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## On the Lomechusini fauna of Vietnam (Coleoptera: Staphylinidae: Aleocharinae)

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**Abstract:** Five species of Lomechusini from the environs of Sa Pa, North Vietnam, are described and illustrated: *Amaurodera projecta* nov.sp., *Drusilla perforans* nov.sp., *Orphnebius fansipanicus* nov.sp., *Peltonia atripalpis* nov.sp., and *Zyras (Zyras) fansipanicus* nov.sp. Three probably undescribed species remain unnamed for want of males. Type material of nine described species is revised and illustrated. The previously unknown male sexual characters of *Peltonia chinensis* (PACE, 1998) and *Tetraphonus bicolor* CAMERON, 1939 are figured for the first time. Two synonymies and two new combinations are proposed: *Tetraphonus japonicus* NAKANE, 1991 = *T. vietnamiculus* PACE, 2013; nov.syn.; *Zyras neoparageminus* HLAVÁČ, NEWTON & MARUYAMA, 2011 = *Z. subgeminus* PACE, 2012, nov.syn.; *Zyras (Zyras) funestus* (DVOŘAK, 1996), nov.comb. (ex *Orphnebius* MOTSCHULSKY, 1858); *Zyras (Glossacantha) laocaiensis* PACE, 2008, nov.comb. (ex *Pella* STEPHENS, 1833). A lectotype is designated for *Tetraphonus bicolor* CAMERON, 1939. Three species and three genera are recorded from Vietnam for the first time. The Lomechusini fauna of Vietnam is currently represented by 29 species, partly of doubtful status, in seven genera. A checklist of the Lomechusini of Vietnam is provided.

**Key words:** Coleoptera, Staphylinidae, Aleocharinae, Lomechusini, Vietnam, new species, new records, new synonymies, checklist.

### Introduction

According to a recent catalogue (HLAVÁČ et al. 2011), the aleocharine tribe Lomechusini was represented in Vietnam by 19 species, one of *Drusilla* LEACH, 1819, two of *Orphnebius* MOTSCHULSKY, 1858, five of *Pedinopleurus* CAMERON, 1939, one of *Pella* STEPHENS, 1833, and ten of *Zyras* STEPHENS, 1833. Four additional species, one of *Tetraphonus* BERNHAUER, 1915, one of *Orphnebius*, and two of *Zyras*, were described and recorded, respectively, by PACE (2004b, 2012a, 2013). Four of the *Zyras* species previously recorded from Vietnam had been assigned to the nominal subgenus. The known diversities of the Lomechusini in adjacent and nearby countries of the same region are partly lower and partly significantly greater:

Only two species of Lomechusini are currently known from Laos, one of *Drusilla* and one of *Maschwitzia* KISTNER, 1989 (HLAVÁČ et al. 2011, MARUYAMA 2004a).

The lomechusine fauna of Thailand is composed of as many as 62 described species, one of *Aenictocleptis* KISTNER & JACOBSON, 1975, one of *Aenictonia* WASMANN, 1900, one

of *Aenictophila* SEEVERS, 1965, three of *Amaurodera* FAUVEL, 1905, 14 of *Drusilla*, one of *Lamprostenus* PACE, 2004, 16 of *Orphnebius*, four of *Pedinopleurus*, one of *Pseudastilbus* CAMERON, 1950, three of *Tetrabothrus*, and 18 of *Zyras*, eight of which belong to the nominal subgenus (HLAVÁČ et al. 2011, PACE 2012a).

The known fauna of China, Hong Kong, and Taiwan is significantly more diverse. Not considering the species of *Zyras* sensu strictu, which are currently being revised and which account for nearly 70 species (described, to be described, and unnamed) alone (ASSING in press b), a total of 90 described species has been recorded: six of *Lomechusa* GRAVENHORST, 1806, seven of *Lomechusoides* TOTTENHAM, 1939, four of *Amaurodera*, one of *Cephaplakoxena* PACE, 1998, one of *Diplopleurus* BERNHAUER, 1915, thirteen of *Drusilla*, 19 of *Orphnebius*, one of *Pedinopleurus*, eleven of *Pella*, one of *Peltonia* BERNHAUER, 1936, eleven of *Tetrabothrus*, and 15 of *Zyras* (four of them belonging to the subgenus *Diaulaconia* BERNHAUER, 1928, five to *Glossacantha* GEMMINGER & HAROLD, 1868, one to *Sinozyras* PACE, 1999, and five to *Termidonia* MOTSCHULSKY, 1860) (ASSING 2015a, 2015b, in press a, HLAVÁČ et al. 2011, PACE 2012b, YAN & LI 2015a, 2015b).

Despite their usually colourful appearance and seemingly distinctive other external features, an identification of Lomechusini species is often difficult for several reasons. Certain coloration patterns and external characters may be shared by numerous species, and they may be subject to considerable intraspecific variation. Moreover, the primary and secondary characters are often rather uniform and taxonomically of little significance. This, for instance, particularly applies to the spermatheca of *Zyras* sensu strictu and *Tetrabothrus*. Often, even the shape of the median lobe of the aedeagus, which is generally of high taxonomic significance in Aleocharinae, may be subject to little interspecific variation in genera such as *Drusilla*, *Zyras*, and *Orphnebius*. Finally, except for some genera that have been treated comprehensively, e.g., *Pella* by MARUYAMA (2006), or at least regionally revised, keyed, or illustrated, e.g., *Amaurodera*, *Tetrabothrus*, and *Orphnebius* in China (ASSING 2006a, 2006b, 2015a, 2015b, in press a, YAN & LI 2015a, 2015b), most Oriental lomechusine species have been described individually in scattered articles treating various aleocharine taxa of various regions, some of them even based exclusively on females. The situation is particularly problematic for the species recorded or described from Vietnam. Most of the descriptions are inadequate: they lack important information, are poorly illustrated (e.g., DVOŘÁK 1988, 1996), and/or are based exclusively on females (see checklist at the end of this paper). Moreover, the generic or subgeneric assignment of some species is doubtful or erroneous.

Material collected during a recent field trip to North Vietnam conducted by Paul Wunderle (Mönchengladbach) and the author included ten species of Lomechusini. A comparison with type material and descriptions of species previously known from Vietnam and adjacent or nearby countries (Laos, Thailand, China) revealed that eight of them were undescribed.

## Material and methods

The material treated in this study is deposited in the following collections:

BMNH ..... The Natural History Museum, London (R. Booth)  
 NHMB ..... Naturhistorisches Museum Basel (M. Geiser, I. Zürcher)  
 NME ..... Naturkundemuseum Erfurt (M. Hartmann, assisted by W. Apfel)  
 NMP..... National Museum of Natural History, Praha (J. Hájek)  
 cAss..... author's private collection  
 cRou..... private collection Guillaume de Rougemont, Oxford  
 cWun..... private collection Paul Wunderle, Mönchengladbach

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenlab compound microscope (Carl Zeiss Jena). The images of external characters were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software. A digital camera (Nikon Coolpix 995) was used for the remaining photographs.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the anterior margin of the clypeus (without anteclypeus) to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

## Descriptions and additional records

### *Amaurodera projecta* nov.sp. (Figs 1-4, 19-23)

**Type material:** Holotype ♂: "N-Vietnam - 7 km NW Sa Pa, 22°22'48"N, 103°47'12"E, 1810 m, field margin, 31.VII.2013, V. Assing [4+2] / Holotypus ♂ *Amaurodera projecta* sp. n., det. V. Assing 2015" (cAss). Paratype ♂: "N-Vietnam - 7 km NW Sa Pa, 22°22'47"N, 103°47'10"E, 1850 m, decid. forest, 31.VII.2013, V. Assing [5+2]" (cAss).

**Etymology:** The specific epithet (Latin, adjective: projecting) alludes to the conspicuous shape of the crista apicalis of the aedeagus.

**Description:** Body length 5.7-6.2 mm; length of forebody 2.6 mm. Other measurements: head width: 0.69-0.71 mm; length of pronotum: 1.00-1.05 mm; width of pronotum: 0.75-0.77 mm; elytral length at suture: 0.50-0.51 mm; elytra width: 0.90-0.98 mm. Habitus as in Fig. 19. Coloration: forebody dark-brown; abdomen: tergites III and IV reddish to reddish-brown with the posterior portions of the paratergites infuscate, tergite V dark-brown, with the anterior half slightly to distinctly paler, tergites VI and VII dark-brown, tergite VIII dark-brown with the posterior portion yellowish-brown, segments IX-X yellowish-brown; legs with brown tibiae and yellowish tarsi, profemora brown, meso- and metafemora dark-brown to blackish with broadly yellowish bases; head blackish; pronotum and blackish brown, with the humeral angles of the elytra dark-

reddish and the elytra posterior margins narrowly pale-reddish; antennae with antennomeres I-II reddish, III-VII more or less distinctly infusate, and VIII-XI pale reddish; maxillary palpi dark-brown with the terminal palpomere pale-yellowish.

Head (Fig. 1) weakly oblong, 1.03-1.05 times as long as broad, broadest across eyes; postero-lateral outline between eyes and posterior constriction very weakly convex in dorsal view; median dorsal portion impressed; median and anterior dorsal portions extensively without punctation and glossy, with nearly obsolete microsculpture; posterior and postero-lateral dorsal portions with shallow microsculpture and sparse setiferous punctures (Fig. 20). Eyes strongly convex, slightly more than half as long as distance from posterior margin of eye to posterior constriction. Antenna elongate, 3.3-3.4 mm long, and very slender (Fig. 2).

Pronotum (Fig. 1) approximately 1.35 times as long as broad and 1.06-1.09 times as broad as head; dorsal surface opaque due to very dense microgranules; midline with long and narrow furrow reaching neither anterior nor posterior margins; antero-lateral portions slightly elevated, each with four granules arranged in an oblique series and bearing stout black setae (Fig. 21); antero-lateral surface nearly vertical, without microsculpture and glossy.

