

Critical notes on the subtribe Anisolinina with descriptions of nine new species (Coleoptera: Staphylinidae: Staphylininae)

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Abstract

The paper provides a critical view on the subtribe Anisolinina (Coleoptera: Staphylinidae: Staphylininae), including a tentative reclassification. Fourteen genera are currently included in the subtribe, separated into two lineages: *Anisolinus* lineage (*Amichrotus* SHARP, *Anisolinus* SHARP, *Hesperoschema* SCHEERPELTZ, *Hesperosoma* SCHEERPELTZ, *Misantlius* SHARP, *Philomyceta* CAMERON), and *Tympanophorus* lineage (*Amelinus* BERNHAUER, *Barygnathus* BERNHAUER, *Bombylodes* FAUVEL, *Diatrechus* BERNHAUER, *Pammegus* FAUVEL, *Tolmerinus* BERNHAUER, *Turgiditarsus* SCHILLHAMMER, *Tympanophorus* NORDMANN). Nine new species are described: *Hesperosoma britakaiserae* (Nepal), *H. flavoterninale* (China), *H. klapperichi* (China), *H. meghalayense* (India), *H. mishmiense* (India), *H. puetzi* (China), *Hesperoschema sauteri* (Taiwan), *Misantlius pecki* (Vietnam) and *M. sikkimensis* (India). The subgenus *Paramichrotus* NAOMI of *Hesperosoma* is reestablished. New synonymies: *Paramichrotus* NAOMI (= *Hemihesperosoma* HAYASHI syn.n.); *Philomyceta* CAMERON (= *Montguillonius* COIFFAIT syn.n.); *Barygnathus* BERNHAUER (= *Pseudodysanellus* HAYASHI syn.n.). New reliable records are provided for *Hesperosoma excellens* (BERNHAUER). The genus *Misantlius* is recorded for the first time from Asia. Keys to genera of the *Anisolinus* lineage and to species of *Hesperosoma* s.str. are provided. Photographs show the habitus and body details of selected species. The aedeagi of all new and some already described species are illustrated.

Key words: Coleoptera, Staphylinidae, Staphylininae, Staphylinini, Anisolinina, new species, new synonyms, systematics, taxonomy, nomenclature, key.

Introduction

The description of Anisolinina as a new subtribe of Staphylinini by HAYASHI (1993) was based on very limited material which was evident by the fact that it was based on character states shared by only four genera (*Amichrotus* SHARP, *Anisolinus* SHARP, *Hesperosoma* SCHEERPELTZ and *Tympanophorus* NORDMANN). In several subsequent publications by HAYASHI (2002a-c, 2003) a few more genera (such as *Hesperoschema* SCHEERPELTZ and *Philomyceta* CAMERON) were added. When I described the genus *Tumiditarsus* (SCHILLHAMMER 1996 - later replaced by *Turgiditarsus* SCHILLHAMMER), I mentioned problems in the attempt to assign certain genera to subtribes although regarding them as potential members of the Anisolinina. Several years later (SCHILLHAMMER 2002), I still had only a vague idea on how these genera might be arranged at the subtribe level. SMETANA & DAVIES (2000) provided additional characters to define the Anisolinina, however, their definition was also based only on characters displayed by the genera *Anisolinus* and *Amichrotus*. Finally, HERMAN (2001b) and ASIAIN & MÁRQUES (2003) placed the neotropical genus *Misantlius* SHARP in this subtribe.

Meanwhile, several new species of Anisolinina (including the first representatives of *Misantlius* from Asia) had accumulated in recent accessions of the NMW and in the material submitted for identification. Some of these new taxa posed difficulties at the generic level, therefore I took up

again the formerly abandoned studies to contrive a better definition for Anisolinina that would allow the inclusion of these genera that have as yet been treated only as potential members of this subtribe. As usual with such ventures, I soon found myself hopelessly entangled in the intricate network of higher level classification and, after examining about 100 taxa out of about 30 genera (mainly from Anisolinina and Xanthopygina), I had to accept the fact that a satisfactory solution can be achieved only by means of a comprehensive phylogenetic study of Anisolinina and Xanthopygina on a worldwide basis. However, as a positive result of this search for useful (mostly cryptic) characters, I was able to contrive a key to reliably separate the genera of the *Anisolinus* lineage and to list all genera which, according to our present understanding, should belong to the *Anisolinus* and *Tympanophorus* lineages of Anisolinina.

Acknowledgement and abbreviations

CPE	Coll. A. Pütz, Eisenhüttenstadt
CRL	Coll. G. de Rougemont, London
CSB	Coll. M. Schülke, Berlin
CSO	Coll. A. Smetana, Ottawa
DEI	Deutsches Entomologisches Institut, Eberswalde (L. Zerche)
MHNP	Muséum national d'Histoire naturelle, Paris (N. Berti)
NHML	The Natural History Museum, London (M. Brendell)
NMB	Naturhistorisches Museum, Basel (M. Brancucci)
NMW	Naturhistorisches Museum Wien
NSMT	National Science Museum, Tokyo (M. Maruyama)
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)

Since much of the material treated here has been on loan for a long time I am indebted to the various curators and private collectors for their patience. In addition, I am grateful to Yasuhiko Hayashi and Andreas Pütz for donating specimens to the NMW, and to Aleš Smetana for inspiring phone talks and comments on the manuscript.

Imaging

All photographs (habitus and body details) have been made with a Nikon DIX digital SLR camera (tethered to a PC) in combination with a bellows and a set of various macro lenses (including a Leitz Photar for extreme close-ups). Post-processing was done in Adobe Photoshop 7.0. To achieve sufficient depth of focus, up to ten focal planes were captured which were copied to separate layers, and the out-of-focus areas were masked. Selection and replacing the background was done using the channel mask method.

Systematics

The subtribe Anisolinina as defined by HAYASHI (1993) and redefined by SMETANA & DAVIES (2000) would allow inclusion of only a few genera. Especially the character state of the club-like dilated second segment of the maxillary palpi with the asymmetrical insertion of segment 3 works well only for three genera and, if strictly applied, would exclude other closely related genera. Thus, it was necessary to find additional characters that would work for all potential members of this subtribe. As the study continued, I found out that these respective taxa may be clearly separated into two distinct groups – the *Anisolinus* lineage and the *Tympanophorus* lineage – mainly based on characters of the labial palpi and the structure of the mesosternum.

Anisolinus lineage: segments of labial palpi long and slender, setae along medial margin of segment 2 situated in proximal half; elevated ridge on mesosternum indistinctly bordered,

somewhat crenulated, if sharply bordered then fairly distant from lateral margin of mesosternum, or (as in *Amichrotus*) developed as a narrow longitudinal ridge, basally confluent with mesosternal carina; mandibles long and slender, sickle-shaped, very narrow at base; sternite VII of males with shallow, single or paired, indistinctly bordered fovea bearing dense bunch of setae.

Tympanophorus lineage: segments of labial palpi usually short and stout, last segment often strongly dilated, setae on medial face of segment 2 situated close to apex; elevated ridge on mesosternum sharply bordered, broad, reaching very close to lateral margin of mesosternum; mandibles usually short, stout, broad at base (except some *Tolmerinus*); sternite VII of males with sharply bordered, sometimes strongly modified fovea, or sternite VII without secondary sexual characters (all studied *Amelinus* BERNHAUER).

Another closely studied character was the mandibular prostheca. In all genera of the *Anisolinus* lineage (except *Amichrotus*) the sclerotized basal piece of the prostheca forms a narrow cross-piece over the membranous portion on the medial face near the base of the mandible, obliquely linking the dorsal and ventral face. This crosspiece is seamlessly fused with the dorsal and ventral face in all genera of the *Anisolinus* lineage except in *Misantlius* SHARP and maybe also in *Anisolinus*, but in this genus it is so narrow that it is difficult to interpret. A special case is *Amichrotus*, which has a completely differently shaped base of the mandible: it seems that the ventral and dorsal face of the mandible are fused at the base, covering the basal piece of the prostheca (a similar situation may be observed in *Ocypus* LEACH). This character has not yet been evaluated for the *Tympanophorus* lineage, because in ventral view it is usually covered by the maxilla and can be studied only by completely dismembering the mouthparts. In all studied Xanthopygina (about 90% of the described genera), however, there is always a fine suture visible between the basal piece of the prostheca and the ventral face of the mandible.

The problem I was facing now was to decide between several possible options ranging from establishing a separate subtribe for the *Tympanophorus* lineage on the one hand to dumping Anisolinina within Xanthopygina on the other hand. Therefore, I extended the character analysis to the Xanthopygina and partly also to the other subtribes of Staphylinini. It turned out that the character state of the proximally situated setae on the second segment of the labial palpi of the *Anisolinus* lineage is similarly developed in some genera of Philonthina, especially those that also show some habitual similarity (e.g. most *Hesperus* FAUVEL from the Philippines and New Guinea, *Leucitus* FAUVEL, *Actinus* FAUVEL, *Hybridolinus* SCHILLHAMMER). In addition, these genera also share the character state of the mandibular prostheca being seamlessly fused with the mandible. This latter character is also apparent in *Thoracostrongylus* BERNHAUER of Staphylinina. The phylogenetic relevance of this character remains to be evaluated since it might be an adaptation to a specific feeding habit. The same may be true for the conspicuously modified last segments of the labial palpi in *Tympanophorus* NORDMANN, *Pammegus* FAUVEL and *Barygnathus* BERNHAUER.

The differences in the structure of the mesosternum seem fairly consistent between the *Anisolinus* lineage and the *Tympanophorus* lineage, but there is some overlap between the latter lineage and the xanthopygine genus *Philotalpus* KRAATZ.

As a consequence, the only character state that provides useful means for separating this group from the Xanthopygina is the configuration of the lateral lines of the pronotum with the superior lateral line proceeding on to the anterior margin of the pronotum and the inferior lateral line usually vanishing either at the anterior margin of the procoxal cavity or at the point where the anterior margin of the prosternum meets the pronotal hypomeron. Three genera currently placed in Xanthopygina (*Philotalpus*, *Algon* SHARP and *Rientis* SHARP) also share this character state (the case of *Algon* and *Rientis* will be discussed in more detail in the forthcoming revision of the two genera). However, the state of the visibility of the pronotal disc when viewed from ventrally

(as mentioned by SMETANA & DAVIES 2000) has to be treated in a different way now. In some genera (e.g. *Misantlius*, *Philomyceta*, some *Hesperosoma*, *Barygnathus*) the lateral part of the pronotal disc is visible from ventrally for almost the entire pronotal length, while in genera such as *Tympanophorus* and *Pammegus* the pronotal disc is completely hidden in ventral view, or, as in *Tolmerinus* (as it is currently defined), it is visible to variable extent.

To keep matters as phylogenetically justifiable and as simple as possible, I decided to follow the trend initiated by Hayashi and myself, i.e. to treat the taxa of both lineages as members of Anisolinina, and accept the fact that there will be a few genera that will not perfectly match the currently designed concept. As mentioned in the introduction, however, only the task of a cladistic analysis including all world taxa of Xanthopygina and Anisolinina might lead to a satisfactory solution, which might well be different from what is presented here.

