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## On some micropterous species of Athetini from Nepal and China (Coleoptera: Staphylinidae, Aleocharinae)

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**A b s t r a c t :** *Emmelostiba manasluensis* sp. n. (central Nepal), *Atheta (Microdota) hetzeli* sp. n. (central Nepal), *A. (M.) hirthei* sp. n. (central Nepal), *A. (M.) mardiensis* sp. n. (central Nepal), *A. (M.) elisa* sp. n. (China: Shaanxi), and *Oroekklima proiecta* sp. n. (China: Sichuan) are described and distinguished from similar congeners. Their primary and secondary sexual characters are illustrated. The previously unknown male sexual characters of *Oroekklima daxuensis* PACE are figured. New records of *Oroekklima daxuensis* and *Geostiba chinensis* PACE are presented.

**Key words :** Coleoptera, Staphylinidae, Aleocharinae, Athetini, *Emmelostiba*, *Atheta*, *Oroekklima*, *Geostiba*, China, Himalaya, Nepal, new species, endemism.

### 1. Introduction

The Aleocharinae of the Himalaya and particularly those of China are poorly known. Primarily based on material collected only in the last two decades, a vast number of new aleocharine taxa have recently been described from these regions, especially by Roberto Pace, Monteforte d'Alpone (for a small selection of articles see reference section). Below, six additional species of brachypterous Athetini are described and additional records of two recently described species are reported, based on material collected by Jon Cooter (Hereford), Andreas Hetzel (Seeheim-Jugenheim), Gunnar Hirthe (Rostock), Peter Hlaváč (Ružomberok), Andreas Pütz (Eisenhüttenstadt), Michael Schülke (Berlin), and David Wrase (Berlin) during recent field trips to Nepal and China, respectively. The material found by A. Hetzel was kindly made available to me by Benedikt Feldmann, Münster.

### 2. Material and measurements

The material examined is deposited in the following collections:

SMTD ..... Staatliche Naturhistorische Sammlungen Dresden  
cAss ..... author's private collection  
cFel ..... private collection Benedikt Feldmann, Münster  
cHir ..... private collection Gunnar Hirthe, Rostock  
cPüt ..... private collection Andreas Pütz, Eisenhüttenstadt  
cSch ..... private collection Michael Schülke, Berlin

Head length was measured from the anterior margin of the clypeus to the hind margin of the head.

### 3. Descriptions and additional records

#### *Emmelostiba manasluensis* sp. n. (Figs. 1-5)

**H o l o t y p e** ♂: C-Nepal, Manaslu massif, Barapokhari Lekh, 23km NE Besisahar vill., 28°21'N, 84°33'E, 14.IX.2000, leg. A. Hetzel / 3800-4100m, sieved from moss and *Rhododendron* leaf litter / Holotypus ♂ *Emmelostiba manasluensis* sp. n. det. V. Assing 2001 (cAss).

**P a r a t y p e s**: 1♂, 3♀♀ [1♀ teneral]; same data as holotype (cFel, cAss).

**D e s c r i p t i o n**: 2.2 - 2.4 mm. Head and abdominal segments V - VII blackish; pronotum, elytra, abdominal segments III - IV and abdominal apex only slightly lighter, blackish brown; antennae dark brown, with the basal three antennomeres somewhat lighter; legs pitchy brown.

Head distinctly transverse, 1.15 - 1.25 as wide as long, and of subtriangular shape (similar to that in *Amischa*); integument dorsally with shallow microreticulation and with sparse and extremely fine, barely noticeable puncturation; eyes not projecting from lateral outline of head and small, their diameter approximately one third the length of postgenae in dorsal view. Antenna with antennomeres I and II oblong and of subequal length, III oblong and slightly shorter than II; IV weakly transverse; V - X of increasing width and increasingly transverse; preapical antennomeres approximately twice as wide as long.

Pronotum 1.16 - 1.23 times as wide as long and 1.10 - 1.16 times as wide as head; maximal width in anterior half; posterior angles weakly marked; microsculpture similar to that of head or weaker; puncturation similar to that of head or more distinct; pubescence directed caudad along midline and diagonally latero-caudad in lateral area.

Elytra extremely short, at suture 0.52 - 0.55 times as long and approximately as wide as pronotum; microreticulation similar to that of pronotum; puncturation slightly more distinct than that of pronotum; hind wings completely reduced. Legs relatively short.

Abdomen approximately 1.2 times as wide as elytra, maximal width at segments V - VI; tergites III - V with shallow and impunctate anterior impressions; tergite VI without impression; microreticulation similar to that of forebody; puncturation on tergites III - V fine and sparse, on tergites VI - VII even finer and sparser; posterior margin of tergum VII without palisade fringe.

♂: tergite VIII posteriorly almost truncate; sternite VIII much longer than tergite VIII, its posterior margin broadly convex (Fig. 4); median lobe of aedeagus with bilobed and relatively short ventral process (Figs. 1-2).

♀: tergite VIII with truncate posterior margin; sternite VIII only slightly longer than the corresponding tergite, its posterior margin broadly convex, with micropubescence and with row of modified marginal setae (Fig. 5); spermatheca as in Fig. 3.

**D e r i v a t i o n o m i n i s**: The name refers to the Manaslu Himal, where the type locality is situated.

**C o m p a r a t i v e n o t e s a n d s y s t e m a t i c s**: *E. manasluensis* is, apart

from the slightly wider and more distinctly triangular head, externally almost indistinguishable from *E. franzi* PACE, but separated from that species, as well as from the six other Himalayan representatives of the genus, *E. coiffaiti* PACE, *E. monachorum* PACE, *E. martensiana* PACE, *E. pretiosa* PACE, *E. kashmirensis* PACE, and *E. brachycephala* (CAMERON), by the morphology of the median lobe of the aedeagus and by the form of the spermatheca. For comparison, the spermatheca of *E. franzi* is illustrated in Fig. 6. *E. martensiana*, which, too, is known from the Manaslu range, additionally differs by the much larger eyes, the longer and wider elytra, and the presence of a tubercle on the ♂ tergite III. The facies and sexual characters of the Himalayan congeners are illustrated by PACE (1982a, 1984, 1985b, 1987). The Western Palearctic *E. besucheti* PACE, *E. rosai* (PACE), and *E. renominata* (LIKOVSKY) differ in various respects: more slender body shape, a more slender, longer, and not widely bifid ligula, as well as completely different primary and secondary sexual characters. For figures of these characters see PACE (1978, 1982b) and ASSING (2001). *E. zoiyai* PACE and *E. mongolica* PACE from Pakistan and Mongolia, respectively, have a much more slender body and completely different spermathecae (PACE 1985a); the male sexual characters of these species are unknown. The two Taiwanese species *E. pingtungensis* PACE and *E. kuanshanensis* PACE have a lighter coloration, more slender antennae, a less distinctly triangular head, and genitalia of different morphology, as can be inferred from the illustrations accompanying their original descriptions (PACE 1995). *E. chinensis* PACE from China has distinctly larger eyes, much longer and wider elytra, and an aedeagus of different morphology (PACE 1998a). In *E. shavrini* PACE from eastern Siberia, the head and pronotum are less transverse, the median lobe of the aedeagus is more slender (especially in lateral view), and the tips of the bifid apex of the ventral process of the median lobe are widely separated (PACE 1998b).