Elytra (Fig. 1) 0.48-0.49 times as long as pronotum; punctation fine and moderately sparse; interstices without microsculpture, several times as broad as diameter of punctures. Hind wings present, but apparently of reduced length. Metatarsomere I as long as, or slightly longer than, the combined length of II and III.

Abdomen narrower than elytra; tergites III-IV with moderately deep, tergite V with very shallow anterior impressions; tergites III-VII with fine punctation only at and near posterior margins, otherwise impunctate; tergite VIII with granulose setiferous punctation in posterior third (male secondary sexual character?) (Fig. 3); microsculpture present and composed of short transverse meshes, but nearly obsolete and visible only at high magnification (at least 100 x); posterior margin of tergite VII with palisade fringe.

♂: posterior margin of tergite VIII strongly serrate, on either side of middle with 3-4 pronounced tooth-like projections, median pair of projections distinctly longer than lateral teeth (Fig. 4); sternite VIII with broadly and weakly convex posterior margin; median lobe of aedeagus 0.9 mm long; ventral process of distinctive shape; crista apicalis enormous, strongly projecting (Figs 22-23).

♀: unknown.

**Comparative notes:** From all its congeners, except *A. darenae* YAN & LI, 2015, *Amaurodera projecta* differs by the pronounced crista apicalis of the aedeagus and by the presence of a series of four setae in the antero-lateral portions of the pronotum. As can be inferred from these shared derived characters, as well as from the similarly shaped posterior margin of tergite VIII, *A. projecta* is closely allied to *A. darenae* (China: Guangxi), most likely its sister species, from which it is distinguished by larger size (no overlap; see measurements in YAN & LI 2015a), different coloration particularly of the legs (uniformly pale reddish-yellow in *A. darenae*), the different shape of the apex of the ventral process of the aedeagus both in lateral and in ventral view, the more oblique crista apicalis (nearly parallel to ventral process and of slightly different shape in *A. darenae*), as well as the more massive apical and more slender basal internal structures of the aedeagus. For illustrations of *A. darenae* see YAN & LI (2015a), for those of other

geographically close congeners from China and Thailand see ASSING (2009), PACE (1986, 1992), and YAN & LI (2015a).

**Distribution and natural history:** The type specimens were collected in two close localities 7 km to the northwest of Sa Pa, North Vietnam, by sifting debris and leaf litter in a field margin and in a secondary deciduous forest at altitudes of 1810 and 1850 m.

***Drusilla zyrasoides* DVOŘÁK, 1988 (Figs 41-50)**

*Drusilla zyrasoides* DVORAK, 1988: 4 f.

**Type material examined:** Holotype ♂: "Vietnam, Tam Dao, 4.-11.VI.1985, Vinh phu prov., Jan Víša lgt. / Holotypus / ex coll. M. Dvořák, National Museum Prague, Czech Republic / *Drusilla zyrasoides* sp. n., det. M. Dvořák .86" (NMP). Paratypes: 3♂♂, 3♀♀: same data as holotype (NMP).

**Material examined:** Vietnam: 1♂, 3♀♀ Vinh Phu province, Tam Dao, 20.-28.VI.1990, leg. Dvořák (NMP, cAss).

**Comment:** The original description is based on a male holotype, a female allotype, and seven paratypes (five males and two females) from "Vietnam, Tam Dao, Vinh phu Provinz" (DVOŘÁK 1988). This species is characterized by a pronounced sexual dimorphism of the pronotum and of the abdominal segment VIII, as well as by the primary sexual characters. The external and sexual characters are illustrated in Figs 41-50.

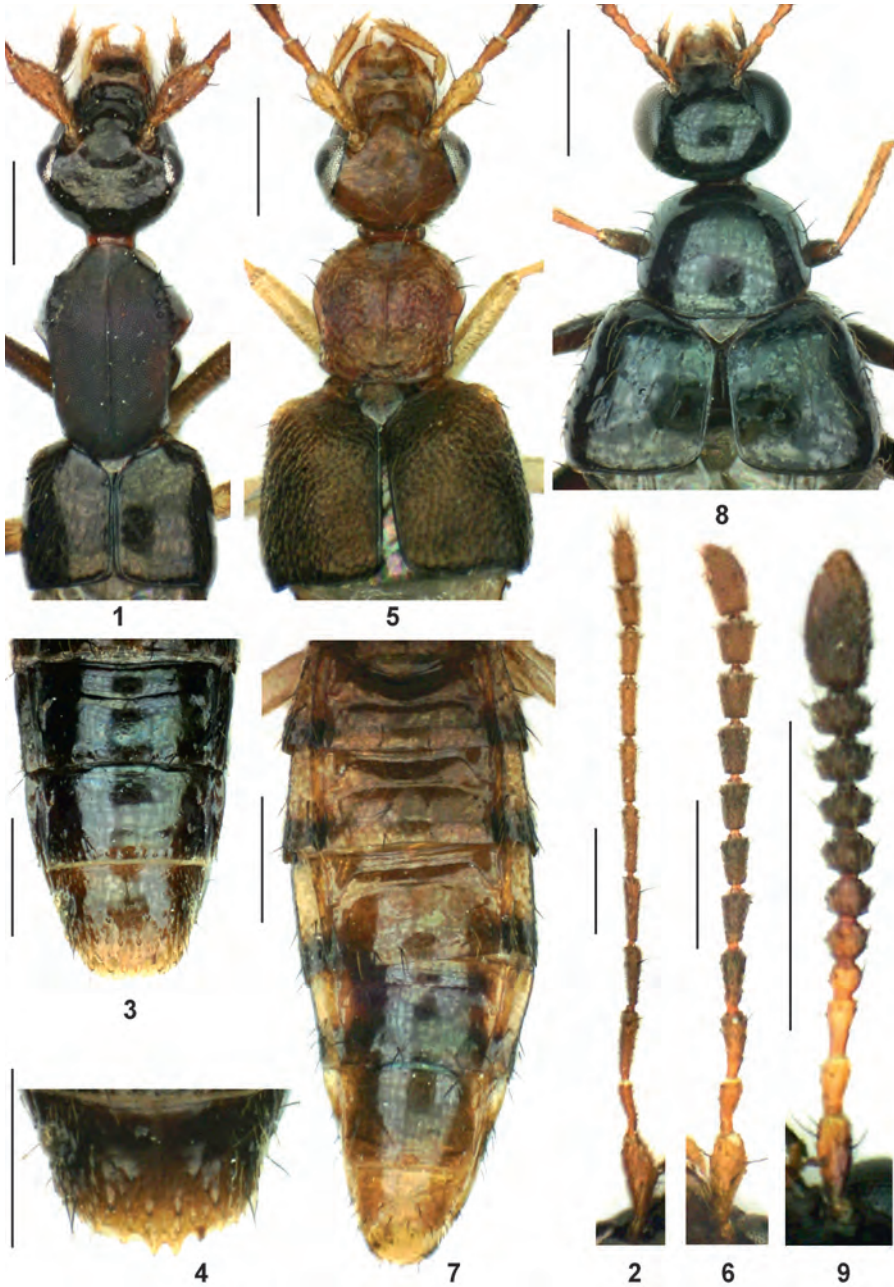
***Drusilla perforans* nov.sp. (Figs 5-7, 24-26, 60)**

**Type material:** Holotype ♂: "N-Vietnam - 10 km NW Sa Pa, 22°22'26"N, 103°45'27"E, 1850 m, stream valley, 8.VIII.2013, V. Assing [9+2] / Holotypus ♂ *Drusilla perforans* sp. n., det. V. Assing 2015" (cAss). Paratypes: 2♂♂, 2♀♀: same data as holotype (cAss).

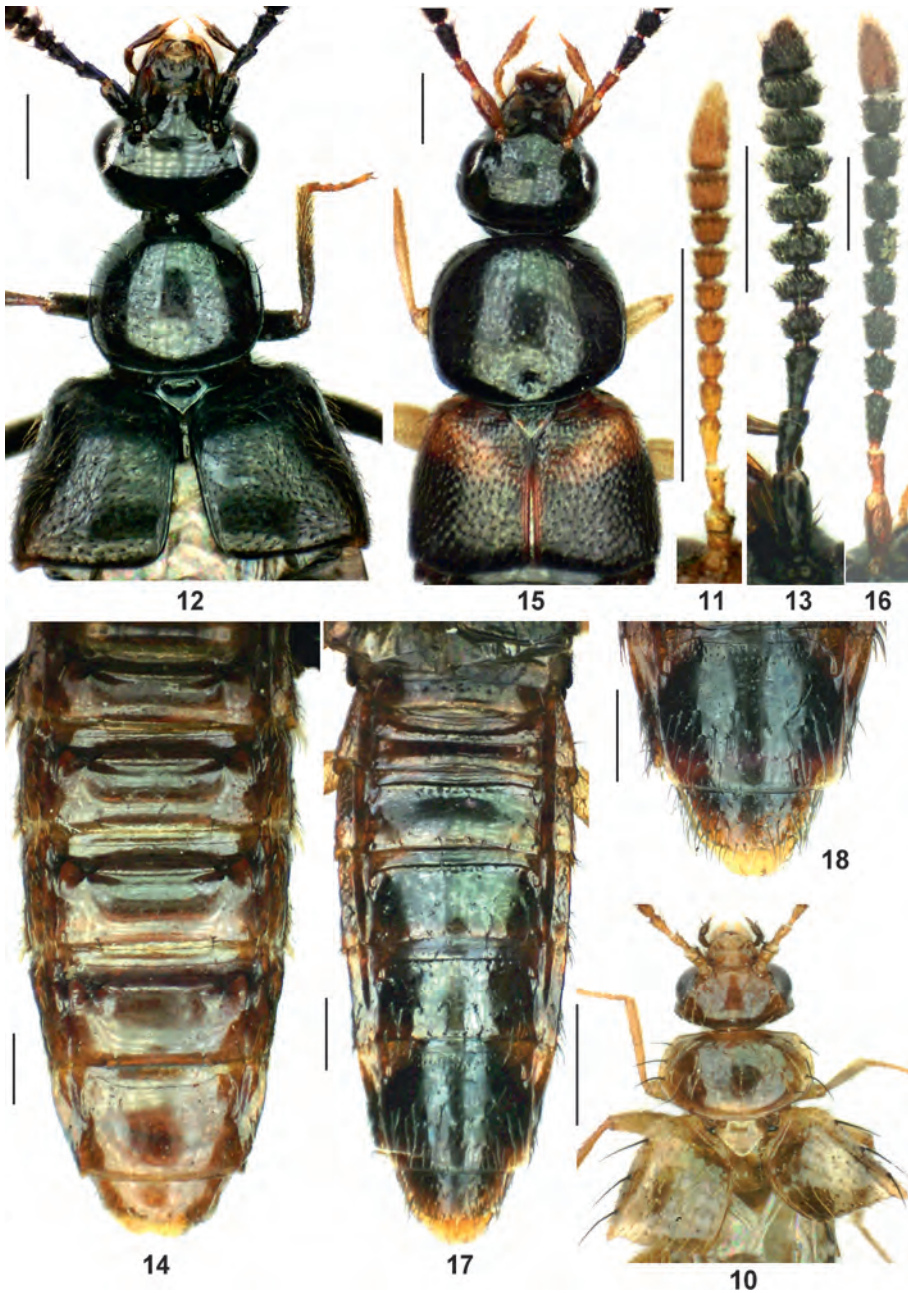
**Etymology:** The specific epithet is the present participle of the Latin verb perforare (to pierce) and alludes to the claw-shaped internal structures of the aedeagus.