The *Anisolinus* lineage

Amichrotus SHARP, 1889

Anisolinus SHARP, 1889

Blackwelderella LUNDGREN, 1987

Hesperodes SCHEERPELTZ, 1965

Amaurochlamys SCHEERPELTZ, 1965

Hesperoschema SCHEERPELTZ, 1965

Hesperosoma SCHEERPELTZ, 1965

Misantlius SHARP, 1885

Philomyceta CAMERON, 1944

Montguillonius COIFFAIT, 1987 *syn.n.*

Hesperopsis COIFFAIT, 1982

Key to genera of the *Anisolinus* lineage

- 1 Segment 2 of maxillary palpi markedly club-like dilated, insertion of segment 3 distinctly laterally; segment 2 with long and rather dense setae occupying almost entire dorsal surface 2
 - Segment 2 of maxillary palpi less distinctly or hardly dilated, segment 3 inserted in center of apex of segment 2 or only inconspicuously shifted laterad; setation of segment 2 shorter, occupying at most apical half of dorsal surface, usually concentrated on dorso-medial third..... 4
- 2 Medial margin of mandible distinctly emarginate between base and medial tooth, medial tooth thus very prominent; ventral face of mandible without longitudinal furrow along medial margin to accommodate distal portion of mandibular prosthema; prosthema completely exposed, distal portion not attached to mandible..... *Amichrotus*
 - Medial margin of mandible not distinctly emarginate between base and medial tooth, usually more or less straight or with blunt-edged tooth near base; ventral face of mandible with longitudinal furrow along medial margin to accommodate distal portion of mandibular prosthema; prosthema not completely exposed, distal portion attached to mandible..... 3
- 3 Head markedly wider than long, usually of trapezoid shape; segment 2 of maxillary palpi comparatively slender, about 3 - 4 times as long as wide; mesotibia with a few spines (3 - 4), arranged in longitudinal row, most proximal spine sometimes with an additional spine next to it *Hesperoschema*
 - Head usually only slightly wider than long, rounded quadrangular or suborbicular; segment 2 of maxillary palpi exceedingly widened, very short, about twice as long as wide; mesotibia with numerous spines, forming several transverse rows of 3 - 4 spines each..... *Anisolinus*
- 4 First four visible tergites with medio-basal depression laterally bordered by oblique ridges; aedeagus distinctly asymmetrical..... *Philomyceta*

- First three visible tergites with medio-basal depression laterally bordered by more or less distinct oblique ridges; aedeagus more or less symmetrical 5
- 5 Segment 2 of maxillary palpi hardly dilated distally, dorsal face entirely glabrous; four setae along medial margin of second segment of labial palpi arranged in straight row..... *Misantlius*
- Segment 2 of maxillary palpi more distinctly dilated apically, with at least a few fine setae in distal half of dorsal surface; two distal of four setae along medial margin of second segment of labial palpi arranged transversally, situated close to each other, smaller one usually shifted toward ventral face of segment *Hesperosoma*

Notes on some genera of the *Anisolinus* lineage

Hesperosoma SCHEERPELTZ, 1965

Supplementary descriptions of the genus have been provided by HAYASHI (1993, 2002c). Two of the new species described here look quite different from the previously known species, but since the difference only concerns the punctuation of the fore body, no modification of the generic concept is necessary. For recognition of the genus refer to the key.

The genus is currently subdivided into three subgenera. Since these were also based on limited material (see HAYASHI 2002), some additional comments have to be given. One subgenus is even subject to a nomenclatural problem which will be discussed below. The characters given in the key by HAYASHI (2002: 173) may, to a certain extent, be used to distinguish the subgenera, however, some of the additional characters mentioned in the descriptions (p. 172), are highly variable and are not useful to define the subgenera. These are the length and thickness of the subgenal seta and the elytral carinae in the males. The latter character depends on the size of the specimen and is developed characteristically only in large males.

BIONOMIES: Some members of this genus have reportedly been collected from mushrooms growing on decaying trees in rather undisturbed mountain forests where they hunt for all kinds of larvae feeding on the mushrooms. This habitat requirement most likely applies to most members of the *Anisolinus* lineage.

Hesperosoma s.str.

Taxa included: *H. britakaiserae* sp.n., *H. chinense* HAYASHI, *H. flavoterminalae* sp.n., *H. malaisei* SCHEERPELTZ (typus generis), *H. meghalayense* sp.n., *H. mishmiense* sp.n., *H. puetzi* sp.n.

Hesperosoma britakaiserae and *H. mishmiense* have a strikingly different external appearance from the rest of the species. However, as mentioned below (see "Diagnosis" of *H. britakaiserae*), the different punctuation alone is not sufficient to establish another subgenus. This is also supported by the fact that the aedeagi fit well in the generally homogeneous aedeagus shapes throughout the subgenus.

One very characteristic feature of the aedeagi of this subgenus is the pair of lateral, semi-transparent lamellae at the base of the median lobe, situated above the point where the paramere meets the median lobe. This character may best be seen in lateral view. As mentioned above, the aedeagi are very similar to each other, the most obvious differences are the thickness of the median lobe, the curvature of the outline at the side facing the paramere, and the shape of the apical hook (all in lateral view).

Key to species of *Hesperosoma* s.str.

- 1 Fore body rather opaque due to very dense punctation, punctures subumbilicate, almost contiguous..... 2
 - Fore body very shiny, punctation less dense, punctures simple, widely separated..... 5
- 2 Four outer segments of antennae creamy white..... *puetzi*
 - Five outer segments of antennae creamy white 3
- 3 First five visible abdominal segments black, segment VIII (6th visible) entirely yellow.....
 *flavoterninale*
 - First three or four visible abdominal segments reddish 4
- 4 Posterior margin of segment VII and entire segment VIII yellowish *malaisei*
 - Posterior margin of segment VII very narrowly obscurely reddish, segment VIII bicolorous, basal half yellow, posterior half black, on sternite black color variably extending anteriorly, sometimes reaching anterior margin..... *chinense*
- 5 Four outer segments of antennae creamy white; fore body brilliant metallic blue; punctation of head and pronotum exceedingly fine, almost like micro-punctation *britakaiserae*
 - Five outer segments of antennae creamy white; head and pronotum metallic green, elytra metallic magenta-coppery with metallic green shoulders; punctation of head and pronotum stronger, stitch-like but not like micropunctation *mishmiense*

***Hesperosoma malaisei* SCHEERPELTZ, 1965**

The species was sufficiently redescribed by HAYASHI (2002c).

Aedeagus: Figs. 14, 15, 26.

***Hesperosoma chinense* HAYASHI, 2002**

ADDITIONAL RECORDS:

C H I N A: SHAANXI: Qinling, 6 km E Xunyangba, 1000 - 1300 m, 23.V. - 13.VI.2000, leg. C. Holzschuh (NMW); Qinling, 105 km SW Xi'an, pass on road Zhouzhi - Foping, 1990 m, 33°44'N 107°59'E, 2./4.VII.2001, leg. M. Schülke [C01-01] (CSB); Daba shan, 15 km S Shou-Man village, 1800 m, 32°08'N 108°37'E, 25.V. - 14.VI.2000 (NMW); HUBEI: Daba shan, pass E Mt. Dashenongjia, 12 km NW Muyuping, 31°30'N 110°21'E, 1950 m, leg. A. Smetana [C117] (CSO); SICHUAN: valley 5 km N Wenchuan, 2000 m, 3. - 5.VII.2001, leg. S. Murzin (CSB).

Aedeagus: Figs. 16, 17, 27.

***Hesperosoma* (s.str.) *puetzi* sp.n.**

Holotype ♂: "China: Sichuan, Daxue Shan, Gongga Shan Mt., Hailougou [= Hailuogou] glacier park above Camp III, 3000 m, 30.V.1997, leg. A. Pütz" (NMW).

Paratypes (6 exs.): 2 ♂♂ with same data as holotype (NMW, CPE); 1 ♂, 1 ♀: "China: Sichuan, Daxue Shan, Gongga Shan Mts., Hailougou [sic!] glacier park, 102.04E 29.36N, river valley ca. 1 km above Camp I, 2100 m, 28/31.V.1997, leg. A. Pütz" (CPE); 1 ♂: "China: Sichuan, Daxue Shan, Gongga Shan Mts., Hailougou [sic!] glacier park, env. Camp II, 2650 m, sifted, 30.V.1997, leg. A. Pütz" (CPE); 1 ♂: "CHINA: W-Sichuan (15) Daxue Shan, Hailuogou Glacier Park, Camp 2, 2550 - 2700 m, 29.35.16N 102.01.53E, 30./31.05.1997, M. Schülke" (CSB).

DESCRIPTION (Habitus: Fig. 1): 12.5 - 15.0 mm long (7.1 - 7.3 mm, abdomen excluded). – Black, rather opaque; head and pronotum deep metallic blue to violaceous-blue, elytra dark metallic blue, usually a bit more opaque shiny than head and pronotum; antennae black, four

outer segments creamy white; medial margin and distal portion of mandible dark reddish-brown; palpi deep black, last segments sometimes slightly paler brownish; abdominal segment VII with posterior margin broadly reddish-yellow (occupying about one fifth of length), segment VIII entirely pale yellowish, posterior third somewhat darker reddish-yellow, tergite X and styli of tergite IX yellowish, apical third of latter blackish.

Head slightly trapezoid, 1.15 - 1.18 times as wide as long (not sexually dimorphic), tempora regularly convex, 1.32 - 1.46 times as long as eyes, eyes moderately protruding; surface densely and coarsely punctate, punctural grooves large, mostly contiguous; frons impunctate; with short, weakly delimited impunctate midline, extending from impunctate frons to about half of midlength; rarely with a very fine ridge separating frons from clypeus; antennae with segments 4 - 6 markedly oblong, segments 7 - 10 about as long as wide; pronotum slender, 1.20 - 1.27 times as long as wide, widest at level of large lateral seta, narrowed toward base in wide but shallow concave arc; surface as densely punctate as on head, with indistinct, short impunctate midline in posterior third; scutellum with dense and coarse punctation, interstices forming small transverse rugae; elytra exceedingly densely, almost asperately punctate, punctures almost contiguous, basal depression narrowly impunctate; first three visible abdominal tergites with large, almost pit-like punctures in basal half (within but also laterad of basal depressions), but punctation sparse on first visible tergite, becoming denser on following tergites; posterior halves of first three visible and entire surface of remaining tergites with very fine and dense punctation; pubescence black; surface of tergites more or less strongly iridescent (in clean specimens); mesosternum: Fig. 9.

Aedeagus: Figs. 18, 19, 28.

DIAGNOSIS: Among the densely punctate species of this subgenus, *H. puetzi* may be recognized by the coloration of the antennae and the abdomen, by the narrower head ($w/l = 1.20 - 1.24$ in *H. chinense*, about 1.30 in *H. malaisei*) and pronotum ($l/w =$ less than 1.20 in *H. chinense* and *H. malaisei*), and to some extent by the smaller eyes (tempora/eyes = 1.2 - 1.3 in *H. chinense*, about 1.2 in *H. malaisei*). For separation from *H. flavoterminalis* which also has black basal abdominal segments, see there.

DISTRIBUTION: The species is at present known only from Gongga Shan, the highest mountain in Sichuan province, China.

DERIVATIO NOMINIS: The species is named after Andreas Pütz, specialist in Byrrhidae and great field entomologist.

***Hesperosoma (s.str.) flavoterminalis* sp.n.**

Holotype ♂: "China: Sichuan, Daxue Shan, Gongga Shan Mts., Hailougou [sic!] glacier park, 102.04E 29.36N, river valley ca. 1 km above Camp I, 2100 m, 28/31.V.1997, leg. A. Pütz" (NMW).

