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On the Lomechusini fauna of the East Palaearctic and Oriental regions, with a focus on the genera *Orphnebius* and *Amaurodera* (Coleoptera: Staphylinidae: Aleocharinae)

With 177 figures, 2 maps and 1 table

Volker Assing [1]

[1] Gabelsbergerstraße 2, 30163 Hannover, Germany. – vassing.hann@t-online.de
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Abstract

Types and additional material of 13 genera of Lomechusini from the Palaearctic and Oriental regions are revised. In all, 28 species are (re-)described and/or illustrated, 17 of them new: *Orphnebius* (*Deroleptus*) *triacuminatus* spec. nov. (Thailand) of the *O. draco* group; *O.* (*D.*) *gracilis* spec. nov. (South India) and *O.* (*D.*) *protuberatus* spec. nov. (South India) of the *O. niger* group; *O.* (*D.*) *pertortus* spec. nov. (India: West Bengal), *O.* (*D.*) *migrus* spec. nov. (India: Meghalaya), and *O.* (*D.*) *reticulipennis* spec. nov. (Indonesia: Java) of the *O. siwalikensis* group; *Pheidologitonetes bursata* spec. nov. (South India); *Amaurodera bicarinata* spec. nov. (India: Meghalaya); *A. gilvicornis* spec. nov. (Thailand); *A. latisulcata* spec. nov. (Indonesia: Java); *A. brevipes* spec. nov. (Indonesia: Sumatra); *A. migritheca* spec. nov. (Indonesia: Sumatra); *A. longisetosa* spec. nov. (Malaysia: Sabah); *A. calicitheca* spec. nov. (Malaysia: Sabah); *Drusilla lativentris* spec. nov. (China: Yunnan); *Rabdotodrusilla vara* spec. nov. (India: Meghalaya); *Witteia tensa* spec. nov. (China: Yunnan). The following new combination and synonymy are established: *Pheidologitonetes adesi* (Pace, 1998), comb. nov. (ex *Zyrastilbus*); *Drusilla obliqua* (Bernhauer, 1916) = *D. palata* Assing, 2015, syn. nov. *Zyrastilbus angkorensis* Pace, 2004 is not congeneric with the type species of *Zyrastilbus* Cameron, 1939; its correct generic assignment (*Drusilla*?) is currently unknown. An updated catalogue of the 174 described representatives of *Orphnebius* Motschulsky, 1858 in the East Palaearctic and Oriental regions is provided; the species are grouped according to a recently proposed intrageneric system. *Amaurodera* Fauvel, 1905 currently includes 53 described species distributed in the southern East Palaearctic and the Oriental regions. Additional records of 46 named and three unnamed species are reported, among them several new country records. The distributions of two Himalayan *Orphnebius* species are mapped.

Nomenclatural acts

Orphnebius (*Deroleptus*) *triacuminatus* spec. nov. – urn:lsid:zoobank.org:act:A8C586C1-2037-4DE5-997C-7B5DFD7F8581
O. (*D.*) *gracilis* spec. nov. – urn:lsid:zoobank.org:act:F52577E3-1AD2-4C33-80E9-1C129D969EFB
O. (*D.*) *protuberatus* spec. nov. – urn:lsid:zoobank.org:act:06A78E32-C968-43A9-97E1-7682FE870CB6
O. (*D.*) *pertortus* spec. nov. – urn:lsid:zoobank.org:act:D6784D78-D101-4BF6-B59F-78D0097BF255
O. (*D.*) *migrus* spec. nov. – urn:lsid:zoobank.org:act:550FAFD7-3EA5-40E2-9E95-9203CB6C7505
O. (*D.*) *reticulipennis* spec. nov. – urn:lsid:zoobank.org:act:A4F9C29A-34F2-4B67-AD44-3CB3593B3D89
Pheidologitonetes bursata spec. nov. – urn:lsid:zoobank.org:act:77C109C7-DED4-4297-95B4-519B7E085212
Amaurodera bicarinata spec. nov. – urn:lsid:zoobank.org:act:6504024F-CF61-4071-A1BA-E11A73AE16B0
A. gilvicornis spec. nov. – urn:lsid:zoobank.org:act:8AD61DB5-D227-4158-93B3-0F902BFF8C8F