Judging from external characters (body shape, proportions, morphology of antennae, punctuation, microsculpture, etc.), the morphology of the mouthparts (ligula, maxillary palpus), the secondary sexual characters (tergite and sternite VIII), and the genitalia (especially the internal structures of the aedeagus and the morphology of the spermatheca), *Emmelostiba* most likely represents a polyphyletic taxon. The original characterization and subsequent interpretation of the genus are primarily based on the bifid ventral process of the median lobe of the aedeagus (see papers cited above). This condition, however, appears to have evolved independently in various genera and tribes of Aleocharinae, e. g. in some Athetini, Oxypodini, and Autaliini (ASSING 1997, 1998, 1999). Besides, the absence/presence of a bifid ventral process may be subject to intrageneric variation, as is the case, for instance, in *Zoosetha* MULSANT & REY (ASSING 1998). It is very likely that future phylogenetic studies including the species currently attributed to *Emmelostiba* will result in the necessity to split up the genus, to erect new genera, and/or to move the species to other genera.

**Distribution and bionomics:** It can be inferred from external morphology (reduced eyes and wings) and the elevation of the type locality that *E. manasluensis* probably has a restricted distribution and is endemic to the Manaslu Himal in central Nepal. It was collected together with *Leptusa yakorum* PACE, *L. manasluensis* ASSING, and the following species by sifting moss and *Rhododendron* litter at an altitude of 3800 - 4100 m.

***Atheta (Microdota) hetzeli* sp. n. (Figs. 7-11)**

**H o l o t y p e** ♂: C-Nepal, Manaslu massif, Barapokhari Lekh, 23km NE Besisahar vill., 28°21'N, 84°33' E, 14.IX.2000, leg. A. Hetzel / 3800-4100m, sieved from moss and *Rhododendron* leaf litter / Holotypus ♂ *Atheta hetzeli* sp. n. det. V. Assing 2001 (cAss).

**P a r a t y p e s**: 1♂, 3♀♀ [1♂, 2♀♀ teneral]: same data as holotype (cFel, cAss); 1♀ [teneral]: C-Nepal, Manaslu massif, Barapokhari Lekh, 3600-3800m, 16km NE Besisahar vill. 7 28°20'N, 84°31' E, 12.IX.2000, leg. A. Hetzel (cFel).

**D e s c r i p t i o n**: 2.2 - 2.4 mm. Body brown, with abdominal tergites V, VI, and anterior half of VII dark brown.

Head subcircular, indistinctly transverse; eyes small, less than half the length of postgenae and only weakly projecting from lateral outline of head; integument dorsally with extremely fine and relatively sparse puncturation, and with distinct but shallow microreticulation. Antenna with antennomeres I and II oblong and of subequal length, III oblong, but distinctly shorter than II; IV subquadrate; V - X of increasing width and increasingly transverse; preapical antennomeres approximately twice as wide as long.

Pronotum 1.15 - 1.20 times as wide as long and 1.15 - 1.20 times as wide as head; maximal width in anterior half, nearer to middle than to anterior angles; posterior angles broadly rounded, ill-defined; microsculpture and puncturation similar to those of head; pubescence directed caudad along posterior 3/4 and cephalad along anterior 1/4 of midline, and diagonally latero-caudad in lateral area.

Elytra very short, at suture approximately 0.65 times as long as and at hind margin only slightly wider than pronotum; puncturation more distinct than that of pronotum and weakly granulose; microreticulation indistinct, surface therefore more shining than that of head and pronotum; hind wings completely reduced.

Abdomen almost 1.2 times as wide as elytra, maximal width at segments V - VI; tergites III - V with shallow and impunctate anterior impressions; tergite VI without impression; microreticulation distinct; puncturation very fine and rather sparse; posterior margin of tergite VII without palisade fringe.

♂: posterior margin of tergite VIII weakly concave in the middle; sternite VIII much longer than tergite VIII, its posterior margin weakly convex (Fig. 9); median lobe of aedeagus as in Figs. 7-8.

♀: tergite VIII with weakly convex posterior margin; sternite VIII only slightly longer than the corresponding tergite, its posterior margin in the middle weakly concave, with micropubescence and with row of modified marginal setae (Fig. 10); spermatheca as in Fig. 11.

**D e r i v a t i o n o m i n i s**: The species is dedicated to the carabidologist Andreas Hetzel, Seeheim-Jugenheim, who collected not only the types of this species, but also those of *Emmelostiba manasluensis* sp. n.

**C o m p a r a t i v e n o t e s**: According to PACE (1990), the subgenus *Microdota* MULSANT & REY is represented in the Himalaya by more than 80 species, from all of which *Atheta hetzeli* is distinguished by the sexual characters. For figures illustrating the genitalia of the other species see PACE (1990).

**D i s t r i b u t i o n a n d b i o n o m i c s**: The reduced eyes and wings, as well as the elevation of the type locality suggest that *A. hetzeli* is endemic to the Manaslu Himal in central Nepal. It was collected together with *Leptusa yakorum* PACE, *L. manasluensis*

ASSING, and *Emmelostiba manaslensis* sp. n. by sifting moss and *Rhododendron* litter at an altitude of 3800 - 4100 m.

***Atheta (Microdota) hirthei* sp. n. (Figs. 12-16)**

**H o l o t y p e** ♂: NEPAL, Annapurna South Himal, oberh. Khopra, "Khaver lake", N28°29'56", E83°45'25", 46-4700m, 23.5.2001, leg. Hirthe / Holotypus ♂ *Atheta hirthei* sp. n. det. V. Assing 2002 (SMTD).

**P a r a t y p e s** : 4 ♀ ♀: same data as holotype (cHir, cAss).

**D e s c r i p t i o n** : 1.6 - 2.0 mm. Forebody brown; abdomen blackish, except for the lighter apex; legs yellowish brown to light brown; antennae brown to dark brown.

Head 1.3 - 1.4 times as wide as long, slightly wedge-shaped, i. e. distinctly dilated behind eyes, but posterior angles broadly rounded, weakly marked; eyes small and not distinctly projecting from lateral outline of head, temples in dorsal view approximately three times as long as eyes or nearly so; integument dorsally with extremely fine, barely noticeable, and relatively sparse puncturation, and with distinct microreticulation. Antenna with antennomeres I - III oblong and of decreasing length; IV subquadrate; V - X of increasing width and increasingly transverse; preapical antennomeres more than twice as wide as long.

Pronotum 1.20 - 1.25 times as wide as long and 1.10 - 1.15 times as wide as head; maximal width in anterior half, nearer to middle than to anterior angles; posterior angles broadly rounded, ill-defined; microsculpture and puncturation similar to those of head; pubescence directed caudad along posterior 3/4 and cephalad along anterior 1/4 of midline, and diagonally latero-caudad in lateral area.