DESCRIPTION: 14.7 mm long (7.4 mm, abdomen excluded). – In coloration the species does not differ from *H. puetzi* except for five outer segments of antennae creamy white (four in *H. puetzi*) and the obvious golden ground pubescence in posterior halves of first three visible tergites. In build, it differs from *H. puetzi* by slightly wider head ($w/l = 1.23$), much larger eyes (tempora/eyes = 1.2), broader pronotum ($l/w = 1.18$), and by much smaller (not pit-like) punctures in basal half of first three visible tergites.

It is obviously most closely related to *H. chinense*, but differs by the entirely black first three visible tergites (first three or four visible tergites reddish in *H. chinense*), the entirely pale yellowish segment VIII (posterior half black in *H. chinense*), the yellowish tergite X (dark brown

in *H. chinense*) and the bicolored styli of tergite IX, being yellow with blackish apical third (entirely black in *H. chinense*).

Aedeagus: Figs. 20, 21, 29.

Female unknown.

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

ETYMOLOGY: The Latin name of the species refers to the yellowish apex of the abdomen.

Hesperosoma (s.str.) britakaiseræ sp.n.

Holotype ♂: "E-NEPAL: Arun Valley, Khandbari - Bhotebas, 950 - 1800 m, 5.VI.1992, leg. J. Probst" (NMW).

Paratypes (5 exs.): 1 ♀: "525 NEPAL: Solukhumbu Distr., Hinku Drangka Khola bridge, 2000 m, 18. - 19.V.1997, leg. W. Schawaller" (SMNS); 1 ♀: "NEPAL Annapurna Telbrungdanda, 2000 m. 15.6.97, leg. Schmidt" (DEI); 1 ♀: "Burhanilkant 1440 - 1650 m, 16.VI.1983 \ Nepal Kathmandu V. M. Brancucci" (NMB); 1 ♀: "NEPAL Dumahan IV.84 Morvan" (CRL).

DESCRIPTION (Habitus: Fig. 2): 14.8 - 16.4 mm long (7.3 - 7.9 mm, abdomen excluded). - Black, very shiny; head and pronotum brilliant metallic blue, violaceous-blue or with slight greenish-blue tint; elytra somewhat darker metallic blue or violaceous-blue, less shiny; posterior third of abdominal segment VII, entire segment VIII and tergite X pale yellowish, styli of tergite IX pale yellowish in basal two thirds, becoming slightly darker reddish distally; mandibles and palpi black-brown to dark reddish-brown; antennae black, four outer segments creamy white.

Head rounded subquadrangular to slightly trapezoid, 1.15 - 1.32 times as wide as long; eyes slightly protruding, tempora slightly convergent, 1.15 - 1.42 times as long as eyes, broadly rounded toward base; punctation exceedingly fine, sparse, bearing very fine setae, only macrosetae originating from umbilicate punctures; frons almost entirely impunctate; all antennal segments markedly oblong, except segments 9 and 10 being inconspicuously longer than wide; pronotum 1.09 - 1.13 times as long as wide, widest approximately at level of large lateral seta, narrowed toward base in wide concave arc; punctation as fine as on head but slightly denser; surface of head and pronotum exceedingly shiny due to total lack of any microsculpture; scutellum with dense, pit-like punctation, punctures partly confluent near posterior angle; elytra very densely punctate, punctures separated by less than a puncture diameter in transverse direction, punctures moderately coarse; ground pubescence black; first three visible tergites each with a pair of divergent ridges at base, with distinct transverse depression in basal half, depression laterally slightly extending beyond basal ridges, with large but moderately deep punctures in depressions, punctures separated by less than a puncture diameter, in places almost contiguous; posterior halves of first three visible tergites and entire surface of remaining tergites with fine, moderately dense punctation; female tergite X with characteristic pointed apex of the subgenus *Hesperosoma* s.str.; mouthparts: Fig. 7; mesosternum: Fig. 10; male sternite VII: Fig. 12.

Male: Elytra slightly carinate postero-laterally, basal four segments of front tarsi slightly larger than in females.

Aedeagus: Figs. 22, 23, 30.

DIAGNOSIS: Within the genus *Hesperosoma*, the species appears like a strange element due to the very fine and sparse punctation of head and pronotum. Originally, I seriously considered to establish a separate taxon for this species but eventually came to the conclusion that the different punctation alone does not justify such a step. In addition, the discovery of *H. mishmiense* sp.n. (see below) which represents a kind of intermediate state between *H. britakaiseræ* and the

densely punctate species, supported my decision to treat *H. britakaiserae* as a member of *Hesperosoma* s.str.

DISTRIBUTION: The species is at present known only from the central and eastern portions of Nepal where it was collected at elevations between 1400 and 2000 m.

DERIVATIO NOMINIS: This outstandingly beautiful species is named in honour of Brita Kaiser (Vienna, Austria).

***Hesperosoma* (s.str.) *mishmiense* sp.n.**

Holotype ♂: "ASSAM: Mishmi Hills, Dolai Valley, Cha Che. xi.1936 ["39" handwritten on underside] \ Alt. ft. [elevation not indicated] M. Steele. B.M. 1937-324" (NHML).

DESCRIPTION (Habitus: Fig. 3): 14.5 mm long (7.4 mm, abdomen excluded). – Head and pronotum brilliant metallic green to blueish-green, elytra brighter metallic green at shoulders, along sides and at posterolateral angles, disc mostly with a coppery-magenta cast (the color is difficult to interpret as it changes hues at different lighting angles); first three visible tergites reddish, middle portion and posterior margin to various extent obscured; following two tergites dark brown but tergite VII with posterior fourth pale yellow, segment VIII and tergite X entirely pale yellow, styli of tergite IX reddish; antennae black with five outer segments creamy white; mandibles reddish-testaceous with narrowly darkened medial and lateral margins; palpi dark reddish-brown with paler reddish tips; legs obscurely reddish, medial faces of meso- and meta-tibiae slightly infusate.

Head rounded trapezoid, 1.23 times as wide as long, eyes slightly protruding, tempora regularly convex, 1.28 times as long as eyes; surface with moderately dense, simple punctation, punctures separated by about 1 - 2 puncture diameters in transverse direction; narrow anterior portion of frons impunctate; narrow impunctate midline extending from frons posteriad to about two thirds of midlength; antennal segments 4 - 7 markedly oblong, segments 8 and 9 slightly oblong, segment 10 about as long as wide; pronotum 1.28 times as long as wide, widest at level of large lateral seta, narrowed toward base in distinct concave arc; punctation of surface similar to that of head, with narrow impunctate midline, occupying about posterior two thirds of midlength; scutellum densely furnished with large pit-like punctures, but punctures, although almost contiguous, well isolated; surface between punctures with distinct meshy microsculpture; elytra with slightly uneven surface, with rather weak gibbosity between shoulder and scutellum, along suture slightly more elevated than in remaining species of the subgenus; punctation dense but punctures not contiguous, separated by less than a puncture diameter in transverse direction; first three visible abdominal tergites with large, pit-like punctures at base, occupying more than basal half on first, about basal half on second and about basal third on third visible tergite; remaining portion of first three visible and entire surface of following tergites with very fine punctation and pubescence, sparse on first visible tergite, becoming increasingly denser posteriad, very dense on tergites VI and VII.

Aedeagus: Figs. 24, 25, 31.

Female unknown.

DIAGNOSIS: Due to the rather sparse punctation the species is quite similar to *H. britakaiserae*, but the punctation is conspicuously coarser and denser. In addition, it may be easily separated by the different coloration.

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

ETYMOLOGY: The species is named after the type locality.

Hesperosoma* subgen. *Paramichrotus* NAOMI, 1982Hemihesperosoma* HAYASHI, 2002 **syn.n.**

Taxa included: *H. klapperichi* sp.n., *H. miwai* BERNHAUER (typus generis), *H. miwai nanshanchianum* HAYASHI, *H. sakoi* HAYASHI.

In the introduction to his paper, HAYASHI (2002: 169) stated that according to his interpretation of ICZN article 11.6. *Paramichrotus* CAMERON, 1932 is not a nomen nudum thus rendering Naomi's name homonymous. As a consequence he introduced the replacement name *Hemihesperosoma*. However, even if article 11.6. should not apply, Cameron's name is also affected by article 13.3. which says that genus group names published after 1930 are invalid when no type species is designated. Therefore, the name *Paramichrotus* NAOMI, 1982 has to be reestablished.

I am a bit doubtful about the status of *H. miwai nanshanchianum* and *H. sakoi*. The subspecies has been described from one single specimen, which hardly justifies subspecific status. The description of *H. sakoi* is also based on very subtle differences in the shape of the aedeagus, the body coloration, the gular sutures, the mesosternal structure and the development of the male elytral carinae. All these characters have been found to be subject to a certain variability. However, since much more material has to be studied to correctly judge the situation, and I have made no attempt to study the type specimens in the course of preparing this paper, I will not carry out any changes to their status.

***Hesperosoma (Paramichrotus) klapperichi* sp.n.**

Holotype ♂: "CHINA: SE - Hubei, Mufu Shan, Jiugongshan forest park, 29.4N 114.6E, up to 1000 m, 3./5./18.6.2002, leg. J. Turna" (NMW).

Paratypes (3 exs.): 1 ♀ with same data as holotype (NMW); 1 ♂: "Kuatun (2300 m) 27.40 n.Br. 117,40 ö.L. J. Klapperich 24.4.1938 (Fukien)" (NMW); 1 ♂: "Kuatun, Fukien, China, 15.7.46, leg. Tschung-Sen" (NMW).

DESCRIPTION: 12.0 - 13.2 mm long (6.0 - 6.5 mm, abdomen excluded). – Black, rather dull; elytra brick-red, each elytron with large black spot in posterior half, spot rounded medially, not reaching suture, posterior margin of elytra pale yellowish; first three visible abdominal segments reddish, fourth visible segment black, elevated area in front of basal line reddish, following segment (segment VII) likewise but posterior margin broadly (about one fifth of tergite length) yellowish; segment VIII with basal half yellowish, posterior half black; tergite X yellowish, slightly obscured posteriorly; styli of tergite IX black, narrowly yellowish basally; antennae black, four outer segments creamy white, bases and tips of proximal segments sometimes narrowly reddish; palpi dark reddish-brown, last segments usually paler reddish; legs reddish-yellow, posterior half of dorsal faces of femora and tibiae blackened.

Head rounded trapezoid to almost rounded quadrangular, 1.34 - 1.48 times as wide as long; eyes moderately protruding; tempora regularly convex, slightly (1.03 - 1.10 times) longer than eyes; surface densely punctate, punctures large, almost umbilicate, contiguous except for small area on vertex where a bit of shiny surface may be discerned between punctures; frons with pair of wide, very shallow depressions; antennae with segments 4 - 7 oblong, segment 8 about as long as wide, segments 9 and 10 inconspicuously transverse; pronotum 1.11 - 1.13 times as long as wide, widest at level of large lateral seta, narrowed toward base in wide concave arc; punctuation of surface even slightly denser than on head, with a tiny rudiment of impunctate midline in front of base; scutellum densely and very coarsely punctate, punctures partly confluent, forming small rugae; elytra exceedingly densely, asperately punctate, with only a very narrow impunctate portion in basal depression; pubescence reddish-golden, except on black spots where pubescence black; large males with sharp and distinct lateral carina occupying posterior two thirds, carina

rather weak and indistinct in smaller males; first visible abdominal tergite with large almost pit-like punctures arranged in transverse row at about midlength, very base almost impunctate, basal half of second and third visible tergite with large but rather flat and not pit-like punctures; posterior halves of first three visible tergites and entire remaining tergites with dense and fine punctation and pubescence.