**Description:** Body length 4.5-5.1 mm; length of forebody 2.1-2.2 mm. Coloration: head and pronotum reddish (Fig. 5); elytra brown to dark-brown (Fig. 5); abdomen (Fig. 7): paratergites III-VI yellowish in anterior half and blackish in posterior half; tergites III-IV reddish to yellowish-brown; tergite V of similar coloration as tergites III-IV or somewhat darker in posterior half; tergite VI dark-brown, except for the diffusely yellowish lateral margins; tergite VII dark-brown with broadly yellowish to reddish posterior margin; segments VIII-X dark-yellowish; legs pale-yellowish, with the apical third to two-fifths of the metafemora broadly infuscate; antennae (Fig. 6) dark-brown with antennomeres I-II and the base of III yellowish and the apical 1-3 antennomeres reddish; maxillary palpi yellowish.

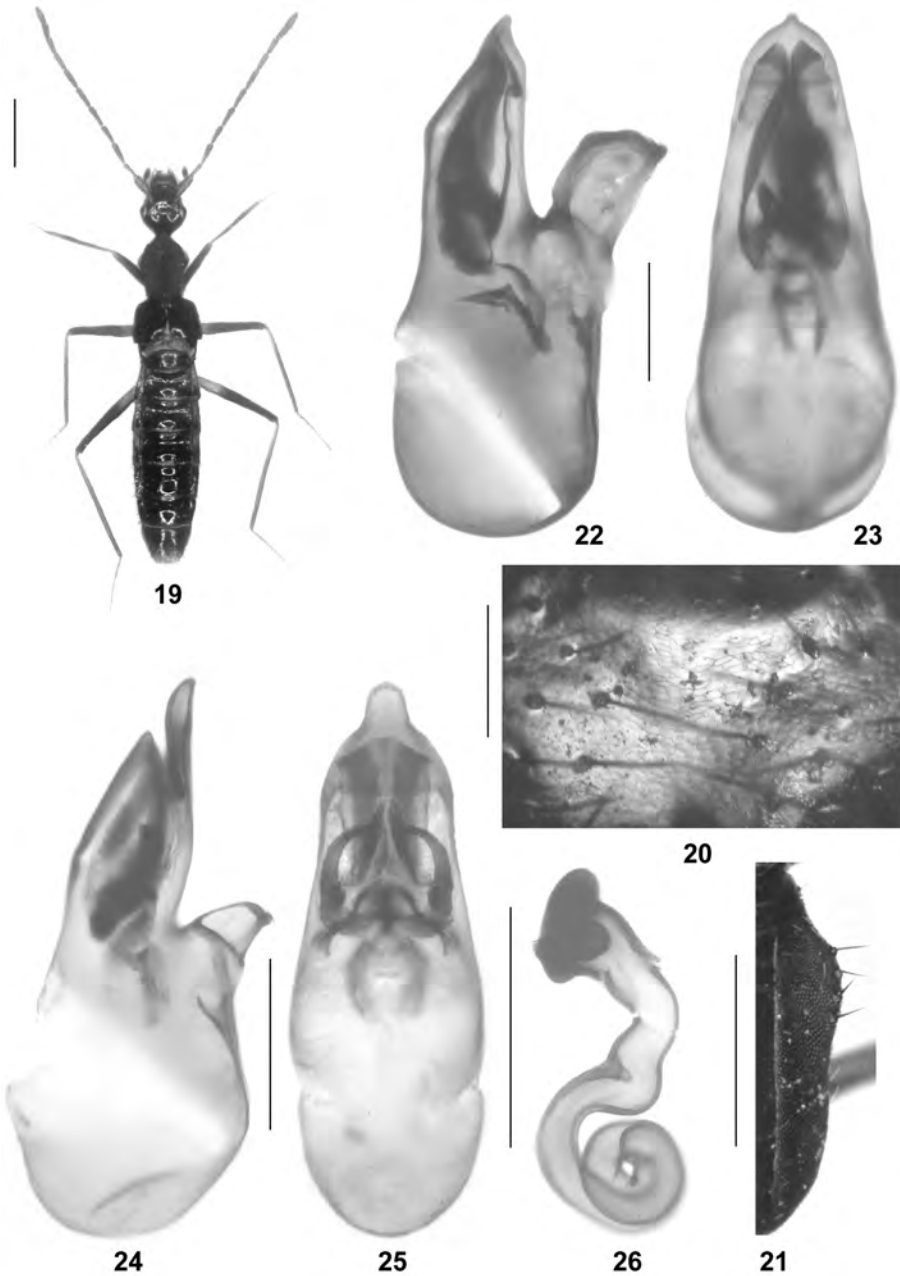
Head (Fig. 5) weakly oblong, approximately 1.1 times as long as broad, broadest across eyes; postero-lateral outline between eyes and posterior constriction very weakly convex in dorsal view; dorsal surface with sparse and extremely fine punctation. Eyes large and strongly convex, slightly longer than distance from posterior margin of eye to posterior constriction. Antenna 2.1-2.3 mm long and shaped as in Fig. 6.



**Figs 1-9:** *Amaurodera projecta* nov.sp. (1-4), *Drusilla perforans* nov.sp. (5-7), and *Orphnebius fansipanicus* nov.sp. (8-9): forebody (1, 5, 8); antenna (2, 6, 9); posterior portion of abdomen (3); tergite VIII (4); abdomen (6). Scale bars: 0.5 mm.

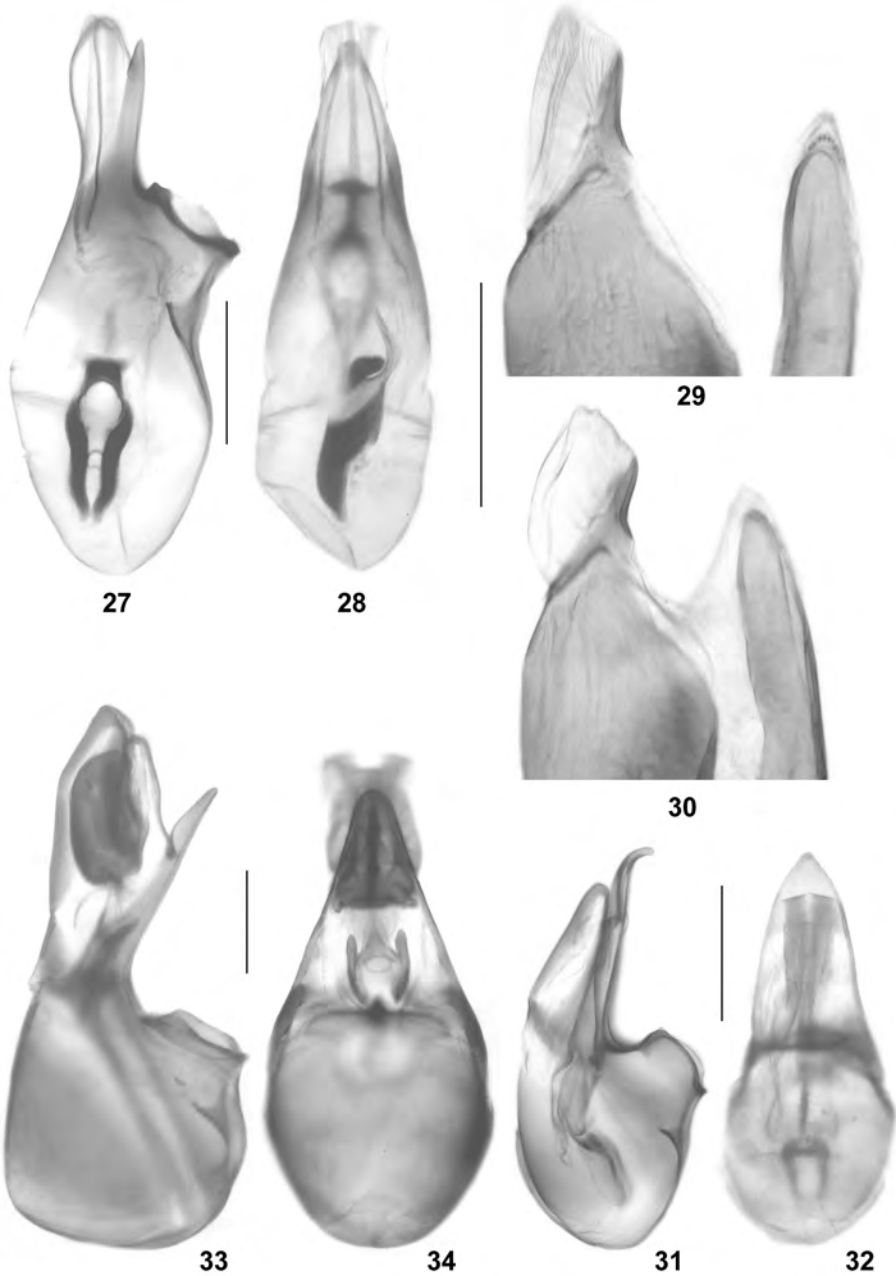


**Figs 10-19:** *Peltodonia atripalpis* nov.sp. (10-11), *Tetrabothrus bicolor* CAMERON (12-14), and *Zyras fansipanicus* nov.sp. (15-18): forebody (10, 12, 15); antenna (11, 13, 16); abdomen (14, 17); abdominal segments VII-VIII (18). Scale bars: 0.5 mm.