Elytra very short, at suture approximately half the length of pronotum or indistinctly longer, and at hind margin approximately as wide as pronotum; puncturation rather sparse and very fine, but more distinct than that of pronotum; microreticulation indistinct, surface therefore more shining than that of head and pronotum; hind wings completely reduced.

Abdomen slightly more than 1.2 times as wide as elytra, maximal width at segments V - VI; tergites III - V with shallow and impunctate anterior impressions; tergite VI without impression; microreticulation distinct; puncturation very sparse and fine; posterior margin of tergite VII without palisade fringe.

♂: posterior margin of tergite VIII truncate; sternite VIII longer than tergite VIII (but less elongate than in *A. hetzeli*), its posterior margin convex (Fig. 15); median lobe of aedeagus as in Figs. 12-13.

♀: tergite VIII as in ♂; sternite VIII only slightly longer than the corresponding tergite, its posterior margin in the middle weakly concave, with micropubescence and with row of modified marginal setae (Fig. 16); spermatheca as in Fig. 14.

**D e r i v a t i o n o m i n i s** : The species is dedicated to Gunnar Hirthe, Rostock, who collected not only the types of this species, but also those of *A. mardiensis* sp. n.

**C o m p a r a t i v e n o t e s** : Among the known Himalayan species of the subgenus *Microdota*, this species is most similar to *Atheta maharigaonensis* PACE from West Nepal, but distinguished by the darker coloration, the broader ventral process of the median lobe of the aedeagus (ventral view), and by the shape of the spermatheca, which

has a stouter, shorter capsule and a slightly shorter duct; for illustrations of the genitalia of *A. maharigaonensis* see PACE (1990).

**Distribution and bionomics:** The strongly reduced eyes and wings, as well as the elevation of the type locality suggest that *A. hirthi* is endemic to the Annapurna South Himal in central Nepal. The types were collected at an altitude of 4600 - 4700 m.

***Atheta (Microdota) mardiensis* sp. n. (Figs. 17-22)**

**Holotype** ♂: NEPAL, Annapurna Region, Mardi Himal (westl. Mardi Khola), Rhododendronwald, gesiebe, 3950m, 15.5.2001, leg. G. Hirthe / Holotypus ♂ *Atheta mardiensis* sp. n. det. V. Assing 2002 (SMTD).

**Paratypes**: 6♂♂, 5♀♀: same data as holotype (cHir, cAss).

**Description**: 1.9 - 2.4 mm. Forebody dark brown; abdomen blackish, with the apex slightly lighter; legs testaceous to light brown; antennae dark brown, with the basal three or four antennomeres testaceous to light brown.

Head transverse, approximately 1.2 times as wide as long, and somewhat wedge-shaped, i. e. distinctly dilated behind eyes; posterior angles weakly marked, broadly rounded; eyes very small and not distinctly projecting from lateral outline of head; temples approximately 4 times as long as eyes in dorsal view; integument dorsally with fine and relatively sparse puncturation, and with distinct microreticulation. Antenna with antennomeres I-III oblong and of decreasing length; III relatively slender, approximately twice as long as wide; IV subquadrate; V - X of increasing width and increasingly transverse; preapical antennomeres approximately twice as wide as long.

Pronotum approximately 1.2 times as wide as long and 1.1 times as wide as head; maximal width a little anterior to middle; posterior angles broadly rounded, ill-defined; microsculpture more distinct and puncturation finer than on head; pubescence directed caudad along midline, and diagonally latero-caudad in lateral area.

Elytra very short, approximately as wide as and at suture approximately half the length of pronotum; puncturation more distinct and denser than that of pronotum; with distinct microsculpture; hind wings completely reduced.

Abdomen approximately 1.2 times as wide as elytra, maximal width at segments V - VI; tergites III - V with shallow and impunctate anterior impressions; tergite VI without impression; microreticulation distinct; puncturation fine, but distinct, and rather sparse; posterior margin of tergite VII without palisade fringe.

♂: head dorsally extensively flattened or weakly impressed; pronotum along midline with extensive, but shallow impression; posterior margin of tergite VIII in the middle weakly concave and slightly serrate (Fig. 20); sternite VIII much longer than tergite VIII, its posterior margin convex (Fig. 21); median lobe of aedeagus with ventral process of distinctive shape, especially in ventral view (Figs. 17-18).

♀: head and pronotum unmodified; tergite VIII with weakly bisinuate posterior margin; sternite VIII only slightly longer than the corresponding tergite, its posterior margin in the middle weakly concave, with micropubescence and with row of modified marginal setae (Fig. 22); spermatheca as in Fig. 19.

**Derivatio nominis:** The name is derived from the Mardi Himal, where the type locality is situated.

**Comparative notes:** From other Himalayan congeners of *Microdota* with similarly short elytra and small eyes, *A. mardiensis* is readily distinguished by the sexual dimorphism of the head and pronotum, by the shape of the ♂ tergite VIII, and especially by the morphology of the aedeagus and the spermatheca.

**Distribution and bionomics:** The strongly reduced eyes and wings, as well as the elevation of the type locality suggest that *A. mardiensis* is endemic to the Annapurna range, possibly only to the Mardi Himal, in central Nepal. The types were sifted in a *Rhododendron* forest at an altitude of almost 4000 m. One dissected female had a mature egg in the ovaries.

***Atheta (Microdota) elisa* sp. n. (Figs. 23-29)**

**Holotype** ♂: CHINA: S-Shaanxi (Daba Shan), mountain range N pass 22 km NW Zhenping, 32°01'N, 109°21'E, 2850m, 14.VII.2001, leg. M. Schülke [C01-12] / N-slope near mountain top, Abies, bushes, dead wood, (sifted) [C01-12] / Holotypus ♂ *Atheta elisa* sp. n. det. V. Assing 2002 (cAss).

**Paratypes:** 1♂, 3♀: same data as holotype (cSch, cAss).

**Description:** 2.2 - 2.7 mm. Body ferruginous to brown, with the head, abdominal segment VII and anterior half of segment VIII blackish; legs testaceous; antennae dark brown, with the three basal antennomeres lighter.

Head subcircular and transverse, 1.09 - 1.16 times as wide as long; posterior angles weakly marked, broadly rounded; eyes very small and not distinctly projecting from lateral outline of head; temples approximately 3 times as long as eyes in dorsal view; integument dorsally with fine and relatively sparse puncturation, and with distinct microreticulation. Antenna with antennomeres I-III oblong and of decreasing length; IV subquadrate or weakly transverse; V - X of increasing width and increasingly transverse; preapical antennomeres approximately twice as wide as long.

Pronotum approximately 1.16 - 1.25 times as wide as long and 1.15 - 1.20 times as wide as head; maximal width in anterior half, nearer to middle than to anterior angles; posterior angles broadly rounded, ill-defined; microsculpture more distinct, and puncturation finer and denser than on head; pubescence directed caudad along midline, and diagonally latero-caudad in lateral area.