Aedeagus (Figs. 38 - 42) symmetrical, with fan-shaped median lobe; paramere (Fig. 40) bilobed, lobes broad and short. The aedeagus is slightly variable, especially the median lobe.

DIAGNOSIS: The species is very similar to *H. miwai* from Taiwan but may be distinguished by the finer punctation at the base of the fourth visible tergite. The main distinguishing character, however, is the aedeagus. In *H. miwai* the median lobe is much broader and the lobes of the paramere are slender and long.

DISTRIBUTION: The species is at present known only from a rather restricted area in southeast China (south-eastern Hubei and north-western Fujian).

DERIVATIO NOMINIS: The species is dedicated to Johann Friedrich Klapperich (1913 - 1987) who collected numerous highly interesting staphylinides in Southeast China.

Hesperosoma subgen. *Euhesperosoma* HAYASHI, 2002

Taxa included: *H. excellens* BERNHAUER (typus generis), *H. meghalayense* sp.n. – some more species, like *Amichrotus distinctus* (CAMERON, 1932) and *A. ruficollis* (CAMERON, 1932) eventually will have to be included in this subgenus but this may be confirmed only after the types of the respective species have been studied.

HAYASHI (2002: 178) also included *H. elegans* (CAMERON, 1920) in this subgenus. *Hesperosoma elegans* shares the basally carinate mesosternum (although less distinctly developed) with *H. excellens*, however, the former and most likely such species as *Amichrotus bryantii* (CAMERON, 1937), *A. doriae* (GRIDELLI, 1924), *A. jacobsoni* BERNHAUER, 1915, *A. merritti* BERNHAUER, 1912 and *A. picticollis* (CAMERON, 1937) differ from *Euhesperosoma* in some unique characters and most certainly represent yet another subgenus or even genus. Since non of these taxa have been studied, no action in this direction was taken here.

Hesperosoma (Euhesperosoma) excellens (BERNHAUER, 1939)

The species has been sufficiently characterized by HAYASHI (1995). The specimen from Vietnam is smaller than all specimens from China studied. There is also a slight difference in the shape of the aedeagus. Whether the Vietnamese specimen represents a different taxon or just a variety cannot be evaluated from such limited material.

Aedeagus: Figs. 32 - 37; mesosternum: Fig. 11.

ADDITIONAL RECORDS:

CHINA: FUJIAN: 1 ♂: "Kuatun (2300m) 27,40n.Br. 117,40ö.L. J. Klapperich 8.5.1938 (Fukien)" (NMW); 1 ♂: same locality but "31.5.1938" (NMW); 1 ♀: same locality but "1.5.1938" (NMW); 1 ♀: "Kuatun, Fukien China, 14.5.46 leg. Tschung-Sen" (NMW); HUBEI: 1 ♂: SE-Hubei, Mufu Shan, Jiugongshan forest park, 29.4N 114.8E, up to 1000 m, 3./5./18.VI.2002 (NMW).

Vietnam: 1 ♂: TUYEN QUANG: Na Hang Reserve, 360 m, 20. - 24.V.1997, rain forest, FIT, leg. S. Peck (CSO).

DISTRIBUTION: *Hesperosoma excellens* was described from Kamikochi (Japan). There have been doubts about the correctness of the type locality (see HAYASHI 2002), because it lies very

far in the north and the species has never been found again in that place. The new records provide reliable data at least for SE-China and N-Vietnam.

***Hesperosoma (Euhesperosoma) meghalayense* sp.n.**

Holotype ♂: "NE-INDIA: Meghalaya W Garo Hills Nokrek NP; ca. 1100 m \ 25°29.6'N 90°19.5'E 9. - 17.5.1996 leg. Jendek & Sausa" (NMW).

DESCRIPTION (Habitus: Fig. 4): 13.0 mm long (6.0 mm, abdomen excluded). – Rather dull; head including neck black, pronotum reddish, elytra with basal third reddish, posterior two thirds black, black color extending to deflexed portion but not reaching lateral margin, suture and posterior margin narrowly reddish; first three visible abdominal segments red, fourth and fifth visible segments (segments VI and VII) black, posterior margin of segment VII rather broadly yellowish (about one fifth of length), segment VIII with anterior half yellowish and posterior half black; styli of tergite IX blackish in middle, base and apex dark reddish-brown; genital segment pale brownish; antennae black, four outer segments creamy white, basal two segments narrowly reddish at base; mandibles entirely reddish, palpi dark reddish-brown, last segments markedly paler; femora black with yellow basal halves, tibiae yellowish with black apices, black color more distinctly extending basad on middle tibiae, tarsi reddish.

Head rounded quadrangular, 1.25 times as wide as long; eyes moderately protruding, large, 1.12 times as long as slightly convergent tempora; surface of head with dense and coarse, almost umbilicate punctation, punctural grooves forming rather sharp ridges on frons; anterior margin and narrow midline impunctate; antennae with segments 4 - 6 more or less oblong, segments 7 - 10 about as long as wide; pronotum rather strongly vaulted, 1.15 times as long as wide, widest at level of large lateral seta, narrowed toward base in almost straight line, shortly, indistinctly sinuately emarginate in front of base; surface exceedingly densely, coarsely punctate, punctures almost umbilicate, contiguous, interstices forming sharp polygonal ridges; without any indication of an impunctate midline; scutellum exceedingly densely, coarsely, asperately punctate; elytra (including basal depression) also very densely punctate (except basal depression where punctation somewhat finer), punctation strongly asperate; ground pubescence black, but with ring of golden pubescence around black elytral patches; first three visible abdominal tergites with basal depression, laterally delimited by oblique ridges; all tergites densely and coarsely punctate, punctures larger at base of tergites, particularly in basal depressions of first three visible tergites.

Aedeagus (Figs. 43 - 45) long and slender, apex of median lobe slightly hooked (ventrad), paramere long and flat, apex slightly emarginate, face adjacent to median lobe with numerous peg setae mostly irregularly arranged along midline.

DIAGNOSIS: In coloration the species exactly resembles *H. excellens*, but differs by the much coarser punctation of the body, the slightly more oblong pronotum and by the strikingly different shape of the aedeagus.

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

ETYMOLOGY: The species is named after the type locality.

***Philomyceta* CAMERON, 1944**

Montguillonius COIFFAIT, 1987 **syn.n.**

Hesperopsis COIFFAIT, 1982

Taxa included: *Philomyceta affinis* CAMERON, *P. caeruleipennis* CAMERON (typus generis), *P. sikkimensis* (COIFFAIT).

The type species (*P. caeruleipennis*) was recently redescribed by HAYASHI (2002b) still treating *Montguillonius* as a valid genus. The mentioned differences, however, are so superficial that this status can hardly be justified. *Hesperopsis sikkimensis* was described by COIFFAIT (1982) as a new genus and species. Since *Hesperopsis* was a preoccupied name, it was replaced by *Montguillonius* (COIFFAIT 1987). The genus is definitely identical with *Philomyceta*. It remains to establish, whether *P. sikkimensis* is identical with one of the two species described by Cameron.

Hesperoschema SCHEERPELTZ, 1965

Taxa included: *Hesperoschema malaisei* SCHEERPELTZ (typus generis), *H. sauteri* sp.n.

The genus and the type species were sufficiently redescribed by HAYASHI (2003). For additional distinguishing characters see the key above.

Hesperoschema sauteri sp.n.

Holotype ♂: "Hoozan Formosa Sauter \ Dr. M. Bernhauer donavit 10.III.1937 \ Amichrotus apicipennis Sharp ?? \ ex coll. Scheerpeltz" (NMW).

Paratypes (2 exs.): 1 ♀ with same data as holotype (NMW); 1 ♀: "TAIWAN: Nantou Hsien, Loshan - Wenchuan, 2.IV.1998, leg. H. Sugaya" (NSMT).

DESCRIPTION (Habitus of female: Fig. 5): 11.5 - 14.0 mm long (6.1 - 6.6 mm, abdomen excluded). – Black, shiny; head and pronotum with dark metallic olivaceous-green hue, elytra with dark metallic coppery hue, in specimens from "Hoozan" basal third obscurely reddish; posterior margins of first four visible tergites obscurely reddish, posterior third of tergite VII (fifth visible) bright reddish-yellow, segments VIII - X entirely reddish-yellow, apical halves of styli of tergite IX darker reddish-brown; antennae black, three outer segments creamy white (in specimens from "Hoozan" first four segments dark reddish); legs black, tarsi and bases of tibiae reddish or entire tibiae reddish; palpi dark brown to black-brown, last segments of maxillary and labial palpi markedly paler. – Remark: the generally paler color of the older specimens ("Hoozan") might be a result of fading due to the age of the specimens, but it cannot be excluded with certainty that the species displays a certain degree of variability.

Head trapezoid, 1.30 - 1.47 times as wide as long; eyes rather strongly protruding; tempora distinctly convergent, 1.08 - 1.11 times as long as eyes, regularly convex; head rather densely and coarsely punctate, without impunctate midline, punctures separated by about a puncture diameter in transverse direction or slightly more; anterior margin of head (clypeus) impunctate; surface between punctures without microsculpture, very shiny, only between eyes and antennal grooves with slight traces of wavy microsculpture; antennae with all segments oblong, segments slightly asymmetrical; mandibles exceedingly long and slender, especially portion apicad of medial tooth; pronotum 1.08 - 1.11 times as long as wide, widest at level of large lateral seta, narrowed toward base in straight line for a long stretch behind large lateral seta, but distinctly sinuately emarginate in front of base; punctation more or less identical to that of head but pronotum with distinct impunctate midline, reaching anteriorly from base to about four fifths of pronotal length; surface of pronotum without any trace of microsculpture; scutellum with numerous, large, almost pit-like punctures, surface between punctures with dense, short-meshed microsculpture; elytra densely, very coarsely punctate, punctures separated by somewhat less than a puncture diameter, but punctural grooves partly confluent (especially in male) forming more or less distinct transverse rugae; suture slightly elevated, along suture with a dense row of much finer punctures; male with very sharp longitudinal carina laterally, occupying posterior two thirds of elytral length; first three visible tergites with medio-basal depression and pairs of

oblique basal ridges, depression on first visible tergite extending laterad beyond ridges; punctuation of tergites moderately dense, very fine, except for base of first three visible tergites, where punctures larger, but very flat and much more sparing; surface of tergites with dense but fine, short-meshed microsculpture, particularly basally.

Aedeagus (Figs. 46 - 48) asymmetrical, very similar to those of the genus *Amichrotus*.

DIAGNOSIS: The species differs from *H. malaisei* by the more slender segment 2 of maxillary palpi and by the obviously different coloration: in *H. malaisei* the fore body is brilliant metallic violaceous-blue, the abdomen is prevalingly reddish and the four outer antennal segments are creamy white.

DISTRIBUTION: The species is at present known only from the island of Taiwan.