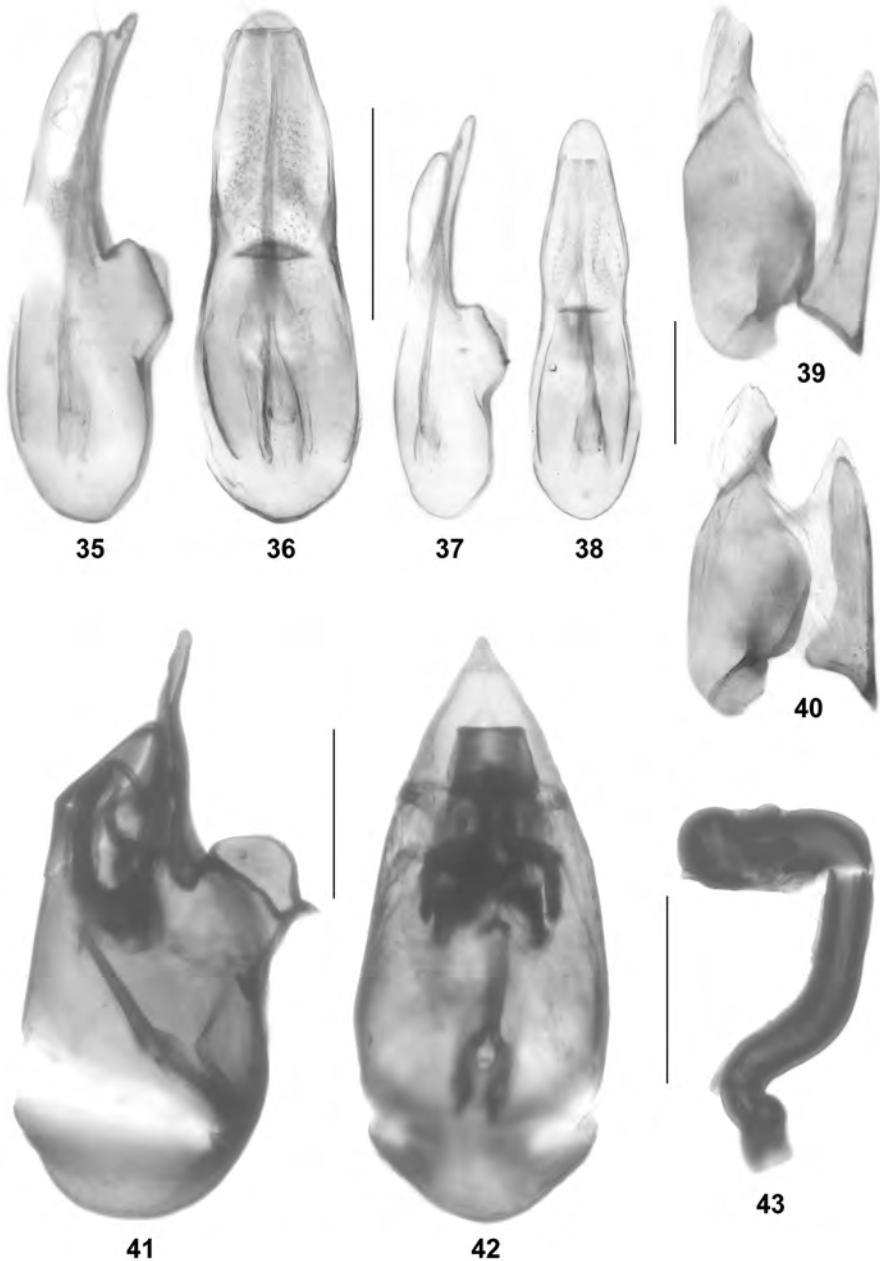


**Figs 19-26:** *Amaurodera projecta* nov.sp. (19-23) and *Drusilla perforans* nov.sp. (24-26): habitus (19); postero-median dorsal portion of head (20); right half of pronotum in latero-dorsal view (21); median lobe of aedeagus in lateral and in ventral view (22-25); spermatheca (26). Scale bars: 19: 1.0 mm; 21: 0.5 mm; 22-26: 0.2 mm; 20: 0.1 mm.