Elytra approximately as wide as pronotum and very short, at suture approximately half the length of pronotum; puncturation more distinct and denser than that of head and pronotum; with shallow microsculpture; hind wings completely reduced.

Abdomen approximately 1.2 times as wide as elytra, maximal width at segments V - VI; tergites III - V with shallow and impunctate anterior impressions; tergite VI without impression; microreticulation distinct; puncturation sparse and fine, but distinct; posterior margin of tergite VII without palisade fringe.

♂: head more transverse and relatively larger, dorsally extensively, but not very deeply impressed; pronotum along midline with extensive and relatively deep impression; antennomeres I - III enlarged, III only slightly longer than wide; posterior margin of tergite VIII with broad and weakly convex projection (Fig. 26); sternite VIII slightly longer than the corresponding tergite and posteriorly weakly pointed (Fig. 28); median lobe of aedeagus large, with slender (lateral view) and apically acute ventral process (Figs. 23-24).

♀: head unmodified; pronotum in the middle slightly flattened; basal antennomeres unmodified, antennomere III approximately 1.5 times as long as wide; posterior margin of tergite VIII in the middle slightly pointed (Fig. 27); sternite VIII with broadly convex posterior margin, with micropubescence and with row of modified marginal setae (Fig. 29); spermatheca as in Fig. 25.

**Derivatio nominis:** The name is the past participle of the Latin verb *elidere*, which in collocation with head means "cave in" or "impress", and refers to the impressed head and pronotum of the male.

**Comparative notes:** Slightly more than 20 *Atheta* species of the subgenus *Microdota* are known from China (PACE 1993, 1998c, 1999a, 1999b), but only one of them, *A. puetzi* PACE from the Qinling Shan in Shaanxi, has distinctly reduced eyes and elytra. From this species, *A. elisa* is readily distinguished by its stouter antennae, shorter elytra, and the completely different morphology of the genitalia, especially the aedeagus, which somewhat resembles that of some *Amischa* species. For illustrations of the genitalia of *A. puetzi* see PACE (1999a).

**Distribution and bionomics:** As can be inferred from the strongly reduced eyes and wings, as well as the elevation of the type locality, *A. elisa* is probably endemic to the Daba Shan. The types were sifted from litter of *Abies* and bushes at an altitude of almost 3000 m.

#### ***Oroekkline daxuensis* PACE (Figs. 34-39)**

**Material examined:** 1 ♀, China, W-Sichuan, Ganzi Tibet, Aut. Pref., Kangding Co., Daxue Shan, Tsheto La Pass, 30°05'N, 101°48'E, 4300-4350m, stones, moss, *Rhododendron*, 25.VI.1999, leg. Schülke (cAss); 1 ♀, Daxue Shan, Mu Ge Cuo, upper lake, 15 km NW Kangding, 30°09'N, 101°52'E, 3700m, 27.VI.-5.VII.1999, leg. Wrase (cSch); 2 ♂♂, 2 ♀♀, Ganzi Tibet, Aut. Pref., Daxue Shan, 21km W Kangding, route 318 km 2884, 30°04'N, 101°47'E, 3970m, alpine grassland, 25.VI.1999, leg. Pütz (cPüt, cAss).

**Comments:** Previously, only the female holotype of this species was known. The primary and secondary sexual characters of both sexes are as follows:

♂: tergite VIII transverse, posterior margin weakly convex (Fig. 38); sternite VIII much longer than the corresponding tergite, its posterior margin truncate (Fig. 39); median lobe of aedeagus with deeply bifid ventral process (Figs. 36-37).

♀: posterior margin of sternite VIII broadly convex (Fig. 34); spermatheca as in Fig. 35.

#### ***Oroekkline proiecta* sp. n. (Figs. 30-33)**

**Holotype** ♀: CHINA: W-Sichuan 1999, Ganzi Tibet. Aut. Pref., Batang Co. Shalui Shan, Fichtenwald 55 km NE Batang, 30°17'N, 99°31'E, Rinde, Pilze, Nadelstreu, 4300m, 1.VII., leg. M. Schülke / Holotypus ♀ *Oroekkline proiecta* sp. n. det. V. Assing 2001 (cAss).

**Paratypes:** 4 ♀♀: same data as holotype (cAss, cSch); 2 ♀♀: CHINA W.-Sichuan (Ganzi Tibet. Aut. Pref., Batang Co.) Shalui Shan, 55 km NE Batang, 4300m, 30°17'N, 99°31'E (pine-tree forest relict, meadow, 1.-3.VII.1999 D.W. Wrase (cSch).

**Description:** 2.0 - 2.4 mm. In external appearance similar to *O. daxuensis*, but distinguished as follows:

Pubescence of forebody more or less depressed, less erect than in *O. daxuensis*. Preapical antennomeres less transverse. Pronotum broader in relation to head (1.08 - 1.14 times as wide as head) and more transverse, approximately 1.2 times as wide as long.

♂: unknown.



♀: sternite VIII obtusely pointed posteriorly (Fig. 33); spermatheca of somewhat variable shape, but with less slender capsule, distally with broader cuticular intrusion, and shorter duct (Figs. 30-32).

**Derivatio nominis:** The name (Lat., adj.: projecting) refers to the distinctive shape of the ♀ sternite VIII.

**Comparative notes and remarks:** In *O. daxuensis*, the only currently known congener, the pubescence of the forebody is more erect, the preapical segments of the antennae are strongly transverse (more than twice as broad as long), the pronotum is only indistinctly wider than the head and less than 1.15 times as wide as long, the ♀ sternite VIII is broadly convex (Fig. 34), and the spermatheca is of different morphology (Fig. 35). In addition to the characters pointed out by PACE (1999a), the genus, which in facies somewhat resembles a short-winged *Ousipalia* DES GOZIS, is characterized by a more or less wedge-shaped head (similar to that in *Amischa* and *Ousipalia*), by the pubescence of the pronotum being predominantly directed caudad (midline) to diagonally latero-caudad (lateral areas), by the absence of micropubescence at the posterior margin of the ♀ sternite VIII, and by the relatively sparsely pubescent and anteriorly very broad tergite X.

**Distribution and bionomics:** External characters (reduced wings, small eyes) as well as the elevation of the type locality suggests that the species has a restricted distribution. Like *O. daxuensis*, it was collected at an altitude of more than 4000 m.

### ***Geostiba chinensis* PACE**

**Material examined:** 1♂, China, Beijing, Dong Ling Mountains, Xiaolongmen Mei Yao Yu, 39.96N, 115.43E, ca. 1500m, mixed forest litter, 16.VI.2001, leg. Cooter & Hláváč (cAss).