DERIVATIO NOMINIS: The species is named in honour of Hans Sauter (1871 - 1948), who was among the first to carry out extensive collecting on Taiwan.

Misantlius SHARP

The Neotropical species of this genus have been recently revised (ASIAIN & MÁRQUES 2003). The occurrence of this genus in Asia came somewhat unexpected and is difficult to understand from the biogeographical point of view. However, the comparison with two Neotropical species (*M. gebieni* BERNHAUER and *M. carinulatus* SHARP) yielded no generic differences whatsoever.

In addition to the characters mentioned in the key, there is another feature which seems characteristic for this genus: the peg setae of the paramere are either strongly reduced or, if more conspicuous, very weakly pigmented.

Misantlius pecki sp.n.

Holotype ♂: "VIETNAM Tuyen Quang Prov. Na Hang Res. 360 m 20.-24.V.97 rain forest FIT S. Peck" (CSO).

DESCRIPTION (Habitus: Fig. 6): 14.0 mm long (6.8 mm, abdomen excluded). – Opaque; head (incl. neck) black, around antennal grooves reddish-testaceous; pronotum reddish-brown, at anterior margin narrowly blackish medially; scutellum reddish-brown, along sides narrowly dark brown; elytra reddish-brown at base and posterior margin, a broad transverse band on disc darker brownish, slightly extending laterally on deflexed portion but not reaching lateral margin; darker parts of elytra with blackish pubescence, paler parts at base and posterior margin with golden pubescence; abdominal tergites reddish-brown, posterior portions of each tergite variably darkened, occupying posterior half of first visible tergite, posterior two thirds of second and third visible tergites, fourth visible tergite almost entirely black; segment VIII entirely reddish-yellow; genital segment reddish-yellow, styli of tergite IX with blackish distal halves; first visible tergite entirely covered with golden pubescence, second and third visible tergites with black to greyish-brown pubescence, third visible tergite with tiny patches of golden pubescence baso-laterally, tergites VI and VII (fourth and fifth visible) with dark pubescence in posterior halves, with a broad transverse band of golden pubescence in basal halves; tergite VIII with dense golden pubescence in basal third, posterior two thirds without ground pubescence, but with numerous dark setae, conspicuously longer and thicker than almost tomentose ground pubescence of remaining tergites; mandibles and palpi reddish-testaceous, tips of mandibles somewhat infuscate; antennae with scapus reddish, segments 2 and 3 reddish with distal third black, segments 4 - 7 black, four outer segments creamy white; legs entirely reddish.

Head distinctly trapezoid, 1.5 times as wide as long; tempora about as long as inconspicuously protruding eyes, convergent, almost straight for short distance behind eyes, increasingly convex

toward rounded but quite obvious hind angles, base of head slightly concave; surface with exceedingly dense, almost umbilicate punctation, hardly leaving any shiny interstices; clypeus impunctate; macrosetae well developed, long and stout; palpi very long and slender, *Hesperus*-like, particularly second segments of maxillary and labial palpi; second segment of labial palpi twice as long as last segment; antennae with all segments gradually decreasing in length toward distal end but even segment 10 still slightly oblong; pronotum 1.13 times as long as wide, widest approximately at level of large lateral seta, narrowed toward base in slight concave arc; disc of pronotum somewhat flattened in posterior half, superior lateral line not visible from above for entire length; entire dorsal surface of pronotum exceedingly densely punctate (as on head), without any trace of a glabrous midline; scutellum densely and rather coarsely punctate right to lateral margin, punctures almost contiguous; elytra finely, exceedingly densely, slightly asperately punctate including basal depression; elytral sides of male with rather distinct lateral carinae occupying posterior half of elytral length; first three visible abdominal tergites with basal depressions laterally delimited by distinct oblique ridges; all tergites with fine and very dense, almost tomentose punctation and pubescence, first three visible tergites with larger, somewhat sparser punctation in basal halves; male sternite VII: Fig. 13.

Aedeagus (Figs. 49 - 51).

Female unknown.

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

DERIVATIO NOMINIS: The species is named in honour of Stewart Peck who has repeatedly proved to be a highly experienced and efficient collector.

Misantlius sikkimensis sp.n.

Holotype ♂: "Sikkim de Padamtsin à Lingtou Juillet 1901 \ ex Coll. R. Oberthür 1952" (MHNP).

DESCRIPTION: 14.8 mm long (7.8 mm, abdomen excluded). – Black, opaque; head and pronotum deeply metallic blue to violaceous blue, elytra darker metallic blue; abdominal segments VII and VIII bright reddish; genital segment yellowish-brown, distal halves of styli of tergite IX darker brown; segments 1 - 6 of antennae black, bases of segments 4 - 6 narrowly reddish, five outer segments creamy white; palpi black to dark brown, penultimate segment narrowly and last segment entirely paler reddish-brown; legs entirely black.

Head rounded quadrangular to slightly trapezoid, 1.6 times as wide as long; eyes small, not protruding; tempora almost regularly convex, 1.63 times as long as eyes; surface of head rather densely punctate, punctures large, flat, umbilicate, separated by about a puncture diameter, area between antennal insertions and a narrower portion on vertex impunctate; entire dorsal surface of head covered by very profound isodiametrical microsculpture, sparing out narrow clypeal area and gibbose portion at medial margin of antennal grooves; antennae with segments 4 - 7 oblong, segments 8 - 10 about as long as wide; pronotum slightly longer than wide (1.07 times), dorsal surface conspicuously flattened; lateral portions of dorsal surface distinctly deflexed, superior lateral line visible from above only in basal fifth; punctation and microsculpture as on head, with a short trace of glabrous midline in basal fourth; scutellum with moderately dense, very flat punctation; elytra densely, slightly asperately punctate, punctures separated by about half a puncture diameter in transverse direction, surface between punctures with slightly rugose microsculpture; elytral sides of male with distinct lateral carina occupying almost entire elytral length; first three visible abdominal tergites with rather flat basal depressions, oblique carinae delimiting depressions very indistinctly indicated; surface of all tergites rather uniformly, moderately densely punctate, punctation very slightly asperate; punctation on tergites VII and VIII very fine, sparse, not asperate; surface between punctures with quite distinct microsculpture,

isodiametrical in basal depressions, short transverse meshes on remaining surface of tergites; labial palpi: Fig. 8.

Aedeagus (Figs. 52 - 54).

Female unknown.

DIAGNOSIS: *Misanthlius sikkimensis* cannot be confused with *M. pecki*, due to the different coloration and the isodiametrical microsculpture of the fore body.

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

ETYMOLOGY: The species is named after the type locality.

The *Tympanophorus* lineage

Amelinus BERNHAUER, 1915

Barygnathus BERNHAUER, 1902

Pseudodysanellus HAYASHI, 2001 syn.n.

Bombylodes FAUVEL, 1904

Bombylius FAUVEL, 1902

Diatrechus BERNHAUER, 1911

Pammegus FAUVEL, 1895

Tolmerinus BERNHAUER, 1923

Tolmerus BERNHAUER, 1911

Turgiditarsus SCHILLHAMMER, 1997

Tumiditarsus SCHILLHAMMER, 1996

Tympanophorus NORDMANN, 1837

Diaphoetes C. WATERHOUSE, 1884

Notes on some genera of the *Tympanophorus* lineage

Most genera of this lineage may be found in various subtribes in the world catalog by HERMAN (2001a, b), reflecting the fact that nobody ever had a clear idea of how these genera are related. In addition, most genera are badly in need of revision (especially *Diatrechus*, *Tolmerinus* and *Tympanophorus*). At least one more genus, unknown to me, might also belong to this lineage (*Paradiatrechus* CAMERON, 1944). As mentioned above, the delimitation from *Xanthopygina* poses some problems in this lineage and we might still see some substantial changes to the present concept, as the knowledge on this lineage and its genera increases. For the moment, it suffices to discuss a few genera which deserve special attention.

***Amelinus* BERNHAUER, 1915**

The genus *Amelinus* has a rather heterogeneous external appearance, with some species remotely resembling some members of the genus *Algon* (indeed, one species has been erroneously described as *Algon*). It is the only genus in this lineage (of which males are known) with males lacking any secondary sexual characters on sternite VII. The aedeagi, however, are so similar to those of the genus *Barygnathus* that I tentatively placed *Amelinus* in the subtribe *Anisolinina*.

***Barygnathus* BERNHAUER, 1902**

Pseudodysanellus HAYASHI, 2001 syn.n.

The genus *Barygnathus* was described from Sri Lanka. So far, only the type species (*B. opacus* BERNHAUER, 1902) was known. In the NMW there are a few specimens from China (Fujian and Sichuan) which hardly differ from *B. opacus* and might well be conspecific. Recently, HAYASHI (2001) described a new genus and species (*Pseudodysanellus sasajii*) from Sabah, East Malaysia, and compared it to *Pammegus* and *Barygnathus*. Although I have not seen the types of this species, the habitus illustration clearly shows that it belongs to *Barygnathus*.

Additional record of *Barygnathus sasajii* (HAYASHI, 2001): "E-MALAYSIA: Sabah Batu Punggul Resort env., 24.VI. - 1.VII.1996 (11c) \ sifted from vegetation debris and forest floor litter accumulated around large trees near river" (2 specimens); and 1 specimen from the same locality but collected by flight interception trap.

