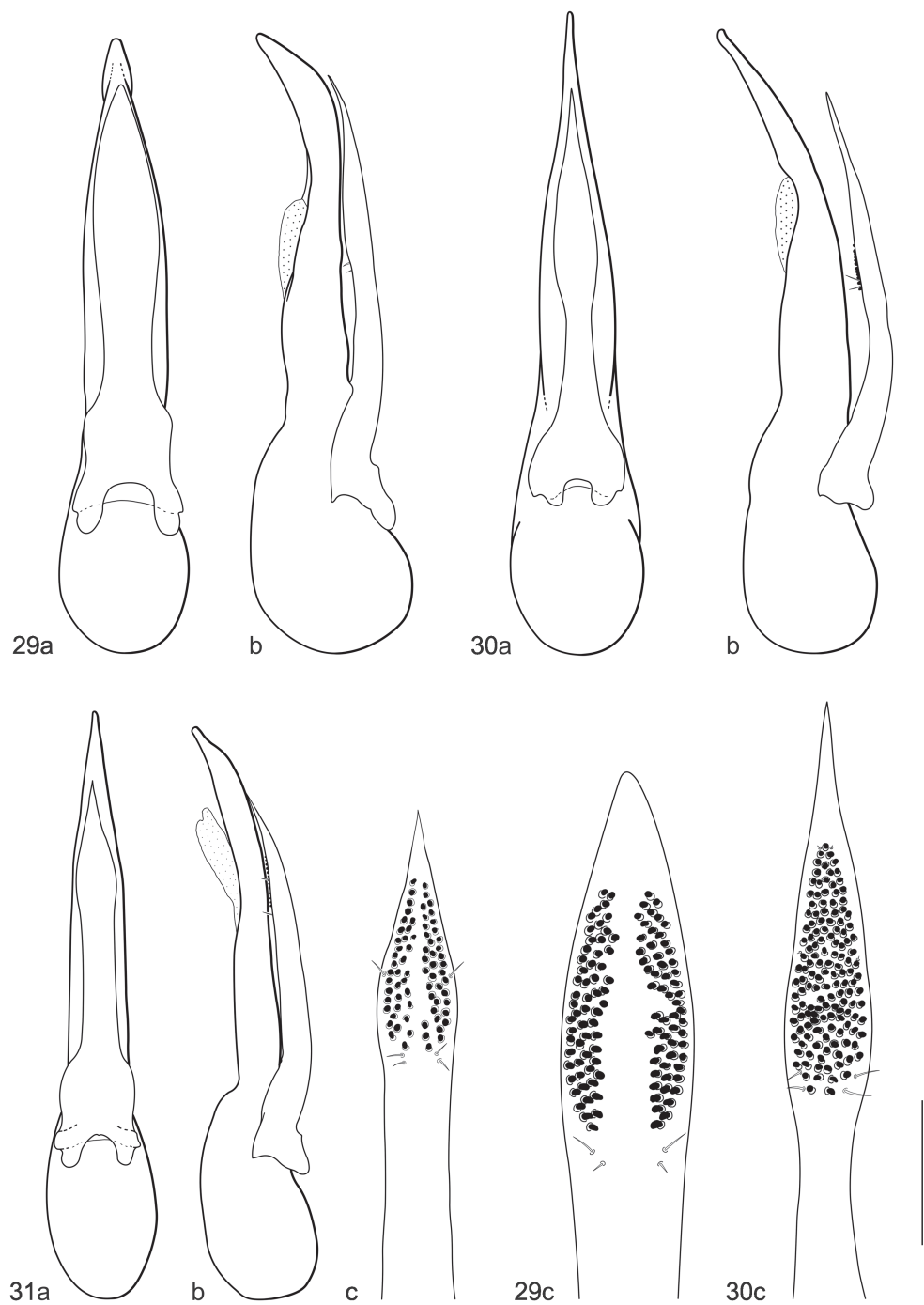
Figs. 19–22: Head of 19–20) *Taxiplagus klapperichi*; 21–22) *T. tarasovi*. – 19, 21) normal sized specimen; 20, 22) large specimen. – Not to scale.