A. latisulcata spec. nov. – urn:lsid:zoobank.org:act:FA0BB6D1-AA68-4368-8640-CC5B576FB393
A. brevipes spec. nov. – urn:lsid:zoobank.org:act:9EEEC874-0C9A-4809-A8F5-B44EA72217BF
A. migritheca spec. nov. – urn:lsid:zoobank.org:act:AAE44C1B-FD1A-49CF-B08B-C6F067F54F09
A. longisetosa spec. nov. – urn:lsid:zoobank.org:act:887533D9-985B-41FE-B3C8-F1FF8938DC8B
A. calicitheca spec. nov. – urn:lsid:zoobank.org:act:774965EE-4326-45C1-B89E-303A3B4AC04F
Drusilla lativentris spec. nov. – urn:lsid:zoobank.org:act:7CAC3239-9821-4DF6-BB7A-C8A564E9AF14
Rabdotodrusilla vara spec. nov. – urn:lsid:zoobank.org:act:EF92FF0F-0E13-4BCB-9D20-270262CA9D76
Witteia tensa spec. nov. – urn:lsid:zoobank.org:act:32B142EA-09BF-423E-8951-C710CE8AF383

Key words

Coleoptera, Staphylinidae, Aleocharinae, Lomechusini, Palaearctic region, Oriental region, taxonomy, new species, new synonymy, new combination, catalogue, zoogeography, distribution maps, additional records.

Zusammenfassung

Typen und weiteres Material von 13 Gattungen der Tribus Lomechusini aus der Ostpaläarktis und der Orientalis werden revidiert. Insgesamt werden 28 Arten beschrieben und/oder abgebildet, 17 davon neu: *Orphnebius* (*Deroleptus*) *triacuminatus* spec. nov. (Thailand) aus der *O. draco*-Gruppe; *O.* (*D.*) *gracilis* spec. nov. (Südindien) und *O.* (*D.*) *protuberatus* spec. nov. (Südindien) aus der *O. niger*-Gruppe; *O.* (*D.*) *pertortus* spec. nov. (Nordindien: Westbengalen), *O.* (*D.*) *migrus* spec. nov. (Nordostindien: Meghalaya) und *O.* (*D.*) *reticulipennis* spec. nov. (Indonesien: Java) aus der *O. siwalikensis*-Gruppe; *Pheidologitonetes bursata* spec. nov. (Südindien); *Amaurodera bicarinata* spec. nov. (Nordostindien: Meghalaya); *A. gilvicornis* spec. nov. (Thailand); *A. latisulcata* spec. nov. (Indonesien: Java); *A. brevipes* spec. nov. (Indonesien: Sumatra); *A. migritheca* spec. nov. (Indonesien: Sumatra); *A. longisetosa* spec. nov. (Malaysia: Sabah); *A. calicitheca* spec. nov. (Malaysia: Sabah); *Drusilla lativentris* spec. nov. (China: Yunnan); *Rabdotodrusilla vara* spec. nov. (Nordostindien: Meghalaya); *Witteia tensa* spec. nov. (China: Yunnan). Zwei Namen werden neu kombiniert bzw. synonymisiert: *Pheidologitonetes adesi* (Pace, 1998), comb. nov. (ex *Zyrastilbus*); *Drusilla obliqua* (Bernhauer, 1916) = *D. palata* Assing, 2015, syn. nov. *Zyrastilbus angkorensis* Pace, 2004 ist mit der Typusart von *Zyrastilbus* Cameron, 1939 nicht kongenerisch, die korrekte Gattungszugehörigkeit (*Drusilla*?) ist derzeit unsicher. Ein aktualisierter Katalog der insgesamt 174 in der Ostpaläarktis und Orientalis vertretenen beschriebenen Arten der Gattung *Orphnebius* Motschulsky, 1858 wird erstellt; die Arten werden, soweit möglich, Artengruppen zugeordnet. Die in der südlichen Ostpaläarktis und der Orientalis verbreitete Gattung *Amaurodera* Fauvel, 1905 enthält derzeit 53 beschriebene Arten. Weitere Nachweise von 46 beschriebenen und drei unbenannten Arten werden gemeldet, darunter mehrere Erstnachweise. Die Verbreitungsgebiete zweier im Himalaya verbreiteter *Orphnebius*-Arten werden anhand von Karten illustriert.