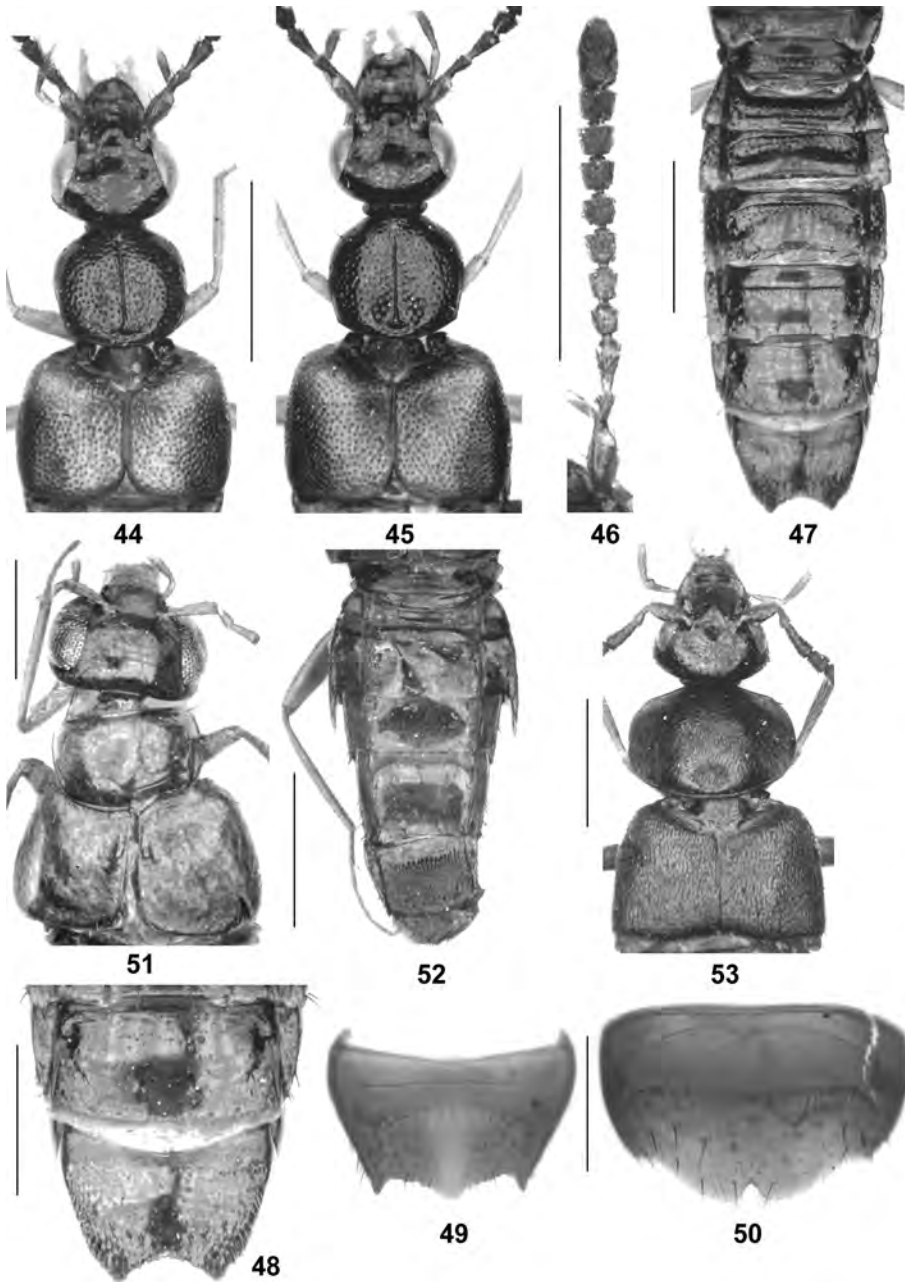




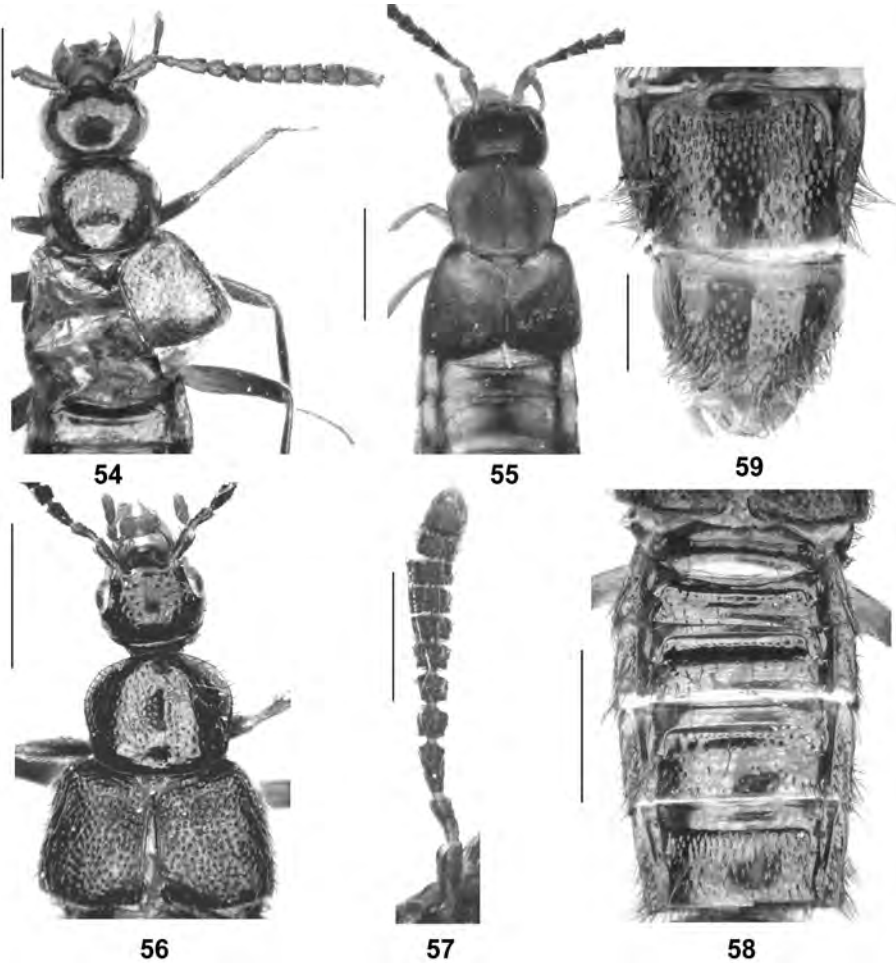
**Figs 27-34:** *Orphnebius fansipanicus* nov.sp. (27-29), *O. dishamatus* ASSING (30), *Tetrabothrus bicolor* CAMERON (31-32), and *Zyras fansipanicus* nov.sp. (33-34): aedeagus in lateral and in ventral view (27-28, 31-34); apical portion of paramere (29-30). Scale bars: 0.2 mm.



**Figs 35-43:** *Peltonia chinensis* (PACE) from Zhejiang (35-36), *Peltonia atripalpis* nov.sp. (37-38), *Orphnebius fansipanicus* nov.sp. (39), *O. dishamatus* ASSING (40), and *Drusilla zyrasoides* DVORAK (41-43): aedeagus in lateral and in ventral view (35-38, 41-42); paramere (39-40); spermatheca (43). Scale bars: 0.2 mm.



**Figs 44-53:** *Drusilla zyrasoides* DVORAK (44-50), *Orphnebius willersi* PACE, holotype (51-52), and *Zyras trapeziceps* DVORAK, holotype (53): male forebody (44, 51); female forebody (45, 53); antenna (46); male abdomen (47, 52); male tergites VII-VIII (48); female tergite VIII (49); female sternite VIII (50). Scale bars: 44-47, 52-53: 1.0 mm; 48-51: 0.5 mm.



**Figs 54-59:** *Zyras laocaiensis* PACE, holotype (**54**), *Z. pokarzhevskii* DVOŘAK, holotype (**55**), and *Z. funestus* (DVOŘAK), paratype (**56-59**): forebody (**54-56**); antenna (**57**); abdominal segments III-VI (**58**); abdominal segments VII-VIII (**59**). Scale bars: 54-56, 58: 1.0 mm; 57, 59: 0.5 mm.

Pronotum (Fig. 5) approximately 1.02 times as broad as long and 1.01-1.04 times as broad as head, broadest anteriorly; lateral margins distinctly sinuate in dorsal view; posterior angles obtusely marked; median portion impressed; midline with distinct median furrow reaching neither anterior nor posterior margins; punctation dense, rather coarse, and sexually dimorphic.

Elytra (Fig. 5) approximately as long as pronotum; punctation very dense, with the interstices reduced to narrow ridges, and sometimes weakly defined or even partly confluent. Hind wings fully developed. Metatarsomere I of very variable length, relatively short and slightly longer than II (much shorter than the combined length of II and III) to long and approximately as long as the combined length of II and III.



**Fig. 60:** Type locality of *Drusilla perforans* nov.sp. Photo: Paul Wunderle.

Abdomen (Fig. 7): tergites III-V with deep, tergite VI with very shallow anterior impressions; tergites III-VI with a baso-lateral puncture on either side; tergites III-IV with a median pair of punctures; tergites III-VII otherwise impunctate, except for few setiferous punctures near posterior margins; posterior margin of tergite VII with palisade fringe.

♂: pronotum with more pronounced median impression and with somewhat granulose punctation; posterior margin of tergite VIII truncate in the middle; sternite VIII somewhat longer than tergite VIII and with convex posterior margin; median lobe of aedeagus (Figs 24-25) 0.66-0.69 mm long and of distinctive shape; internal sac with a pair of claw-shaped sclerotized structures (ventral view).

♀: pronotum with less pronounced median impression and with non-granulose punctation; posterior margin of tergite VIII indistinctly truncate in the middle; posterior margin of sternite VIII weakly convex; spermatheca of distinctive shape (Fig. 26).

**Comparative notes:** *Drusilla perforans* differs from all other *Drusilla* species by the morphology of the aedeagus and the shape of the spermatheca, as well as

by the coloration. It is additionally distinguished from *D. zyrasoides* DVOŘÁK, 1988, the only other species of the genus previously recorded from Vietnam, by different coloration (*D. zyrasoides*: head, pronotum, and abdomen blackish; elytra distinctly bicoloured, dark-yellowish with the postero-lateral portions blackish), the absence of a sexual dimorphism of the head, the oblong head, and numerous other characters (see Figs 41-50). For illustrations of other geographically close *Drusilla* species recorded from China, Thailand, and Laos see ASSING (in press a), MARUYAMA (2004a, 2004b), PACE (1986, 1992, 1993, 1998, 2000, 2003, 2004a, 2012a, 2012b).

**Distribution and natural history:** The type specimens were sifted and roots from moist leaf litter in a steep stream valley with deciduous trees at an altitude of 1850 m (Fig. 60), approximately 10 km to the northwest of Sa Pa, North Vietnam. An association with ants or termites was not observed.

***Orphnebius fansipanicus* nov.sp. (Figs 8-9, 27-29, 39)**

**Type material:** Holotype ♂: "N-Vietnam - pass 8 km NW Sa Pa, 22°21'13"N, 103°46'01"E, 2030 m, forest margin, 10.VIII.2013, V.Assing [10a+2] / Holotypus ♂ *Orphnebius fansipanicus* sp. n., det. V. Assing 2015" (cAss).

**Etymology:** The specific epithet is an adjective derived from Fansipan, the highest peak of Vietnam, near which the type locality is situated.

**Description:** Body length 3.6 mm; length of forebody 1.6 mm. Coloration: forebody black; abdomen dark-reddish; legs with dark-brown femora and with reddish tibiae and tarsi; antennae with antennomeres I-IV reddish, V brown, and VI-XI blackish-brown; maxillary palpi dark-brown with pale-yellowish terminal palpomere.

Head (Fig. 8) 1.4 times as broad as long; dorsal surface with few scattered punctures and without microsculpture. Eyes large and bulging, more than twice as long as distance from posterior margin of eye to posterior constriction. Antenna 1.1 mm long, nearly symmetric, shaped as in Fig. 9.

Pronotum (Fig. 8) approximately 1.2 times as broad as long and 1.7 times as broad as head; disc with very few scattered setiferous punctures, nearly impunctate; lateral margins each with four long black setae, one at anterior angle, one a short distance (about half the length of seta) behind anterior angle, one just behind middle, and one near posterior angle.

Elytra (Fig. 8) approximately 0.85 times as long as pronotum; punctuation fine and sparse; pubescence long, pale, and depressed to suberect; microsculpture absent. Hind wings fully developed. Metatarsomere I nearly as long as the combined length of II and III.

Abdomen: tergites III-VI each with a lateral puncture and few punctures at posterior margins, otherwise impunctate; tergite VII with extensive oblong puncture-like impressions in anterior two-thirds, posteriorly with a transverse row of setiferous punctures; posterior margin of tergite VII with pronounced palisade fringe.

♂: median lobe of aedeagus 0.75 mm long, with rather short and straight (lateral view) ventral process (Figs 27-28); paramere (Figs 29, 39) much shorter than median lobe, paramerite without conspicuous modifications, at apical margin of sclerotized portion with four setae, condylite stout, much shorter than paramerite, and with short velum.

♀: unknown.

**Comparative notes:** Based on the modifications of the abdominal segments

IX and X (with long and dense dark setae) and on the morphology of the aedeagus (shapes of median lobe and of parameres), *Orphnebius fansipanicus* belongs to the *O. hauseri* group (see ASSING 2006a, 2006b), whose distribution ranges from the western Himalaya southeastwards to China and Taiwan (ASSING 2015a). Except for *O. thai* PACE, 2000 (Thailand), whose aedeagal shape suggests that it may belong to this group, too, all other species previously described from Thailand and Laos belong to other species groups. Among the species of the *O. hauseri* group, *O. fansipanicus* is most similar to *O. bihamatus* ASSING, 2015 (East Yunnan), from which it differs by the proportions of head and pronotum (*O. dishamatus*: pronotum 1.35 times as broad as long and 1.25 times as broad as head), the coloration (*O. dishamatus*: abdomen pale-reddish; legs with brown femora and reddish-brown tibiae), the slightly longer antennomere XI, the chaetotaxy of the pronotum (*O. dishamatus*: the two antero-lateral long setae separated by a greater distance), the shape of the median lobe of the aedeagus (*O. dishamatus*: ventral process broader in ventral view; crista apicalis of different orientation and slightly different shape), and by the shape of the paramere (*O. bihamatus*: apex of paramere of slightly different shape; condylite longer in relation to paramerite). For illustrations of the *Orphnebius* species recorded from Thailand and China see ASSING (2006a, 2006b, 2009, 2015a) and PACE (1986, 1992, 2000, 2004a), for figures of *O. bihamatus* and a key to the species known from China see Figs 30, 40 and ASSING (2015a), respectively.