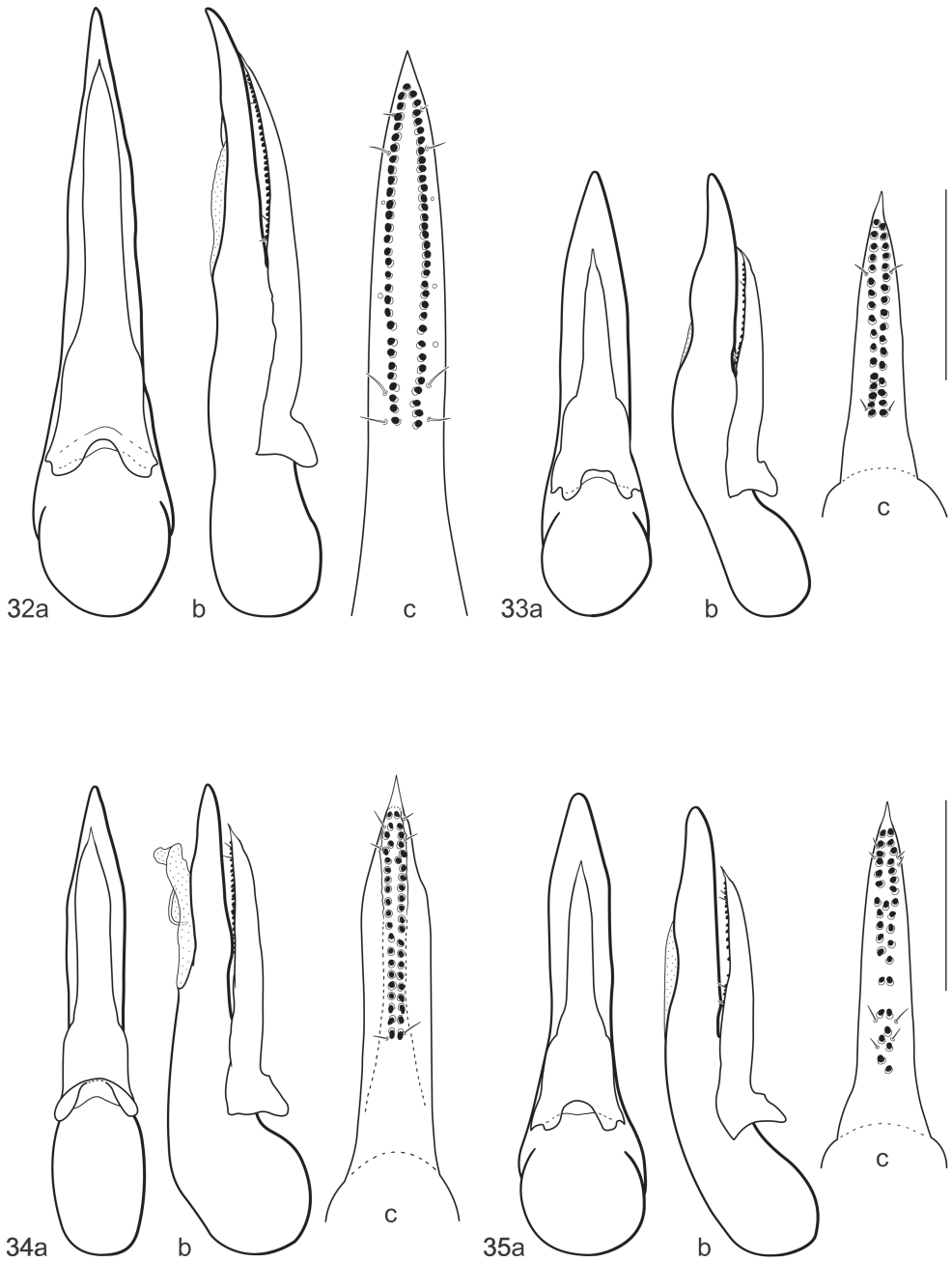
Figs. 23–25: Aedeagus of 23) *Taxiplus abnormalis* (Java, holotype); 24) *T. abnormalis* (Taiwan); 25) *T. klapperichi*. – Scale bar: 1.0 mm (a, b), 0.5 mm (c).