1 Introduction

The Lomechusini form a mega-diverse, but polyphyletic tribe of the Aleocharinae, at present comprising around 2300 species worldwide, many of them associated with ants or termites (Assing 2016b, Hlaváč et al. 2011). The Palaearctic and Oriental representatives of some genera have been subject to revisionary work (for an overview see Assing 2016b), but most taxa have been described in the context of articles dealing with miscellaneous Staphylinidae or Aleocharinae.

Since the latest contribution (Assing 2016b), type material of several species and additional material from various sources has been examined, including 17 new species and numerous new records. The material of *Zyras* sensu strictu from China, as well as from other areas in the southern East Palaearctic and Oriental regions has been addressed separately (Assing 2016a, 2017).

2 Material and methods

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

BMNH	The Natural History Museum, London (R. G. Booth)
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Bruxelles (Y. Gérard)
MHNG	Muséum d'Histoire Naturelle, Genève (G. Cuccodoro)
NME	Naturkundemuseum Erfurt (M. Hartmann, assisted by W. Apfel)
NMP	National Museum of Natural History, Praha (J. Hájek)
cAss	author´s private collection
cKle	private collection Andreas Kleeberg, Berlin
cRou	private collection Guillaume de Rougemont, Oxford
cSha	private collection Alexey Shavrin, Daugavpils
cSme	private collection Aleš Smetana, Ottawa

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). The images of the external characters were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software, as well as a digital camera (Nikon Coolpix 995). The maps were created using MapCreator 2.0 (primap) software.
Body length was measured from the anterior margin of the labrum to the apex of the abdomen, 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 ante-clypeus) to the posterior constriction of the head, the length of the elytra along the suture from the apex of the scutellum to the posterior margin of the elytra, the length of the median lobe of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule, and the length of the spermatheca is given as the maximal extension (measured from the apex of the distal portion of the capsule). The "parameral" side of the median lobe of the aedeagus (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

3 Results

3.1 Genus *Pella* Stephens, 1835

Pella jureceki (Dvořák, 1981)

Material examined: **Russia**: 5 exs., Far East, Maritime Prov., Khanka lake, 3.–8.VI.2008, leg. Vakhrushev et al. (cSha, cAss).

Comment: *Pella jureceki* has been recorded from the Russian Far East, Korea, and the Chinese provinces Beijing, Qinghai, and Gansu (Assing 2015b).

3.2 Genus *Orphnebius* Motschulsky, 1858

3.2.1 Diversity and systematics of *Orphnebius* in the East Palaearctic and Oriental regions

The East Palaearctic and Oriental *Orphnebius* fauna is currently represented by 175 species, at least 13 of them of doubtful identity. In the majority of species (*O. hauseri* group), the male sexual characters are crucial for a positive identification at the species level; the spermatheca may be suitable for an identification of the respective subgroup, but is insufficient for the diagnosis of species. For more details see Assing (2016b). Two main lineages are identified within Palaearctic and Oriental *Orphnebius*. The more speciose of them is the *O. hauseri* group (76 species), which again is composed of several subgroups (Assing 2016b). At some point, this group name will be replaced by one of the existing subgeneric names proposed by Bernhauer (1929). However, not all of the type species of these names have been revised yet; for a discussion of the problem see Assing (2016b). The second lineage is formed by the species now assigned to the subgenus *Deroleptus* (69 species), which can be divided into three sub-lineages (for details see Assing 2016b), the *O. draco* group (3 species), the *O. niger* group (18 species), and the *O. siwalikensis* group (35 species). The subgroup affiliations of the remaining 13 *Deroleptus* species is unclear, as they have not been revised and their respective original descriptions are insufficient for a positive assignment. The same is true of the species listed as *Orphnebius* incertae sedis (30 species). They need to be revised in order to attribute them to either the *O. hauseri* group or *Deroleptus* (and the respective subgroups).