**Comments:** The specimen was collected near the type locality of this recently described species (PACE 1997).

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## **Zusammenfassung**

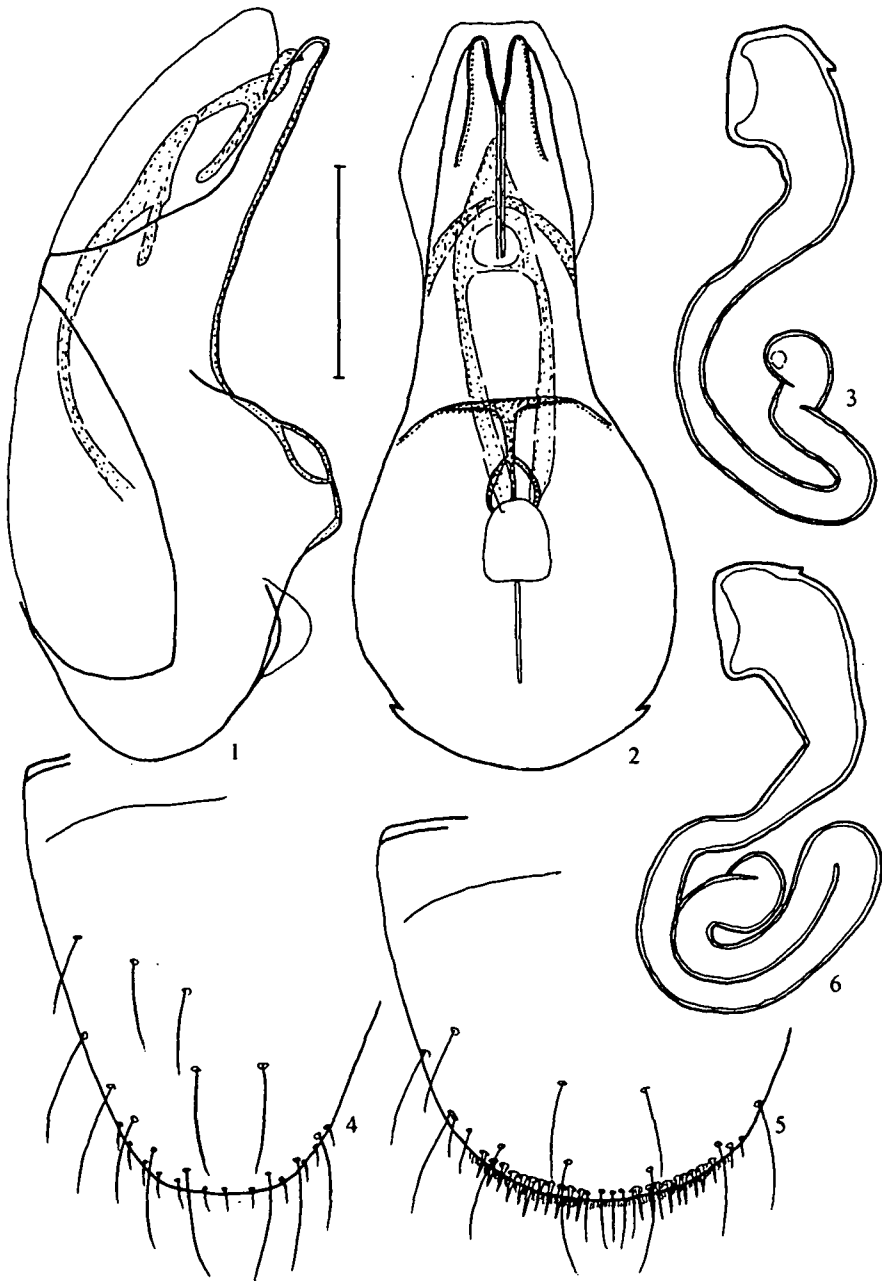
*Emmelostiba manasluensis* sp. n. (Zentral-Nepal), *Atheta (Microdota) hetzeli* sp. n. (Zentral-Nepal), *A. (M.) hirthei* sp. n. (Zentral-Nepal), *A. (M.) mardiensis* sp. n. (Zentral-Nepal), *A. (M.) elisa* sp. n. (China: Shaanxi) und *Oroekklima proiecta* sp. n. (China: Sichuan) werden beschrieben und von ähnlichen Arten unterschieden. Die primären und sekundären Sexualmerkmale werden abgebildet. Die bisher unbekanntenen männlichen Sexualmerkmale von *Oroekklima daxuensis* PACE werden beschrieben. Von *Oroekklima daxuensis* und *Geostiba chinensis* PACE werden weitere Nachweise gemeldet.