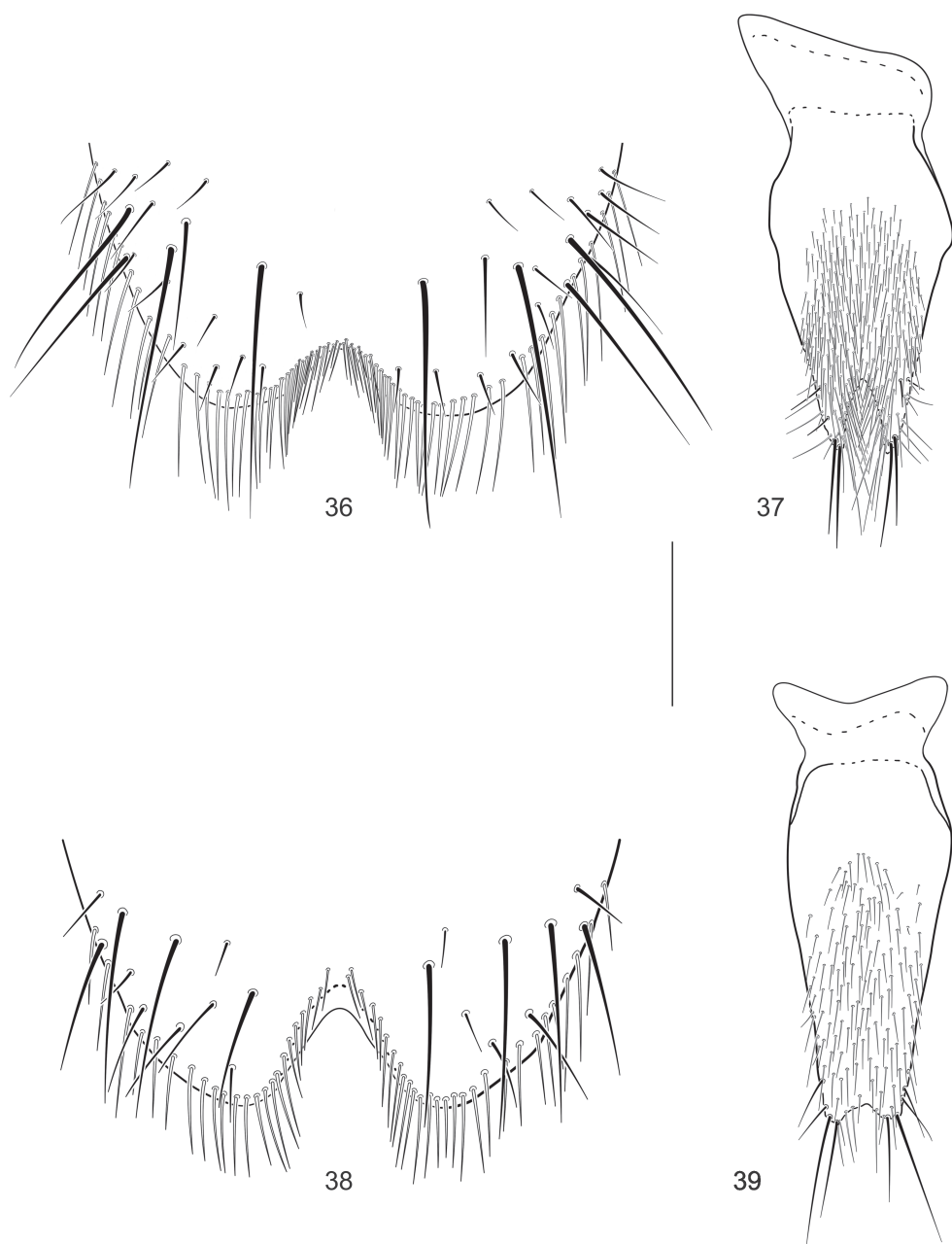
Figs. 26–28: Aedeagus of 26) *Taxiplagus tarasovi*; 27) *T. laosensis*; 28) *T. minahasa*. – Scale bars: 1.0 mm (26a, b, 27a, b); 0.5 mm (26c, 27c); 0.5 mm (28a), 0.25 mm (28c).



Figs. 29–31: Aedeagus of 29) *Taxiplus borneensis*; 30) *T. fasciatus*; 31) *T. pecki*. – Scale bar: 0.5 mm (a, b), 0.25 mm (c).



Figs. 32–35: Aedeagus of 32) *Taxiplagus ater*; 33) *T. siamensis*; 34) *T. sericoilius*; 35) *T. termitophagus*.
– Scale bars: 0.5 mm (a, b), 0.25 mm (c).



Figs. 36–39: Male sternites VIII (36, 38) and IX (37, 39) of 36–37) *Taxiplus klapperichi*; 38–39) *T. termitophagus*. – Scale bar: 1.0 mm (36, 37), 0.5 mm (38, 39).