***Tympanophorus* NORDMANN, 1837**

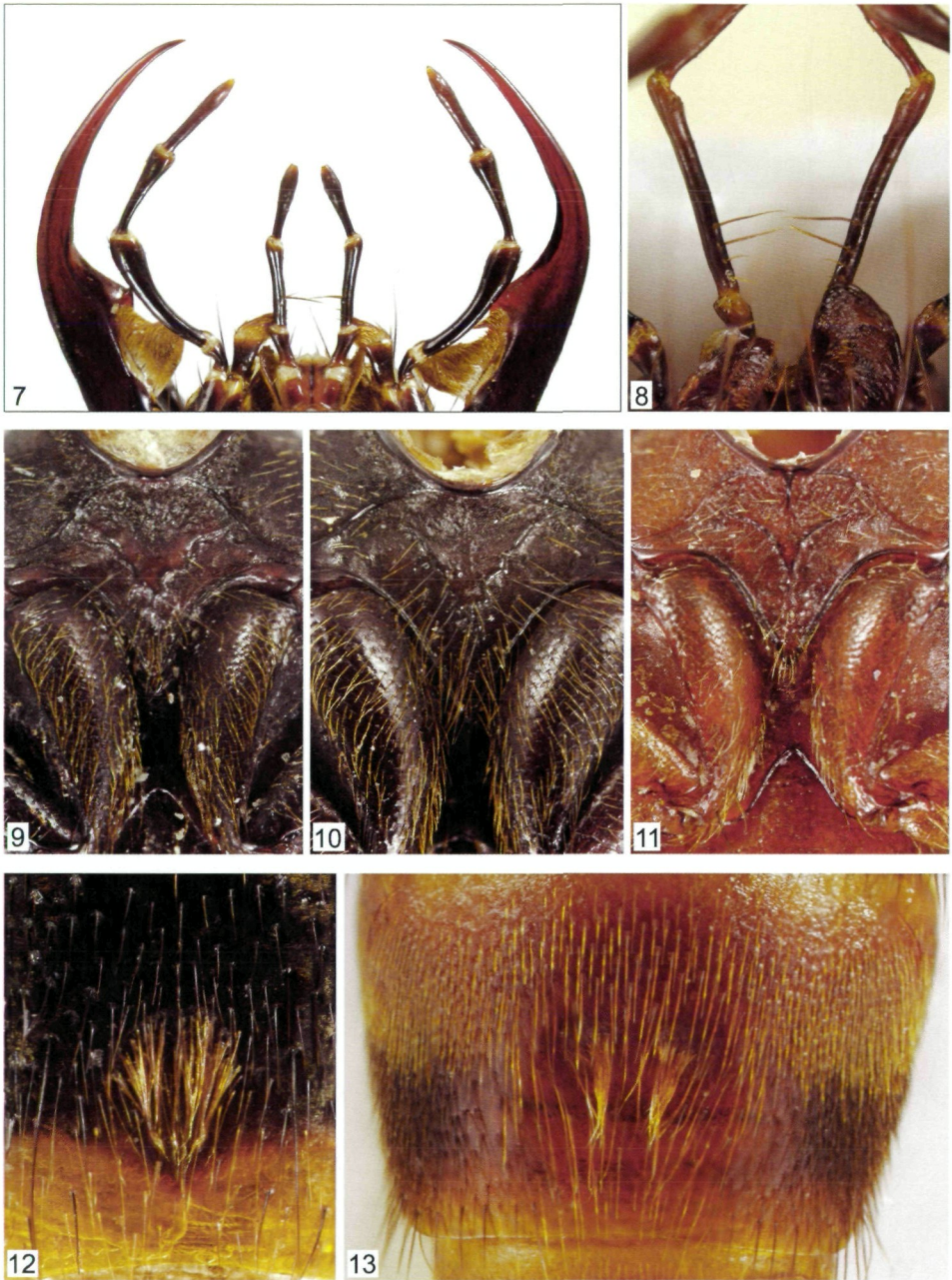
The genus is known from the New World, from tropical Africa, from the east Palearctic and Oriental regions. There have been discussions (mostly in litteris) whether *Tympanophorus* should belong to Xanthopygina or not, even the congenerity of the New World and Old World species was doubted (HAYASHI 2000, SCHILLHAMMER 2002, Newton pers. comm.). In the course of these studies, I examined specimens from all areas where the genus has been recorded from. I was not able to find any differences that would justify a generic separation of the New World and the East Palearctic/Oriental species. Only the Afrotropical specimen I studied definitely belongs to another genus because of the distinctly pubescent segment 4 of the maxillary palpi and the oddly shaped aedeagus. This specimen might be conspecific with *T. schenklingi* BERNHAUER, 1912, but this has to be verified.

Zusammenfassung

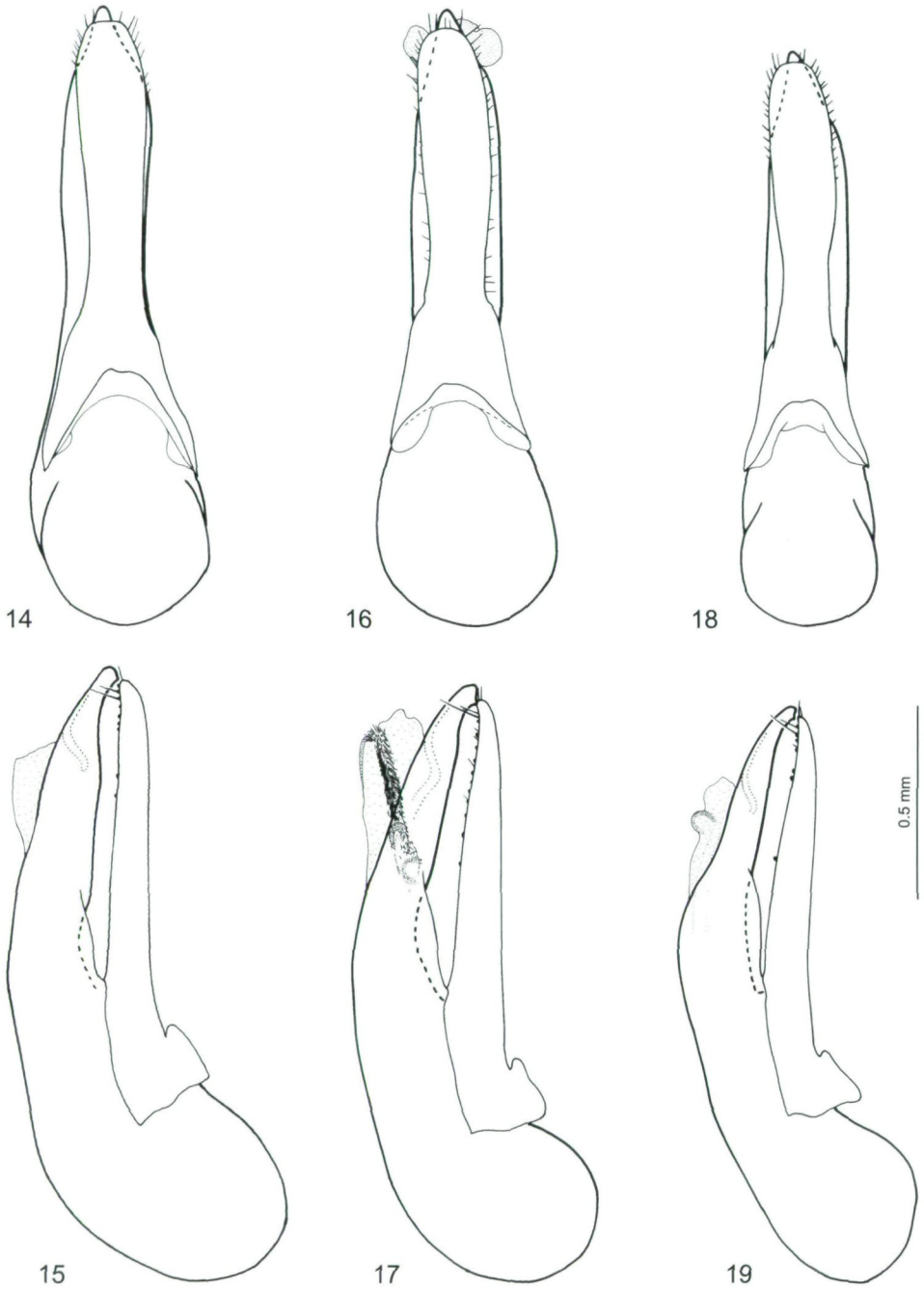
Die Studie setzt sich kritisch mit der Subtribus Anisolinina auseinander. Vierzehn Gattungen werden momentan in dieser Subtribus berücksichtigt. Diese lassen sich in zwei lineages unterteilen: *Anisolinus*-lineage (*Amichrotus* SHARP, *Anisolinus* SHARP, *Hesperoschema* SCHEERPELTZ, *Hesperosoma* SCHEERPELTZ, *Misantlius* SHARP, *Philomyceta* CAMERON), und *Tympanophorus*-lineage (*Amelinus* BERNHAUER, *Barygnathus* BERNHAUER, *Bombylodes* FAUVEL, *Diatrechus* BERNHAUER, *Pammegus* FAUVEL, *Tolmerinus* BERNHAUER, *Turgiditarsus* SCHILLHAMMER, *Tympanophorus* NORDMANN). Neun neue Arten werden beschrieben: *Hesperosoma britakaiserae* (Nepal), *H. flavoterniale* (China), *H. klapperichi* (China), *H. meghalayense* (Indien), *H. mishmiense* (Indien), *H. puetzi* (China), *Hesperoschema sauteri* (Taiwan), *Misantlius pecki* (Vietnam) and *M. sikkimensis* (Indien). Die Untergattung *Paramichrotus* NAOMI von *Hesperosoma* erlangt wieder Gültigkeit. Neue Synonymien: *Paramichrotus* NAOMI (= *Hemihesperosoma* HAYASHI syn.n.); *Philomyceta* CAMERON (= *Montguillonius* COIFFAIT syn.n.); *Barygnathus* BERNHAUER (= *Pseudodysanellus* HAYASHI syn.n.). Neue, verlässliche Fundortangaben für *Hesperosoma excellens* (BERNHAUER) werden angeführt. Die Gattung *Misantlius* wird zum ersten Mal aus Asien gemeldet. Schlüssel zu den Gattungen der *Anisolinus*-lineage und den Arten von *Hesperosoma* s.str. sollen die Determination ermöglichen. Fotos zeigen den Habitus und Körperdetails ausgewählter Arten. Die männlichen Kopulationsorgane aller neuen und einiger schon beschriebener Arten werden abgebildet.



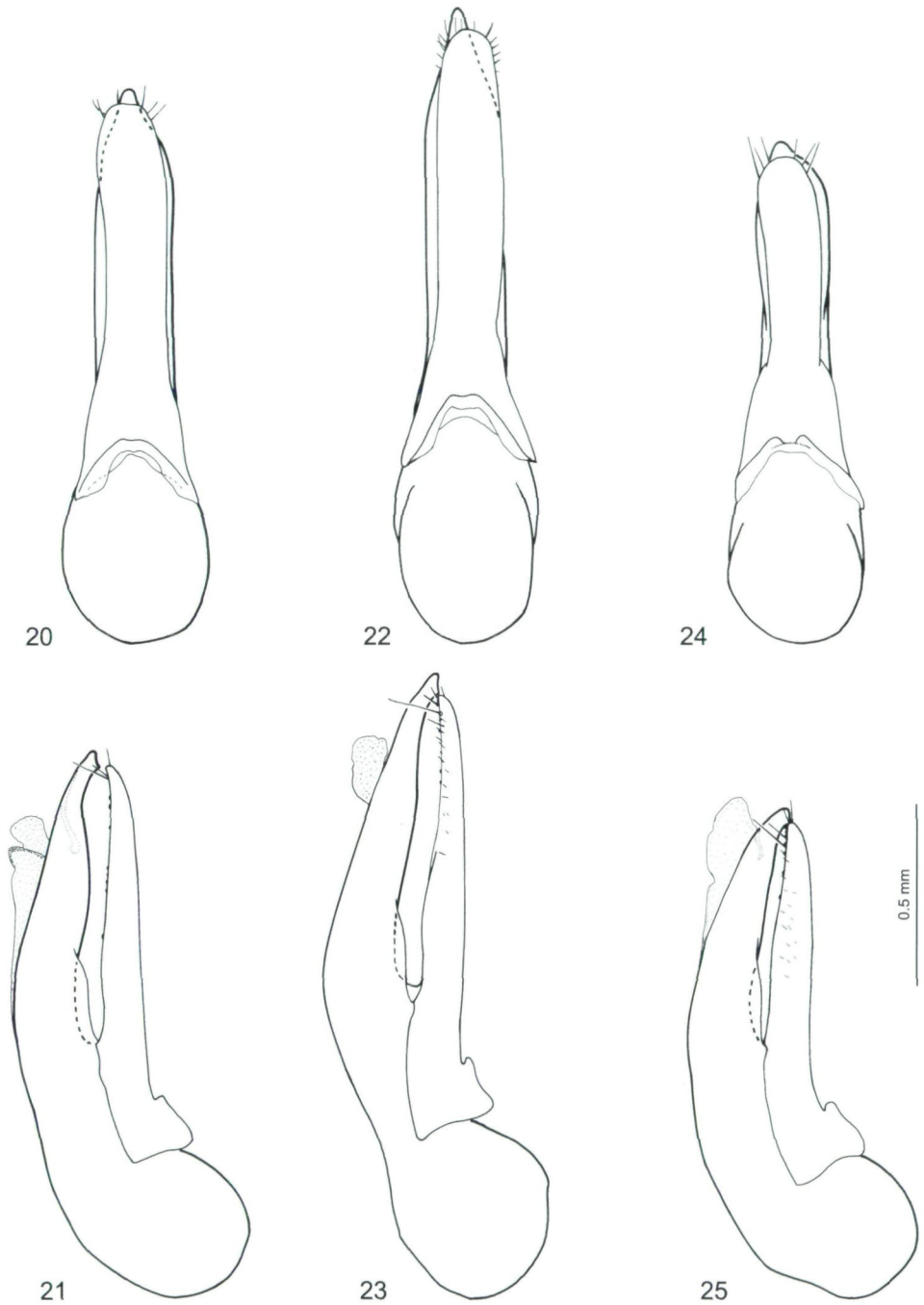
Figs. 1 - 6: Habitus of 1) *Hesperosoma puetzi*; 2) *H. britakaiserae*; 3) *H. mishmiense*; 4) *H. meghalayense*; 5) *Hesperoschema sauteri*; 6) *Misanthlius pecki*.