## References

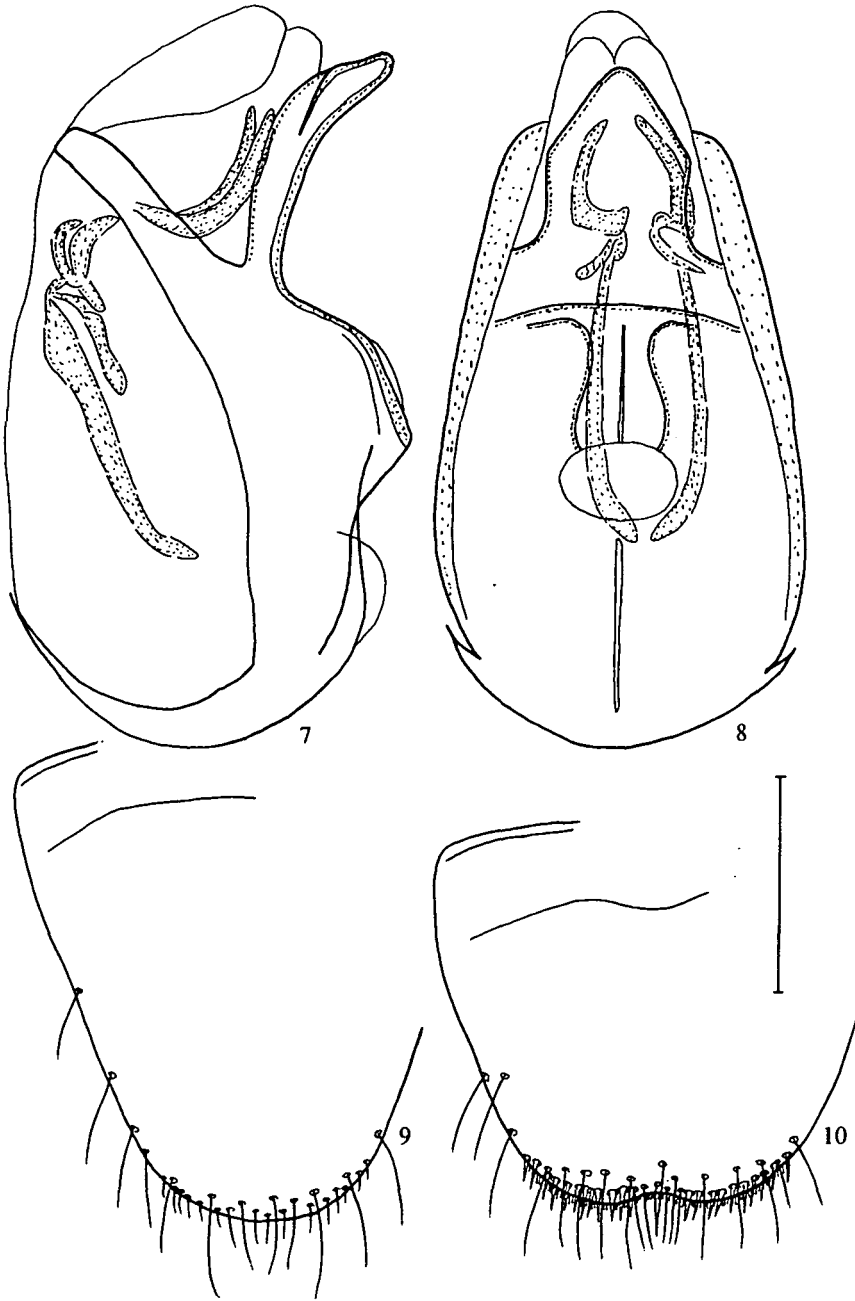
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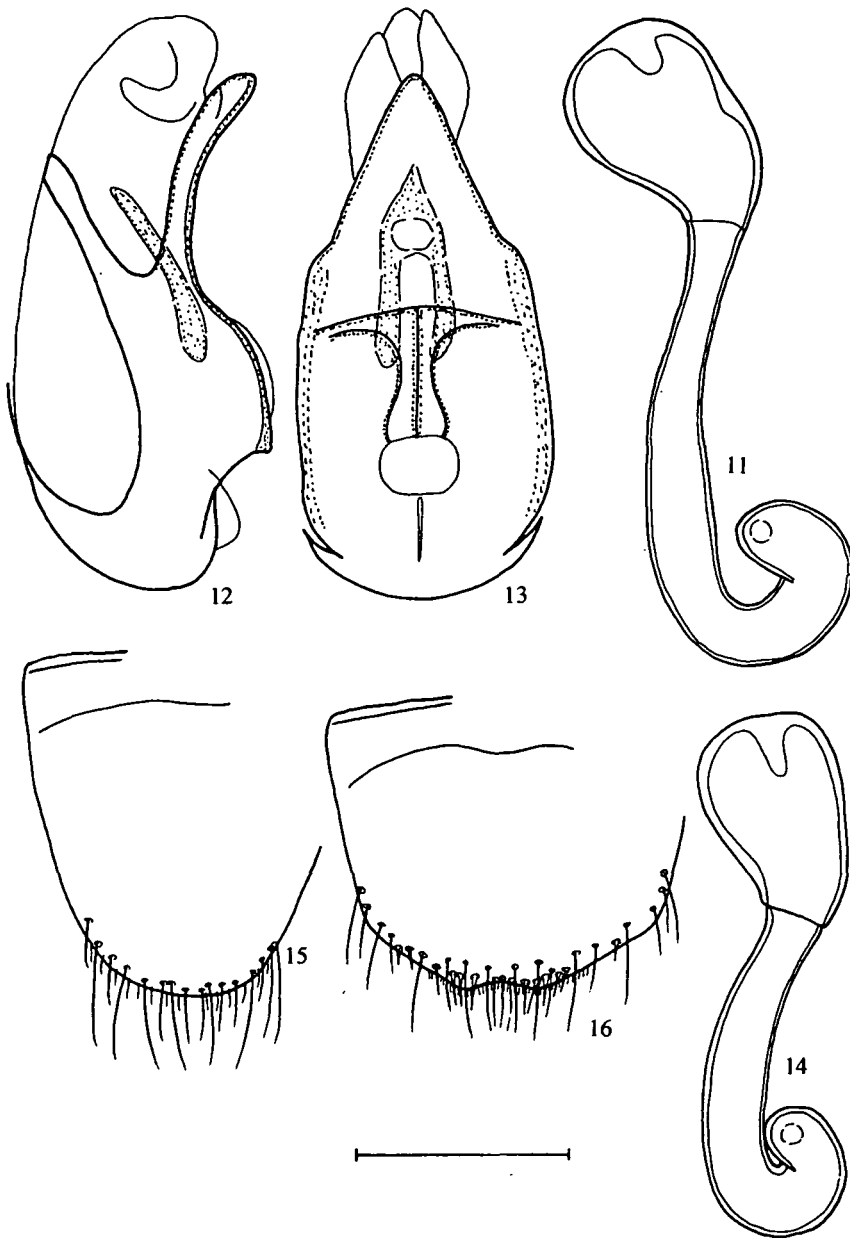
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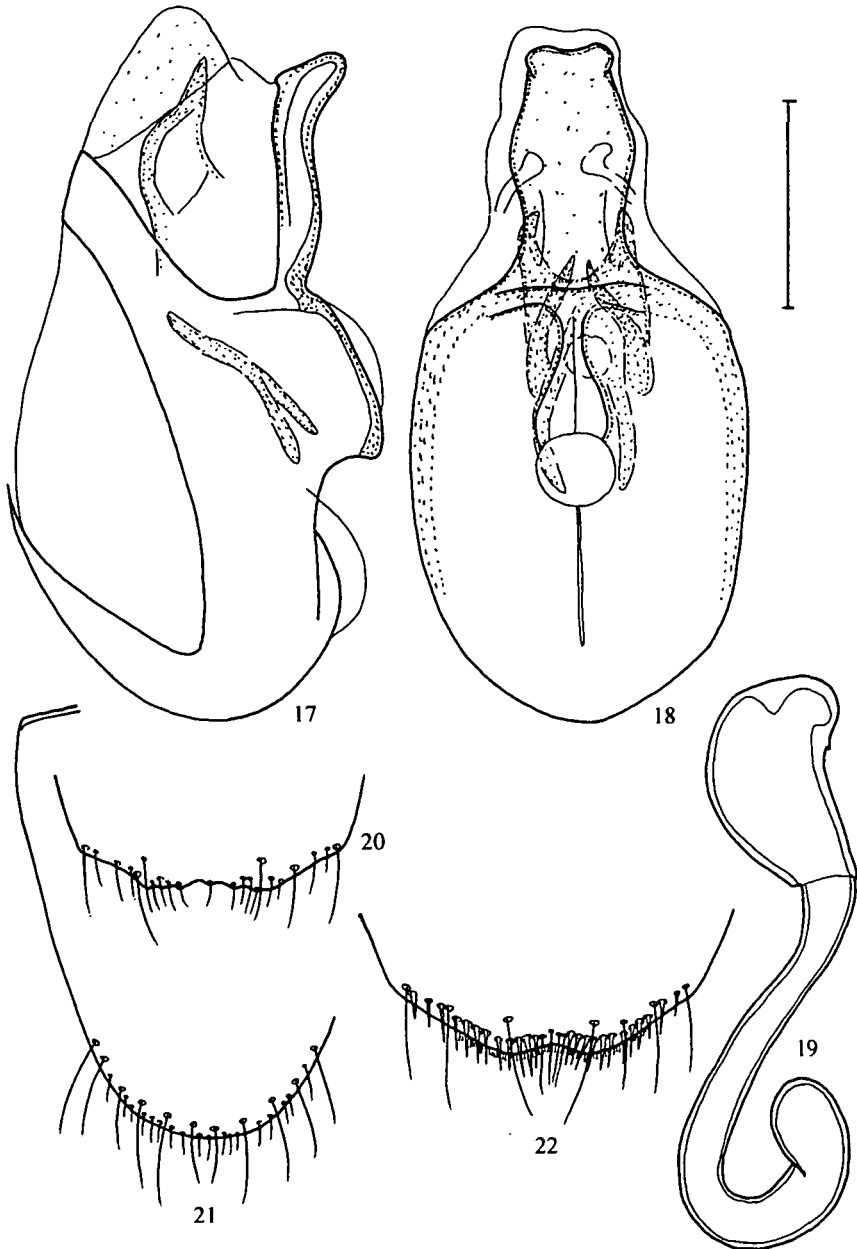
Figs. 1-6: *Emmelostiba manasluensis* sp. n. (1-5) and *E. franzi* PACE (6): 1, 2 - median lobe of aedeagus in lateral and in ventral view; 3, 6 - spermatheca; 4 - outline of  $\delta$  sternite VIII; 5 - outline of  $\text{q}$  sternite VIII; pubescence partly omitted in 4-5. Scale: 1-3, 6: 0.1 mm; 4-5: 0.2 mm.