Afrotropical species of *Taxiplagus*

Since the synonymization of *Prionophilonthus* SCHEERPELTZ, 1974 with *Taxiplagus* by ROUGEMONT (2001), the only Afrotropical species at the moment is *T. cervicornis* (SCHUBERT, 1911). However, preliminary studies on Afrotropical Philonthina have revealed about ten species of *Philonthus* which should be transferred to *Taxiplagus*. This will formally be realized in a future revision of the Afrotropical species of *Taxiplagus*.

Zusammenfassung

Die asiatischen Arten der Gattungen *Taxiplagus* BERNHAUER, 1915 und *Pseudomoeocerus* CAMERON, 1950 werden revidiert. Neun Arten sind neu für die Wissenschaft: *T. ater* (Ostmalaysia), *T. borneensis* (Ostmalaysia), *T. fasciatus* (Ostmalaysia), *T. klapperichi* (China, Laos), *T. laosensis* (Laos), *T. minahasa* (Indonesien: Sulawesi), *T. pecki* (Nordvietnam, China: Hongkong), *T. siamensis* (Thailand), *T. tarasovi* (Laos, Nordvietnam). *Taxiplagus termitophagus* (CAMERON, 1926) – bisher synonym zu *T. sericoilius* (CAMERON, 1920) – wird als valide Art betrachtet. Ein Lectotypus wird für *Quediosoma termitophaga* CAMERON, 1926 designiert. Bestimmungsschlüssel für die Gattungen der *Taxiplagus*-Linie der Alten Welt sowie für die asiatischen Arten von *Taxiplagus* werden bereitgestellt. Die afrotropischen Gattungen werden kurz diskutiert. Die Taxa *Pseudophilonthus* BERNHAUER, 1915 und *Nephronthus* BERNHAUER, 1932 – bisher synonym zu *Philonthus* STEPHENS – werden als eigenständige Gattungen behandelt. Die Aedoeagi aller asiatischen Arten von *Taxiplagus* werden illustriert. Ausgewählte *Taxiplagus*-Arten und Vertreter aller behandelten Gattungen sowie einige wichtige morphologische Details werden in Farbfotos dargestellt.

References

- BERNHAEUER, M. 1915a: Neue Staphyliniden aus Java und Sumatra. – Tijdschrift voor Entomologie 58: 213–243.
- BERNHAEUER, M. 1915b: Neue Staphyliniden des tropischen Afrika. – Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien 65: 287–321.
- BERNHAEUER, M. 1932: Neue Kurzflügler aus dem belgischen Kongostaate. – Revue de Zoologie et de Botanique Africaines 22 (2): 140–174.
- BERNHAEUER, M. 1934: Beitrag zur Staphylinidenfauna Afrika's. – Revue de Zoologie et de Botanique Africaines 24 (3): 228–248.
- CAMERON, M. 1920: New species of Staphylinidae from India. – The Entomologist's Monthly Magazine 56: 141–143, 214–220.
- CAMERON, M. 1926: New species of Staphylinidae from India. Part II. – Transactions of the Entomological Society of London 1925: 341–372.
- CAMERON, M. 1932: The Fauna of British India, including Ceylon and Burma. Coleoptera – Staphylinidae, Vol. III. – London: Taylor & Francis, XIII + 443 pp., 4 pls.
- CAMERON, M. 1937: Fauna Javanica. The Staphylinidae Collected by Mr. F.C. Drescher, Part II. – Tijdschrift voor Entomologie 80: 1–37.
- CAMERON, M. 1950: New Species of Staphylinidae (Col.) from the Malay Peninsula. – Annals and Magazine of Natural History, Series 12, 3: 1–131.
- FAGEL, A. 1952: Contribution à la connaissance des Staphylinidae. XV. Un *Prianophthalmus* nouveau. – Bulletin de l'Institut royal des Sciences naturelles de Belgique 28 (28): 1–5.

- ROUGEMONT, G.M. de 2001: The staphylinid beetles of Hongkong. Annotated checklist, historical review, bionomics and faunistics. – *Memoirs of the Hongkong Natural History Society* 24: 1–146.
- SCHEERPELTZ, O. 1933: Staphylinidae VII. – In Schenkling, S. (ed.): *Coleopterorum Catalogus*, pars 129, Berlin: W. Junk, 989–1500.
- SCHEERPELTZ, O. 1974: Coleoptera aus Nordostafrika, Staphylinidae. – *Acta Entomologica Fennica* 31: 3–49.
- SCHUBERT, K. 1911: Neue exotische Staphyliniden. – *Deutsche Entomologische Zeitschrift* 1911: 1–39.

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