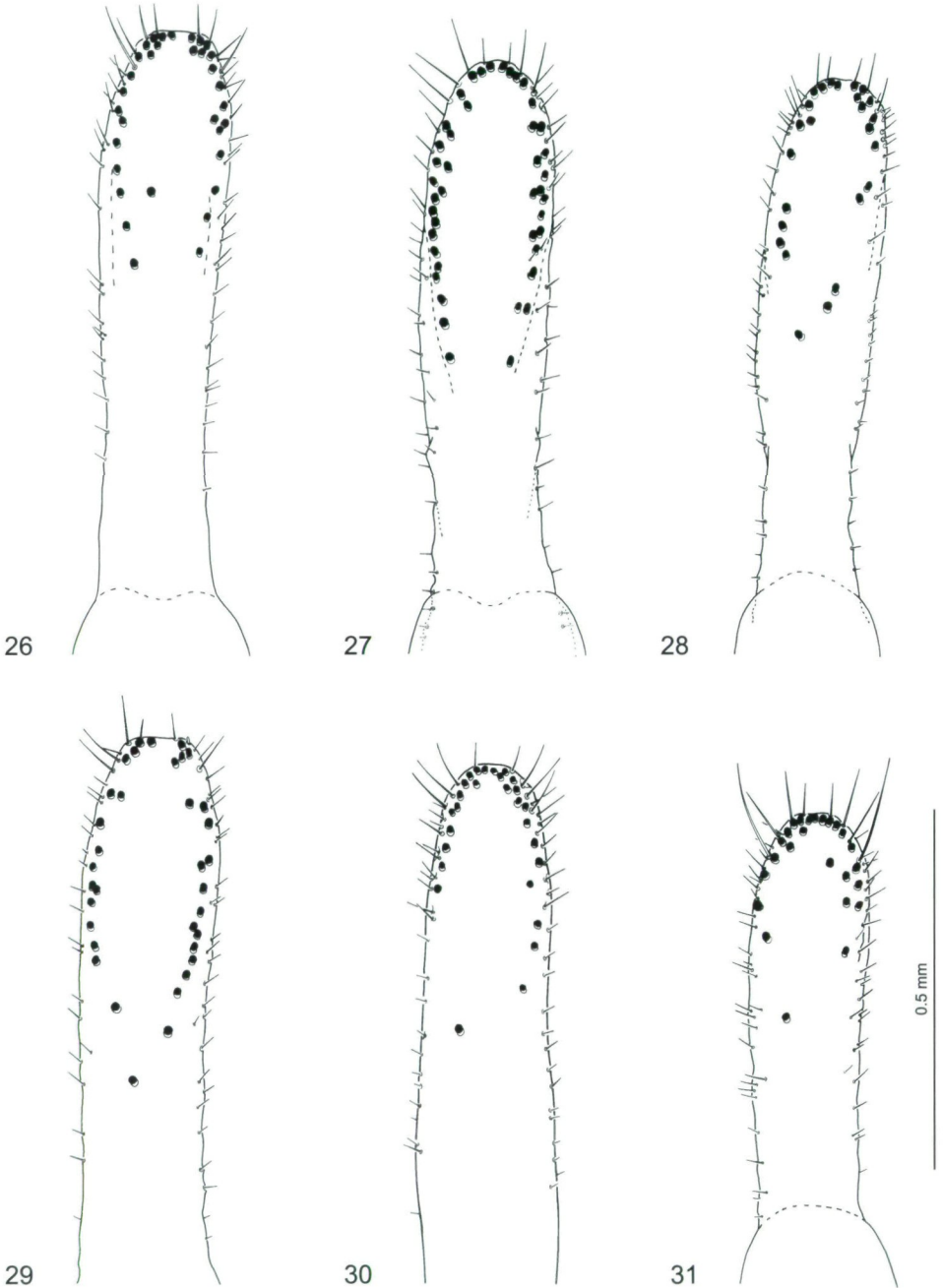
Figs. 7 - 13: 7) mouthparts of *Hesperosoma britakaiserae*; 8) labial palpi of *Misanthlius sikkimensis*; 9 - 11: mesosternum of 9) *Hesperosoma puetzi*; 10) *H. britakaiserae*; 11) *H. excellens*; 12 - 13: male sternite VII of 12) *H. britakaiserae*; 13) *Misanthlius pecki*.



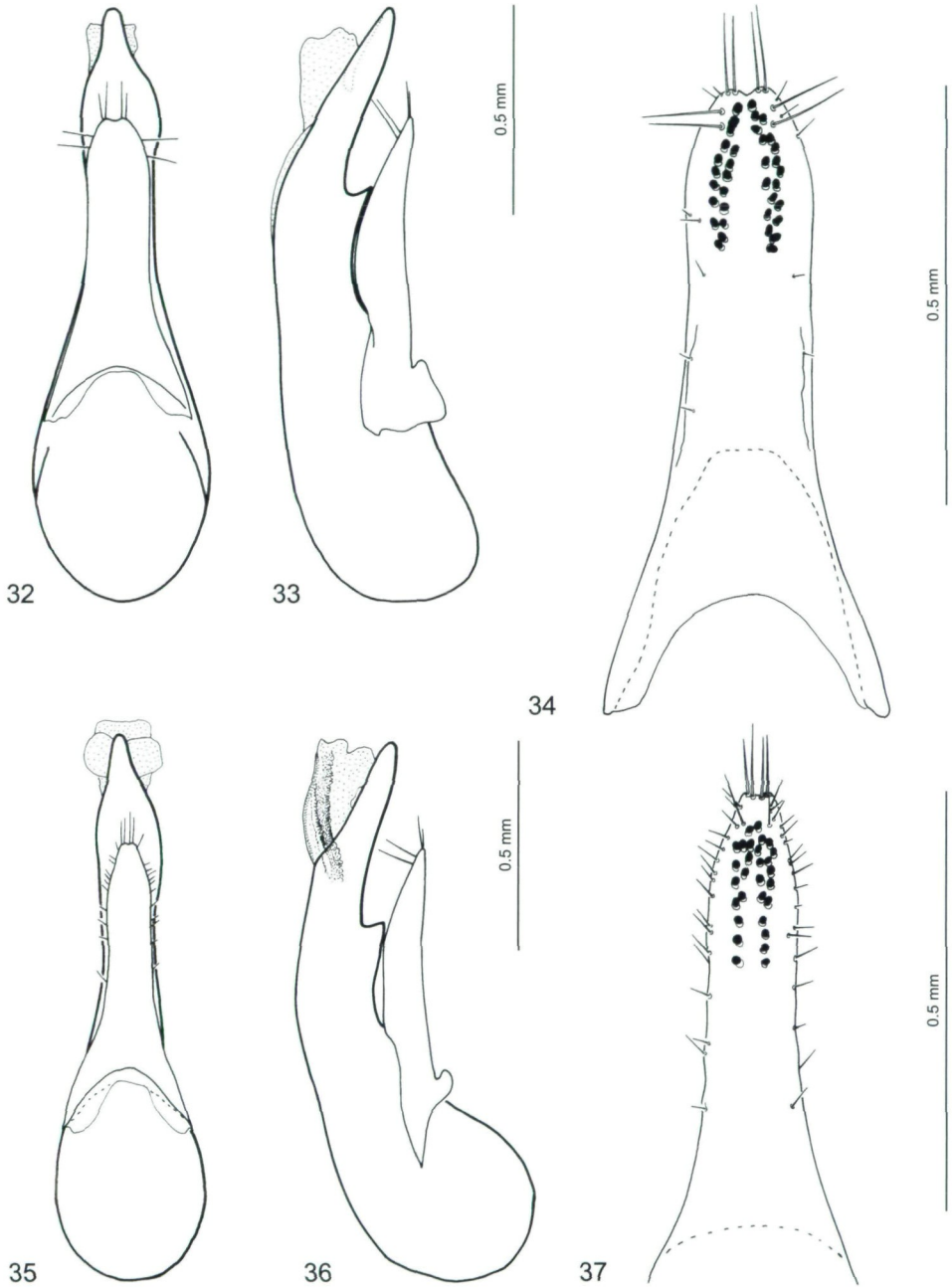
Figs. 14 - 19: Aedeagus of 14, 15) *Hesperosoma malaisei*; 16, 17) *H. chinense*; 18, 19) *H. puetzi* – 14, 16, 18: ventral view; 15, 17, 19: lateral view.