**Distribution and natural history:** The type locality is situated at a pass 8 km to the northwest of Sa Pa, North Vietnam, at an altitude of 2030 m. The holotype was sifted from litter and roots under bushes near the margin of a secondary deciduous forest, together with *Tetrabothrus bicolor*. For a habitat photo see figure 27 in ASSING (2015c).

### ***Orphnebius* sp.**

**Material examined:** Vietnam: 1 ♀, pass 8 km WNW Sa Pa, 22°21'N, 103°46'E, 2010 m, secondary deciduous forest with bamboo and forest margin with bushes, litter, moss, and roots sifted, 14.VIII.2013, leg. Assing (cAss).

**Comment:** Based on external characters and the shape of the spermatheca, the above female most likely represents an undescribed species of the *O. hauseri* group sensu lato.

### ***Orphnebius willersi* PACE, 2001 (Figs 51-52)**

*Orphnebius willersi* PACE, 2001: 196.

**Type material examined:** Holotype ♂: "Vietnam, N, 100 km SSW Hanoi, 40 km SW Than Hoa, Ben En National Park, 50 m, 23.-29.VII.1997, leg. A. Napolov / Holotypus *Orphnebius willersi* mihi, det. R. Pace 2001 / *Orphnebius willersi* mihi, det. R. Pace 2001" (NME).

**Comment:** The original description is based on a unique holotype (PACE 2001). The specimen is in very poor condition (antennomeres III-XI of left antenna and IV-XI of right antenna, right protarsus, left mesotarsus, right mid-leg, and right hind-leg missing). It is illustrated in Figs 51-52.

### ***Peltodonia atripalpis* nov.sp. (Figs 10-11, 37-38, 61)**

**Type material:** Holotype ♂: "N-Vietnam - 6 km NW Sa Pa, 22°21'39"N, 103°47'19"E, 1810 m, pasture margin, 7.VIII.2013, Wunderle [8+2] / Holotypus ♂ *Peltodonia atripalpis* sp.n., det. V. Assing 2015" (cAss).

**E t y m o l o g y :** The specific epithet (Latin, adjective: with black palpi) alludes to the dark coloration of the maxillary palpi, one of the characters distinguishing this species from the similar *P. chinensis* (PACE, 1998).

**D e s c r i p t i o n :** Body length 3.1 mm; length of forebody 1.3 mm. Coloration: head pale-brown with yellowish labrum; pronotum pale-brown with yellowish margins; elytra yellowish-brown; abdomen pale-reddish, with the posterior portion of tergite VII and the anterior portion of tergite VIII darker; legs yellow; antennae pale-reddish; maxillary palpi blackish-brown.

Head (Fig. 10) strongly wedge-shaped and strongly transverse; posterior margin sharply angled in lateral view, its outline nearly straight in dorsal view. Eyes large and bulging, nearly four times as long as postocular region. Antenna 1.0 mm long and shaped as in Fig. 11.

Pronotum (Fig. 10) strongly transverse, 1.75 times as broad as long and 1.3 times as broad as head; posterior margin broadly convex; posterior angles not marked; disc without microsculpture and with sparse punctures bearing moderately long pale setae; lateral margins each with three very long and stout black setae, posterior margin laterally with a somewhat shorter black seta on either side.

Elytra (Fig. 10) approximately as long as pronotum; punctation and pubescence similar to those of pronotum; laterally with three conspicuously long (even longer than lateral setae of pronotum) and stout black setae. Hind wings fully developed. Metatarsomere I as long as the combined length of II and III.

Abdomen: sternites III-VII posteriorly with a row of very long and stout black setae; tergites III-VI postero-laterally with two long and stout black setae on either side; tergite VII with pronounced longitudinal sculpture (gland openings?) in posterior third; tergite VIII with dense and coarse longitudinal rugae in anterior half and with oval impressions posteriorly, in posterior fourth with two transverse series each composed of six punctures bearing fine black setae, posterior margin with pronounced obtuse projection in the middle; posterior margin of tergite VII with pronounced palisade fringe.

♂: posterior margin of sternite VIII moderately convex; median lobe of aedeagus 0.38 mm long, slender, weakly sclerotized, and with a long and straight flagellum in internal sac (Figs 37-38).

♀: unknown.

**C o m p a r a t i v e n o t e s :** According to HLAVÁČ et al. (2011), *Peltodonia* was represented by seven species, one from the West Palaearctic, four from Borneo, one from Peninsular Malaysia, and one from China. Eight additional species from Borneo were described as *Chaetosogonocephus* PACE, 1987 (a junior synonym of *Peltodonia* since 2009) by PACE (2014, 2015).

In external characters, the new species is similar to *P. chinensis* (PACE, 1998), whose original description is based on a unique female from the Chinese province Zhejiang (PACE 1998), from where the species was again recorded by ASSING (2009). *Peltodonia atricalpis* is distinguished from *P. chinensis* by slightly smaller body size, shorter antennae, a less transverse pronotum, dark maxillary palpi, and particularly by the much smaller and differently shaped median lobe of the aedeagus. For comparison, the male median lobe of the aedeagus of *P. chinensis* is illustrated in Figs 35-36.





**Fig. 61:** Type locality of *Peltodonia atripalpis* nov.sp. Photo: Paul Wunderle.

**Distribution and natural history:** The type locality is situated 6 km to the northwest of Sa Pa, North Vietnam, at an altitude of 1810 m. The holotype was sifted from litter and roots under bushes and small trees at the margin of a pasture (Fig. 61).

***Tetrabothrus bicolor* CAMERON, 1939 (Figs 12-14, 31-32)**

*Tetrabothrus bicolor* CAMERON, 1939: 375.

**Type material examined:** Lectotype ♂, present designation: "64504 / Birmah, Ruby M.es / Doherty / Fry Coll., 1905.100. / *Tetrabothrus bicolor* Cam Type / Type / Lectotypus ♂ *Tetrabothrus bicolor* Cameron, desig. V. Assing 2015 / *Tetrabothrus bicolor* Cameron, det. V. Assing 2015" (BMNH). Paralectotype ♀: "Birmah, Ruby M.es / Doherty / Fry Coll., 1905.100. / *Tetrabothrus bicolor* Cam Cotype / Syntype / M. Cameron Bequest., B.M. 1955-147 / *Tetrabothrus bicolor* Cameron, det. V. Assing 2015" (BMNH).

**Material examined:** Vietnam: 1♂, 5♀, pass 8 km NW Sa Pa, 22°21'N, 103°46'E, 2030 m, margin of secondary deciduous forest with bushes, bamboo, and herbs, litter, roots, and moss sifted, 9.VIII.2013, leg. Assing (cAss); 1♂, 1♀, same data, but 10.VIII.2013 (cAss).

**Comment:** The original description is based on an unspecified number of syntypes from "Burma: Ruby Mines" (CAMERON 1939). Two syntypes, a male and a female, were located in the collections of the BMNH. The male is designated as the lectotype. The additional material listed above represents the first records since the original description. The external and male sexual characters are illustrated in Figs 12-14, 31-32.

***Tetrabothrus japonicus* NAKANE, 1991**

*Tetrabothrus vietnamiculus* PACE, 2013: 375; **nov.syn.**

Type material examined: Holotype ♂: "Viet Nam N (Ha Nang) 160 km NNW Ha Noi, 50-200 m, NE env. of Na Hang, 1/14.VI-96, J. Roma & A. Napalov / Ex R. Pace Collection / *Tetrabothrus vietnamiculus* n. sp., det. R. Pace 2012 / Holotypus *Tetrabothrus vietnamiculus* mihi, det. R. Pace 2012 / *Tetrabothrus japonicus* Nakane, det. V. Assing 2015" (NME).

Additional material examined: Vietnam: 1♂, Cao Bang province, 12 km NE Cao Bang, 22°46'N, 106°19'E, 600-700 m, 15.-16.V.2010, leg. Dembický (NHMB).

Comment: The original description of *Tetrabothrus vietnamiculus* is based on a unique male from Vietnam (PACE 2013). The external and male sexual characters of the holotype (see also the figures in the original description) are identical to those illustrated for *T. japonicus* by YAN & LI (2015b) for *T. japonicus*. According to MARUYAMA (e-mail, 24.IX.2015), the interpretation of *T. japonicus* in YAN & LI (2015b) is correct. Consequently, *T. vietnamiculus* is placed in synonymy with *T. japonicus*.

***Zyras (Glossacantha) pokarzhevskii* DVOŘÁK, 1996 (Fig. 55)**

*Zyras (Glossacantha) pokarzhevskii* DVOŘÁK, 1996: 7 f.

Type material examined: Holotype ♀: "Vietnam, 30.XII.1980, Taj Nguen, Bud Lioj, 65 km N Ankche, A. Pokarževskij lgt. / Holotypus / ex coll. M. Dvořák, National Museum Prague, Czech Republic / *Zyras pokarzhevskii* sp. n., det. M. Dvořák .88" (NMP).

Comment: The original description is based on a unique female holotype. Its forebody is illustrated in Fig. 55. The subgeneric assignment was confirmed by MARUYAMA (e-mail 16 October, 2015) based on a photo of the holotype.

***Zyras (Glossacantha) laocaiensis* PACE, 2008, nov.comb. (Fig. 54)**

*Zyras (Pella) laocaiensis* PACE, 2008: 11 f.

*Pella laocaiensis*: HLAVÁČ, NEWTON & MARUYAMA (2011).