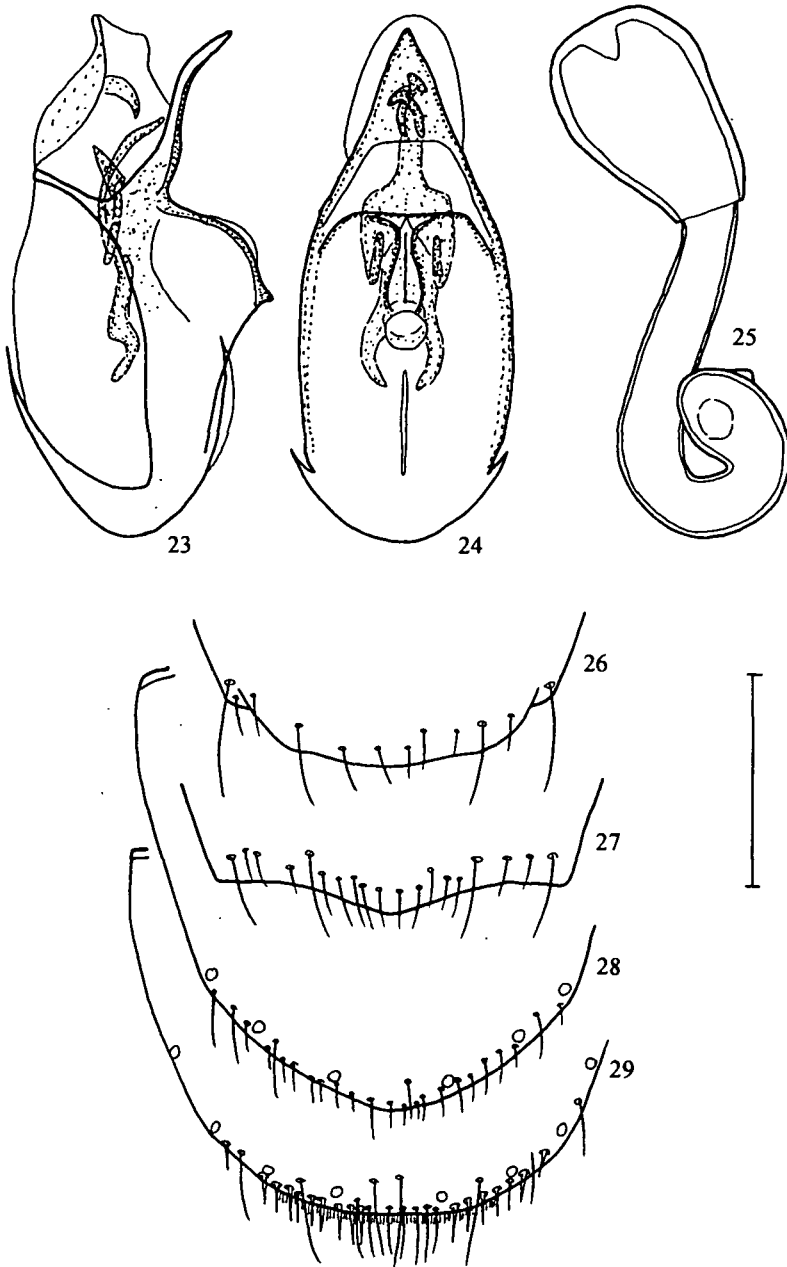
**Figs. 7-10:** *Atheta hetzeli* sp. n.: 7, 8 – median lobe of aedeagus in lateral and in ventral view; 9 – outline of ♂ sternite VIII; 10 – outline of ♀ sternite VIII; pubescence partly omitted in 9-10. Scale: 7-8: 0.1 mm; 9-10: 0.2 mm.



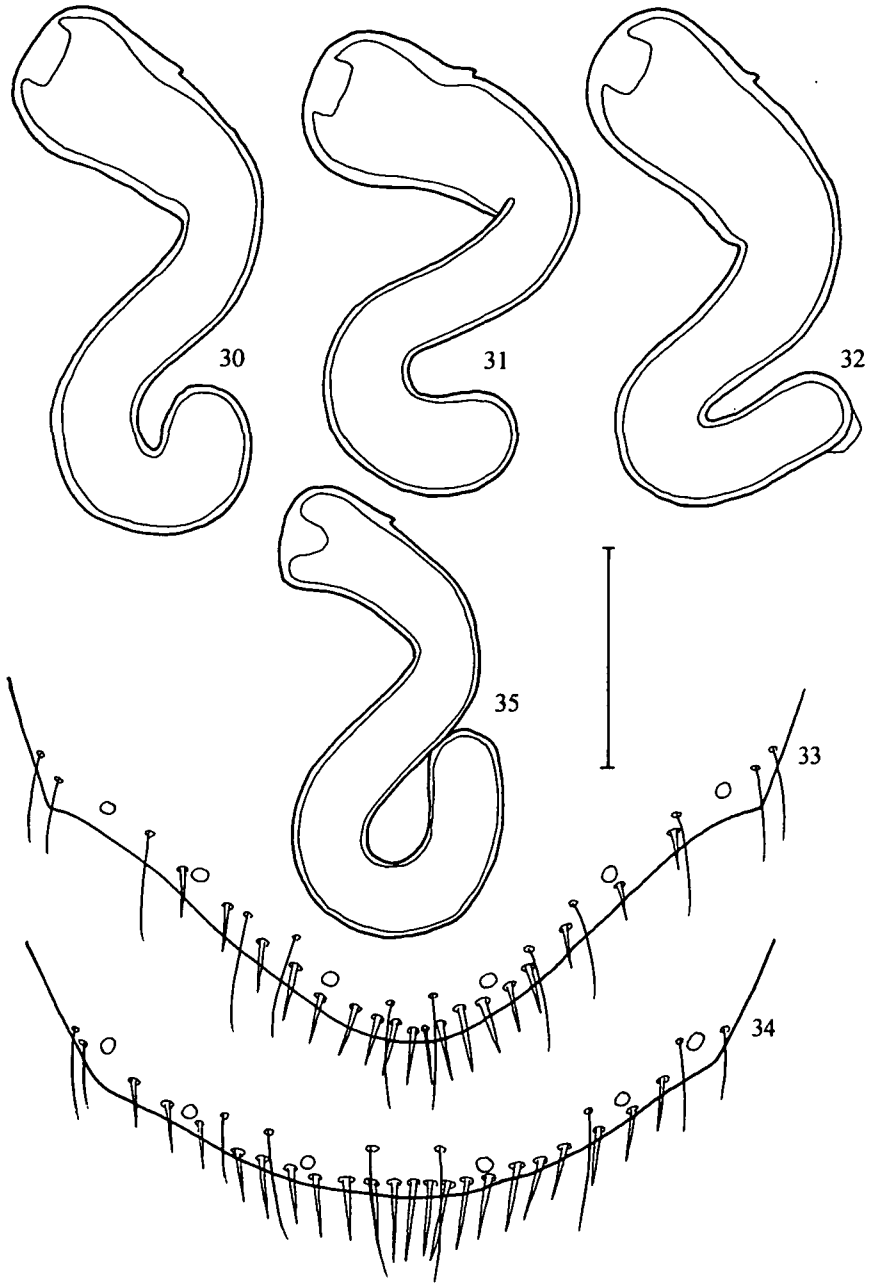
Figs. 11-16: *Atheta hetzeli* sp. n. (11) and *A. hirthei* sp. n. (12-16): 11, 14 – spermatheca; 12, 13 – median lobe of aedeagus in lateral and in ventral view; 15 – outline of ♂ sternite VIII; 16 – outline of ♀ sternite VIII; pubescence partly omitted in 15-16. Scale: 11-14: 0.1 mm; 15-16: 0.2 mm.