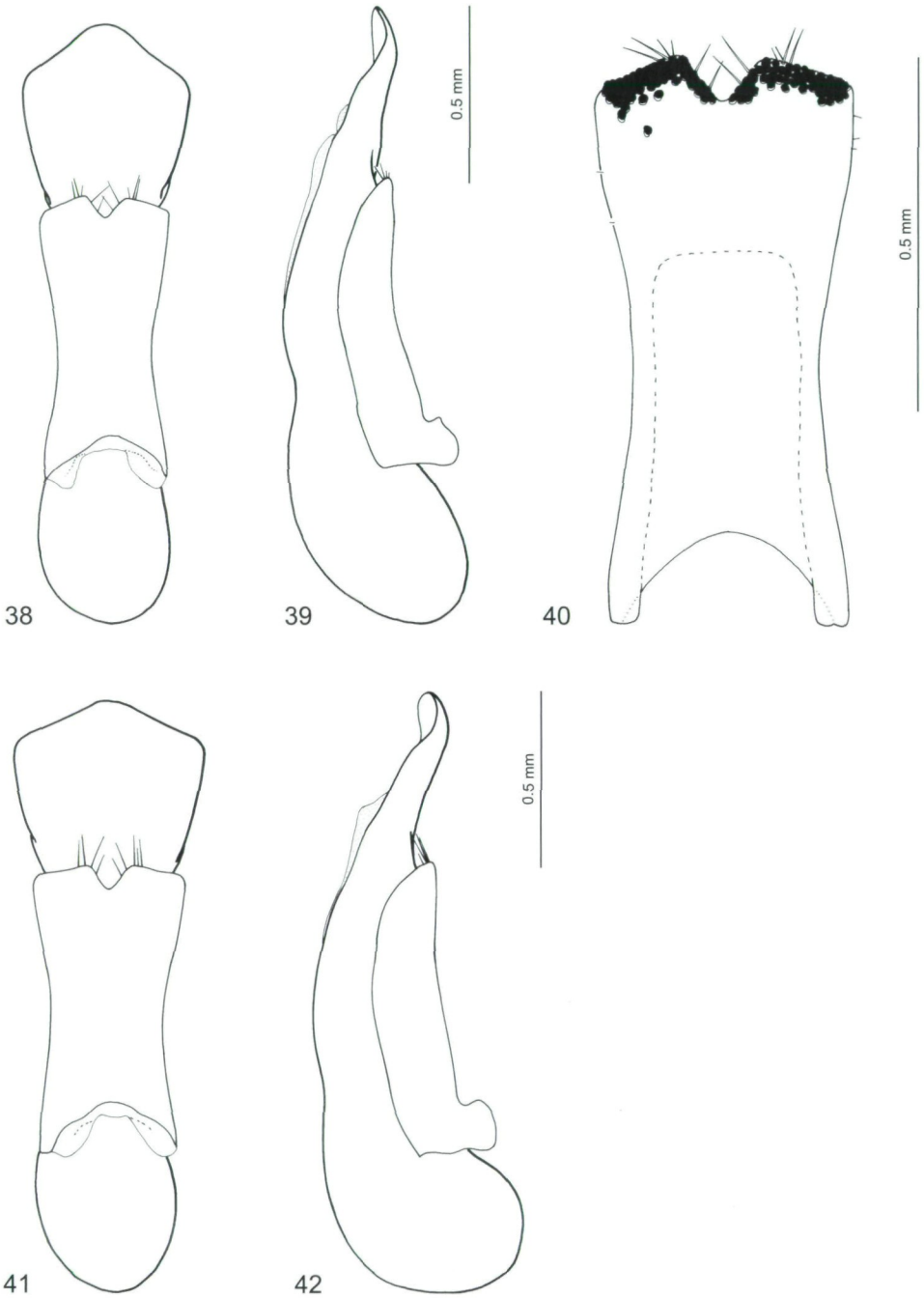
Figs. 20 - 25: Aedeagus of 20, 21) *Hesperosoma flavoterniale*; 22, 23) *H. britakaiserae*; 24, 25) *H. mishmiense* – 20, 22, 24: ventral view; 21, 23, 25: lateral view.



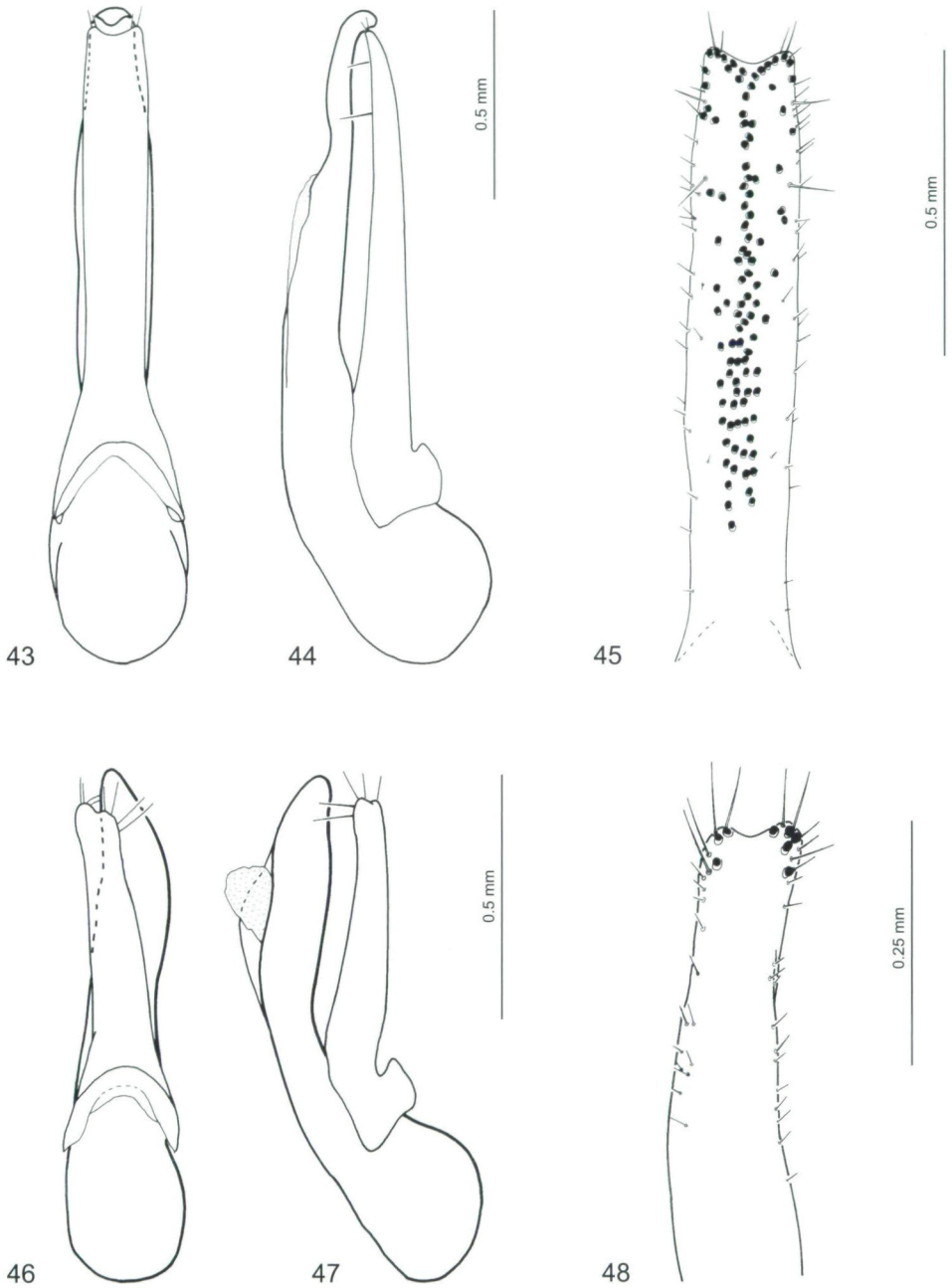
Figs. 26 - 31: Paramere of 26) *Hesperosoma malaisei*; 27) *H. chinense*; 28) *H. puetzi*; 29) *H. flavoterminalis*; 30) *H. britakaiserae*; 31) *H. mishmiense*.



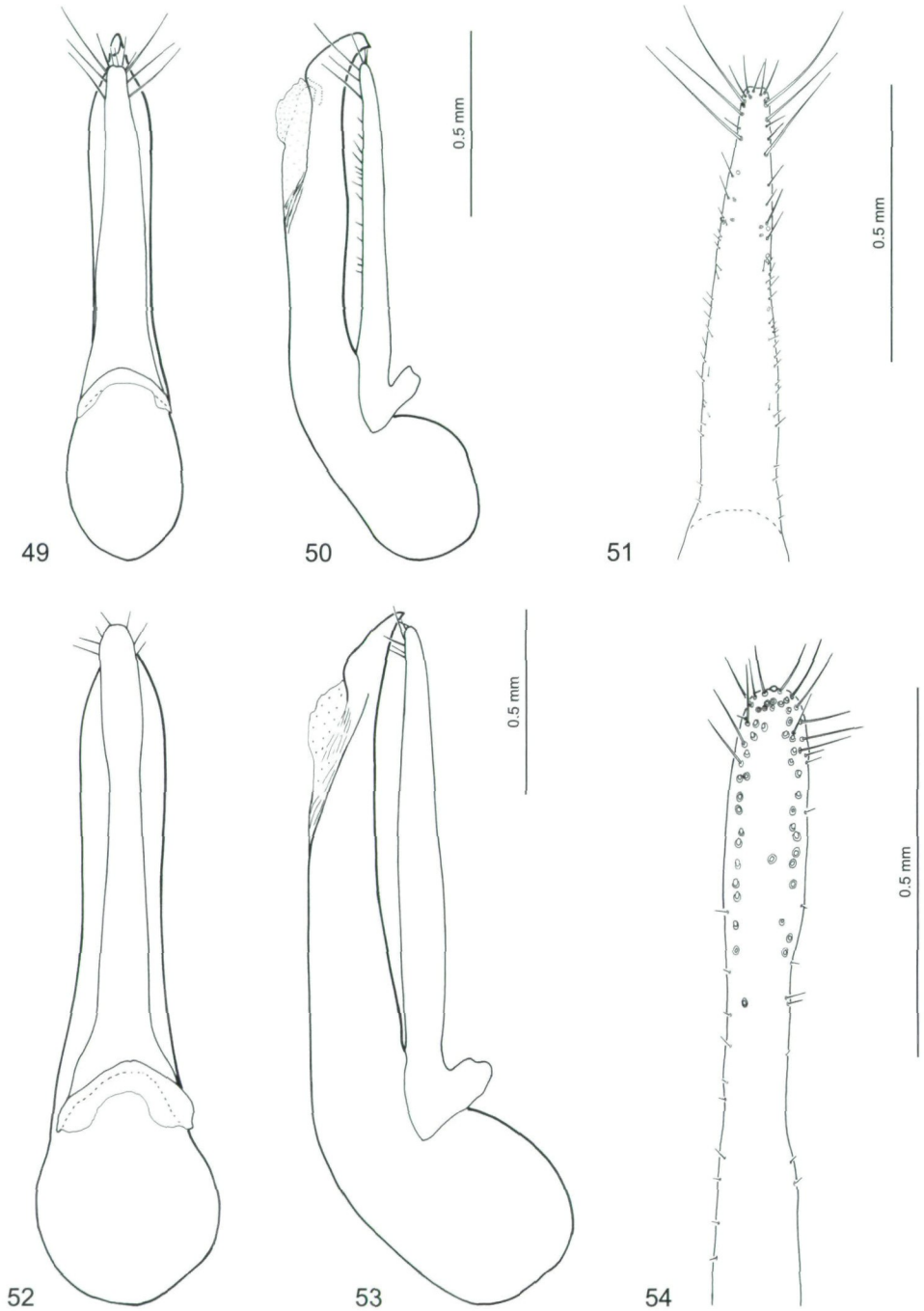
Figs. 32 - 37: Aedeagus of *Hesperosoma excellens*; 32 - 34) China; 35 - 37) Vietnam. – 32, 35: ventral view; 33, 36: lateral view; 34, 37: paramere.



Figs. 38 - 42: Aedeagus of *Hesperosoma klapperichi*; 38 - 40) Hubei; 41, 42) Fujian. – 38, 41: ventral view; 39, 42: lateral view; 40: paramere.



Figs. 43 - 48: Aedeagus of 43 - 45) *Hesperosoma meghalayense*; 46 - 48) *Hesperoschema sauteri*. – 43, 46: ventral view; 44, 47: lateral view; 45, 48: paramere.



Figs. 49 - 54: Aedeagus of 49 - 51) *Misanthlius pecki*; 52 - 54) *M. sikkimensis*. – 49, 52: ventral view; 50, 53: lateral view; 51, 54: paramere.

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Autor(en)/Author(s): Schillhammer Harald

Artikel/Article: [Critical notes on the subtribe Anisolinina with descriptions of nine new species \(Coleoptera: Staphylinidae: Staphylininae\). 251-277](#)