Type material examined: Holotype ♂ [in poor condition]: "Vietnam, Lao Cai, ca. 40 km SE Sapa, 1400 m, 15-16.II.05, G. de Rougemont leg. / Holotypus *Zyras laocaiensis* n. sp., det. R. Pace 2005 / *Zyras laocaiensis* n. sp., det. R. Pace 2005" (cRou).

Comment: PACE (2008) assigned *Z. laocaiensis* to *Pella*, which he regarded as a subgenus of *Zyras*, although *Pella* had been attributed generic status in a revision by MARUYAMA (2006). The species was listed as *Pella laocaiensis* by HLAVÁČ et al. (2011). An examination of the holotype revealed that it does not belong to *Pella*, but to *Zyras*. According to MARUYAMA (e-mail 7 October, 2015), it belongs to the subgenus *Glossacantha* GEMMINGER & HAROLD, 1868 sensu lato. The forebody of the holotype is illustrated in Fig. 54.

***Zyras (Zyras) malaisei* SCHEERPELTZ, 1965**

Material examined: Vietnam: 1♀, pass 8 km NW Sa Pa, 22°21'N, 103°46'E, 2030 m, margin of secondary deciduous forest with bushes, bamboo, and herbs, litter, roots, and moss sifted, 9.VIII.2013, leg. Assing (cAss).

Comment: This species was previously known only from the type locality in the northeast of Burma, close to the border with the Chinese province Yunnan. The above female represents the first record of *Z. malaisei* from Vietnam.

***Zyras (Zyras) neoparageminus* HLAVÁČ, NEWTON & MARUYAMA, 2011**

*Zyras (Zyras) parageminus* PACE, 2010: 319 ff.; preoccupied.

*Zyras (Zyras) neoparageminus* HLAVAC, NEWTON & MARUYAMA, 2011: 7; replacement name.

*Zyras (Zyras) subgeminus* PACE, 2012a: 339; replacement name; **nov.syn.**

**C o m m e n t :** *Zyras parageminus* PACE, 2010, which is based on a unique male from Sumatra, is a junior primary homonym of *Z. parageminus* PACE, 1988. The name was replaced with the nomen novum *Z. neoparageminus* by HLAVÁČ et al. (2011). Recording this species from Vietnam based on six females and evidently unaware of this replacement, PACE (2012a) proposed "*Z. subgeminus* Pace, 2010 nom. n." [sic] as another nomen novum for *Z. parageminus* PACE, 2010. *Zyras subgeminus* PACE, 2012 is consequently an objective junior synonym of *Z. neoparageminus*. The record from Vietnam most likely refers to *Z. hongkongensis* PACE, 1999.

***Zyras (Zyras) hongkongensis* PACE, 2012**

**C o m m e n t :** This species is widespread in the southern East Palaearctic and the Oriental regions. It is present also in Vietnam; primary records will be listed in a study of the Chinese fauna of *Zyras sensu strictu* (ASSING in press b).

***Zyras (Zyras) trapeziceps* DVOŘÁK, 1996 (Fig. 53)**

*Zyras (Zyras) trapeziceps* DVORAK, 1996: 5 f.

**T y p e m a t e r i a l e x a m i n e d :** Holotype ♀ [with worker of *Leptogenys* sp. attached to the same pin]: "Vietnam sept. 1990, Sa-Pa, 11-19.VI., (Hoang Lien Son), Mir. Dvořák legit. / Holotypus / *Zyras trapeziceps* sp. n., det. M. Dvořák .90" (NMP).

**C o m m e n t :** The original description is based on a unique female holotype; its forebody is illustrated in Fig. 53. According to MARUYAMA (e-mail 7 October, 2015), this species is correctly placed in *Zyras sensu strictu*.

***Zyras (Zyras) funestus* (DVOŘÁK, 1996), nov.comb. (Figs 56-59)**

*Orphnebius (Mesocephalobius) funestus* DVOŘÁK, 1996: 1 f.

**T y p e m a t e r i a l e x a m i n e d :** Holotype ♀: "Vietnam, 8.1.1981, Taj Nguen, Bud Lioj, 65 km N Ankche, A. Pokarževskij lgt. / Holotypus / *Orphnebius funestus* sp. n., det. M. Dvořák .88 / ex coll. M. Dvořák, National Museum Prague, Czech Republic / *Zyras funestus* (Dvořák), det. V. Assing 2015" (NMP). Paratype ♀: same data as holotype, but "Allotypus" (NMP).

**C o m m e n t :** According to the original description, the type material is based on a male holotype, a female allotype, and a male paratype (DVOŘÁK 1996). The holotype and the allotype were located in the collections of the NMP. An examination of these specimens revealed that both of them are females and that they belong to *Zyras sensu strictu*, clearly not to *Orphnebius* (Figs 56-59). The species is closely allied to *Zyras hirtus* (KRAATZ, 1859), *Z. setosivestis* SCHEERPELTZ, 1965, and related species.

***Zyras (Zyras) quasar* DVOŘÁK, 1996**

*Zyras (Pella) quasar* DVOŘÁK, 1996: 6 f.

*Zyras (Zyras) quasar*: HLAVAC et al. (2011).

**T y p e m a t e r i a l e x a m i n e d :** Holotype ♂ [dissected prior to present study]: "Vietnam, 20-30.12.1980, Taj Nguen, Bud Lioj, 65 km N Ankche, A. Pokarževskij legit. / Holotypus / *Zyras quasar* sp. n., det. M. Dvořák .90 / ex coll. M. Dvořák, National Museum Prague, Czech Republic " (NMP).

**C o m m e n t :** According to the original description, the unique holotype is a female (DVOŘÁK 1996). An examination of the specimen, however, revealed that it is a male.

The species has been reported also from Burma, Thailand, and Malaysia, but, owing to frequent misidentifications of *Zyras sensu strictu* species, all the records from countries other than Vietnam require confirmation.

***Zyras (Zyras) alboantennatus* PACE, 1986**

**M a t e r i a l e x a m i n e d :** Vietnam: 16 exs., Tuyen Quang province, Na Hang reserve [22°16-31'N, 105°22-29'E], 360 m, 6.-24.VI.1997, leg. Peck (NMP, cAss).

**C o m m e n t :** This recently described species was previously known only from Burma. It is dealt with in detail in a revision of *Zyras sensu strictu* from China (ASSING in press b).

***Zyras (Zyras) sichuanorum* PACE, 2012**

**M a t e r i a l e x a m i n e d :** Vietnam: 16 exs., Tuyen Quang province, Na Hang reserve [22°16-31'N, 105°22-29'E], 360 m, 6.-24.VI.1997, leg. Peck (NMP, cAss).

**C o m m e n t :** This recently described species was previously known only from Sichuan, China. It is dealt with in detail in a revision of *Zyras sensu strictu* from China (ASSING in press b).

***Zyras (Zyras) sp. 1***

**M a t e r i a l e x a m i n e d :** Vietnam: 1 ♀, 6 km NW Sa Pa, 22°22'N, 103°47'E, 1810 m, margin of pasture with bushes and small trees, litter and roots sifted, 7.VIII.2013, leg. Assing (cAss).

**C o m m e n t :** The above female probably represents an undescribed species closely allied to *Zyras setosivestis* SCHEERPELTZ, 1965, a species described and known only from Burma. It differs from *Z. funestus*, which belongs to the same species group, by distinctly larger size, darker coloration, much longer and more slender antennae, and by the distinctly finer and shallower punctuation of the forebody.

***Zyras (Zyras) sp. 2***

**M a t e r i a l e x a m i n e d :** Vietnam: 1 ♀, 10 km NW Sa Pa, 22°22'N, 103°45'E, 1850 m, moist stream valley with deciduous trees, litter and roots between rocks sifted, 8.VIII.2013, leg. Wunderle (cWun).

**C o m m e n t :** The above specimen is characterized by a completely black body. It is, however, not conspecific with any of the similarly coloured species recorded from China (ASSING in press b).

***Zyras (Zyras) fansipanicus* nov.sp. (Figs 15-18, 33-34, 62)**

**T y p e m a t e r i a l :** Holotype ♂: "N-Vietnam - 7 km NW Sa Pa, 22°22'47"N, 103°47'10"E, 1850 m, decid. forest, 31.VII.2013, V. Assing [5+2] / Holotypus ♂ *Zyras fansipanicus* sp. n., det. V. Assing 2015" (cAss). Paratype ♀: "N-Vietnam - pass 8 km NW Sa Pa, 22°21'10"N, 103°46'01"E, 2010 m, second. forest, 12.VIII. 2013, V. Assing [7b+2]" (cAss).

**E t y m o l o g y :** The specific epithet is an adjective derived from Fansipan, the highest peak of Vietnam, near which the type locality is situated.

**D e s c r i p t i o n :** Rather large species; body length 7.0-8.0 mm; length of forebody 3.4-3.7 mm. Coloration: head and pronotum blackish; elytra bicoloured, with the anterior third to two-fifths and the suture reddish-yellow and the posterior portion extensively

blackish; abdomen blackish, with the paratergites and the posterior margins of segments III-VI narrowly, those of segments VII and VIII more broadly reddish; legs and maxillary palpi yellowish; antennae dark-brown, with the basal 2-3 antennomeres pale-reddish and antennomere XI reddish to dark-reddish.

Head (Fig. 15) distinctly transverse, narrowly to broadly impunctate along middle; punctation in lateral dorsal portions moderately dense and rather fine. Eyes slightly longer than postocular region in dorsal view. Antenna (Fig. 16) rather massive and 2.7-2.9 mm long; antennomeres IV-VII as long as broad or weakly oblong, VIII-IX very weakly transverse, X much less than 1.5 times as broad as long, and XI approximately as long as the combined length of IX and X.



**Fig. 62:** Type locality of *Zyras fansipanicus* nov.sp. Photo: Paul Wunderle.

Pronotum (Fig. 15) rather large in relation to head, distinctly transverse, 1.14-1.15 times as broad as long, and approximately 1.36 times as broad as head; punctation fine to moderately fine and moderately dense, more or less equally distributed; interstices on average broader than diameter of punctures; midline narrowly impunctate; lateral margins each with two moderately long setae, one at anterior angles and one at anterior third.