**Figs. 17-22:** *Atheta mardiensis* sp. n.: 17, 18 – median lobe of aedeagus in lateral and in ventral view; 19 – spermatheca; 20 – posterior margin of  $\delta$  tergite VIII; 21 – outline of  $\delta$  sternite VIII; 22 – posterior margin of  $\text{q}$  sternite VIII; pubescence partly omitted in 20-22. Scale: 17-19: 0.1 mm; 20-22: 0.2 mm.

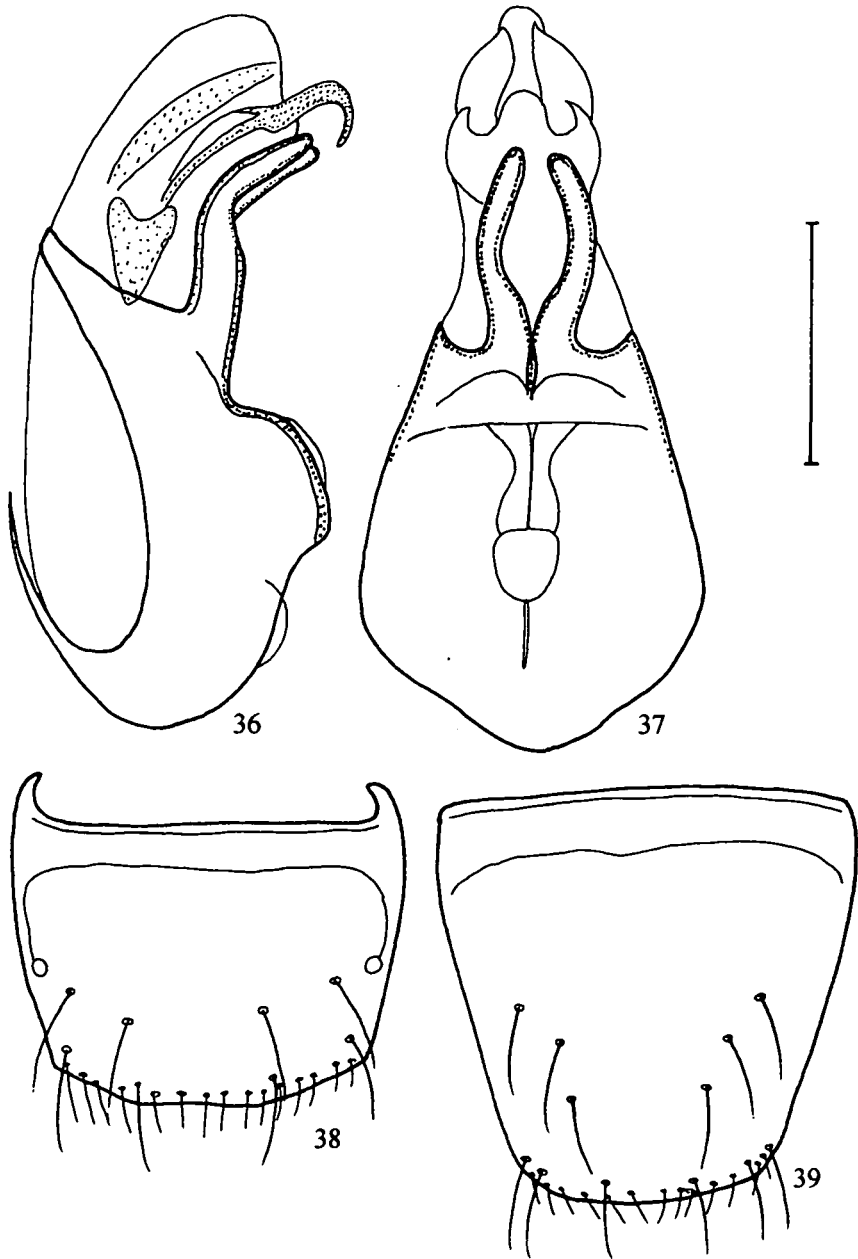


Figs. 23-29: *Atheta elisa* sp. n.: 23, 24 – median lobe of aedeagus in lateral and in ventral view; 25 – spermatheca; 26 – posterior margin of  $\delta$  tergite VIII; 27 – posterior margin of  $\varphi$  tergite VIII; 28 – outline of  $\delta$  sternite VIII; 29 – outline of  $\varphi$  sternite VIII; pubescence partly omitted in 26-29. Scale: 25: 0.1 mm; 23-24, 26-29: 0.2 mm.



**Figs. 30-35:** *Oroekklima proiecta* sp. n. (30-33) and *O. daxuensis* PACE (34-35): 30-32, 35 – spermatheca; 33, 34 – posterior margin of ♀ sternite VIII. Scale: 0.1 mm.





Figs. 36-38: *Oroekklinia daxuensis* PACE: 36, 37 – median lobe of aedeagus in lateral and in ventral view; 38 – ♂ tergite VIII; 38 – ♂ sternite VIII; pubescence partly omitted in 38-39. Scales: 36, 37: 0.1 mm; 38, 39: 0.2 mm.

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