Elytra (Fig. 15) 0.76-0.77 times as long as pronotum; punctation moderately dense and not very coarse, equally distributed. Hind wings fully developed. Metatarsomere I longer than the combined length of II-IV.

Abdomen (Fig. 17) approximately as broad as elytra, with rather shallow anterior impressions on tergites III-V; anterior impressions of tergites III-V with sparse and fine non-setiferous punctures; disc of tergite III with a lateral puncture on either side and with four punctures at posterior margin; tergite IV with a lateral marginal puncture on either side and with eight punctures at posterior margin; tergite V with a lateral puncture on either side, with a median pair of punctures, and with 10-12 punctures at posterior margin; tergite VI with a transverse band of non-setiferous punctures near anterior margin, with a lateral puncture on either side, with a transverse series of eight punctures in posterior portion, and with approximately twelve punctures at posterior margin; tergite VII (Fig. 18) with a transverse band of dense non-setiferous punctures anteriorly and with three partly somewhat irregular transverse series of setiferous punctures in posterior half; tergite VIII (Fig. 18) in posterior portion with punctation bearing long black setae; integument without microsculpture and glossy; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII truncate or weakly concave in the middle.

♂: sternite VIII somewhat longer than tergite VIII, its posterior margin convex; median lobe of aedeagus 0.95 mm long and shaped as in Figs 33-34; paramere of the usual condition, with moderately long apical lobe.

♀: posterior margin of sternite VIII weakly concave in the middle.

**Comparative notes:** The new species belongs to a very speciose group of species with a similar coloration pattern (ASSING in press b). In both external and the male sexual characters, it is most similar to *Z. gilvipalpis* ASSING, in press from East Yunnan. It differs from that species particularly by the less dense and equally distributed punctation of the elytra and by the different shape of the ventral process of the aedeagus (more slender in lateral and in ventral view, and with a less acute apex in ventral view).

**Distribution and natural history:** The type specimens were collected in two localities at and near a pass to the northwest of Sa Pa, North Vietnam, at altitudes of 1850 and 2010 m. They were sifted from leaf litter and roots in secondary deciduous forests. The type locality is illustrated in Fig. 62. An association with ants was not observed.

### **Checklist of the Lomechusini recorded from Vietnam**

The genera and species are listed in alphabetical order. For those species that are currently assigned to a subgenus, this subgenus is indicated in parenthesis. Species whose records from Vietnam are most likely based on misidentification are listed in brackets.

**Footnotes:** 1) illustrations of sexual characters in original description inadequate or absent; 2) male sexual characters unknown; 3) (sub-)generic assignment doubtful; 4) for details on this synonymy see ASSING (in press b); 5) record most likely based on misidentification; 6) female-based record.

| Taxon  | Distribution  |
|--|---|
| Genus <i>Amaurodera</i> FAUVEL, 1905   |   |
| <i>projecta</i> nov.sp.  | Vietnam   |
| Genus <i>Drusilla</i> LEACH, 1819  |   |
| <i>perforans</i> nov.sp.   | Vietnam   |
| <i>zyrasoides</i> DVORAK, 1988 <sup>1)</sup>   | Vietnam   |
| Genus <i>Orphnebius</i> MOTSCHULSKY, 1858  |   |
| <i>fansipanicus</i> nov.sp.  | Vietnam   |
| <i>setiger</i> PACE, 1992 <sup>2)</sup>  | Thailand, Vietnam <sup>6)</sup>   |
| <i>willersi</i> PACE, 2001   | Vietnam   |
| Genus <i>Pedinopleurus</i> CAMERON, 1939   |   |
| <i>chapmani</i> CAMERON, 1939 <sup>1)</sup>  | Vietnam   |
| <i>notabilis</i> (SILVESTRI, 1946) <sup>1)</sup>   | Vietnam   |
| <i>setosicauda</i> DVORAK, 1996 <sup>1)</sup>  | Vietnam   |
| <i>tumorfrontalis</i> (PACE, 2001) <sup>2)</sup>   | Vietnam   |
| <i>vietnamicola</i> (PACE, 2004) <sup>2)</sup>   | Vietnam   |
| Genus <i>Peltodonia</i> BERNHAUER, 1936  |   |
| <i>atripalpis</i> nov.sp.  | Vietnam   |
| Genus <i>Tetrabothrus</i> BERNHAUER, 1915  |   |
| <i>bicolor</i> CAMERON, 1939   | Burma, Vietnam  |
| <i>japonicus</i> NAKANE, 1991<br>= <i>vietnamiculus</i> PACE, 2013; nov.syn.                       | Japan (Honshû, Shikoku, Kyûshû, Ryukyu Is.),<br>South Korea, China<br>(Anhui, Zhejiang, Fujian, Guizhou), Vietnam |
| Genus <i>Zyras</i> STEPHENS, 1833  |   |
| <i>alboantennatus</i> PACE, 1986 ( <i>Zyras</i> )  | Burma; Vietnam; China   |
| [ <i>condignus</i> LAST, 1969 ( <i>Zyras</i> ) <sup>1)</sup><br>= <i>distinctus</i> CAMERON, 1939] | N-India, Nepal,<br>[Taiwan] <sup>5)</sup> , [Vietnam] <sup>5)</sup>   |
| <i>fansipanicus</i> nov.sp. ( <i>Zyras</i> )   | Vietnam   |
| <i>funestus</i> (DVOŘÁK, 1996) ( <i>Zyras</i> ); nov.comb.   | Vietnam   |
| <i>hagiangensis</i> PACE, 2012 ( <i>Glossacantha</i> ) <sup>2)</sup>                               | Vietnam   |
| <i>hongkongensis</i> PACE, 1999 ( <i>Zyras</i> )<br>= <i>benenensis</i> PACE, 2001 <sup>4)</sup>   | China (Guangxi, Yunnan), Taiwan,<br>Hong Kong, Northeast India, Vietnam, Indonesia                                |
| <i>langsonensis</i> PACE, 2001 ( <i>Diaulaconia</i> ) <sup>2)</sup>                                | Vietnam   |
| <i>laocaiensis</i> PACE, 2008 ( <i>Glossacantha</i> ); nov.comb.                                   | Vietnam   |
| <i>malaisei</i> SCHEERPELTZ, 1965 ( <i>Zyras</i> )   | Burma, Vietnam  |
| [ <i>neoparageminus</i> HLAVÁČ, NEWTON & MARUYAMA, 2011 ( <i>Zyras</i> )                           | Indonesia (Sumatra), [Vietnam] <sup>5)</sup>  |

| Taxon   | Distribution   |
|---|--|
| = <i>parageminus</i> PACE, 2010<br>= <i>subgeminus</i> PACE, 2012; nov.syn.]                            |  |
| <i>pokarzhevskii</i> DVOŘÁK, 1996 ( <i>Glossacantha</i> ) <sup>1)2)</sup>                               | Vietnam  |
| <i>quasar</i> DVOŘÁK, 1996 ( <i>Zyras</i> ) <sup>1)</sup>   | Burma, Malay Peninsula,<br>Thailand, Vietnam               |
| <i>rufithorax</i> CAMERON, 1930 ( <i>Termidonia</i> ) <sup>1)</sup><br>= <i>hanoiensis</i> PASNIK, 2000 | Burma, Malay peninsula,<br>Thailand, Vietnam               |
| <i>trapeziceps</i> DVOŘÁK, 1996 ( <i>Zyras</i> ) <sup>1)</sup>  | Vietnam  |
| <i>unicornis</i> DVOŘÁK, 1996 ( <i>Taprodonia</i> ) <sup>1)3)</sup>                                     | Vietnam  |
| <i>vietnamicus</i> DVORAK, 1996 ( <i>Crateodonia</i> ) <sup>1)3)</sup>                                  | Vietnam  |
| <i>yangi</i> BERNHAUER, 1939 ( <i>Glossacantha</i> ) <sup>1)</sup>                                      | China (Fujian, Hainan),<br>Hong Kong, Thailand,<br>Vietnam |

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### Zusammenfassung

Fünf Arten der Tribus Lomechusini werden aus der Umgebung von Sa Pa, Nord-Vietnam, beschrieben und abgebildet *Amaurodera projecta* nov.sp., *Drusilla perforans* nov.sp., *Orphnebius fansipanicus* nov.sp., *Peltodonia atripalpis* nov.sp. und *Zyras (Zyras) fansipanicus* nov.sp. Drei wahrscheinlich unbeschriebene Arten waren ausschließlich durch Weibchen vertreten und bleiben daher unbenannt. Typenmaterial von neun zuvor beschriebenen Arten wird revidiert und abgebildet. Die männlichen Sexualmerkmale von *Peltodonia chinensis* (PACE, 1998) und *Tetrabothrus bicolor* CAMERON, 1939 werden erstmals abgebildet. Zwei Namen werden synonymisiert und zwei neu kombiniert: *Tetrabothrus japonicus* NAKANE, 1991 = *T. vietnamiculus* PACE, 2013; nov.syn.; *Zyras neoparageminus* HLAVÁČ, NEWTON & MARUYAMA, 2011 = *Z. subgeminus* PACE, 2012, nov.syn.; *Zyras (Zyras) funestus* (DVOŘÁK, 1996), nov.comb. (ex *Orphnebius* MOTSCHULSKY, 1858); *Zyras (Glossacantha) laocaiensis* PACE, 2008, nov.comb. (ex *Pella* STEPHENS, 1833). Für *Tetrabothrus bicolor* CAMERON, 1939 wird ein Lectotypus designiert. Drei Arten und drei Gattungen werden erstmals aus Vietnam nachgewiesen. Die Lomechusini-Fauna Vietnams umfasst derzeit 29 Arten von teilweise zweifelhaftem Status in sieben Gattungen. Ein Katalog der Lomechusini von Vietnam wird erstellt.

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