3.2.2 Catalogue of the *Orphnebius* species of the East Palaearctic and Oriental regions

In view of the numerous additions and the significant rearrangement of the intrageneric systematics proposed by Assing (2016b) and in the present paper, the recent catalogue by Hlaváč et al. (2011) is now rather outdated. Therefore, a revised and updated catalogue is provided below. However, this list does not include species distributed in regions other than the Palaearctic and Oriental regions.
This checklist also includes taxa currently regarded as distinct genera, but closely allied to *Orphnebius*. The possibility that these taxa may eventually have to be included in *Orphnebius* cannot be ruled out with certainty.
Only recent articles containing illustrations and/or confirmed records are listed in the References column. They are abbreviated as follows:
A06b = Assing 2006b; A08 = Assing (2008); A09 = Assing (2009); A10 = Assing (2010); A11 = Assing (2011); A15a = Assing (2015a); A15c = Assing (2015c); A16b = Assing (2016b); App = Assing (present paper); Kal97 = Kistner et al. (1997); KK96 = Kistner & Klein (1996); KM91 = Kistner & McNairn (1991); M04 = Maruyama (2004); P86 = Pace (1986); P87 = Pace (1987); P92 = Pace (1992); P93 = Pace (1993); P00 = Pace (2000); P01b = Pace (2001b); P04 = Pace (2004); P07 = Pace (2007); P08b = Pace (2008b); P10 = Pace (2010); P12a = Pace (2012a); P12b = Pace (2012b); P13 = Pace (2013); P14 = Pace (2014); P15 = Pace (2015).

References containing illustrations of taxonomically important characters are underlined.
Species of doubtful identity (species of the *O. hauseri* group whose description is based on females; genitalia not illustrated and probably lost) are marked with an asterisk.

Species	Distribution	References
***hauseri* group**		
acutissimus Pace, 2014[1)]	Borneo (Malaysia: Sabah)	P14
acutus Pace, 2014	Borneo (Malaysia: Sabah)	P14, App
alesi Assing, 2010	China: Yunnan	A10, A15a
ancorarius Assing, 2011	Nepal	A11, A15a
**anguliceps* Cameron, 1943	Borneo (Brunei, Malaysia: Sabah)	P07, P14
antennarius Bernhauer, 1929	Borneo (Malaysia: Sabah)	P07, App
appendiculatus Assing, 2006	Nepal	A06b, A09, App
bakeri Bernhauer, 1929	Singapore; Borneo (Malaysia, Indonesia)	A16b, P07
biapicalis Pace, 2007	Borneo (Malaysia: Sabah)	P07
bicuspis Assing, 2016	Laos	A16b
biformis Assing, 2016	Indonesia: Sumatra	A16b
breviceps Cameron, 1946 = *vorax* Pace, 2000	Thailand	A16b
**cachemiricus* Coiffait, 1983	Kashmir	A06b
cernens Assing, 2016	Laos	A16b
**chiangmaiensis* Pace, 2000	Thailand	
concavus Pace, 2014[1)]	Borneo (Malaysia: Sabah)	P14
conicornis Assing, 2006	China: Sichuan, Shaanxi	A06b
**crassus* Pace, 2007	Borneo (Malaysia: Sabah)	P07
depressicollis Assing, 2006	Central Nepal	A06b, A16b, App
dhaulagiricus Assing, 2006	Nepal: Dhaulagiri	A06b, App
dilatatus Assing, 2016	Laos	A16b
dishamatus Assing, 2015	China: Yunnan	A15a, A15c
effeminatus Assing, 2016	Malaysia: Pahang	A16b
extensus Assing, 2016	Laos	A16b
fansipanicus Assing, 2015	Vietnam	A15c
flaviventris Champion, 1921	N-India: Uttar Pradesh	A06b
fodens Assing, 2016	Borneo (Malaysia: Sabah)	A16b
formosanus Assing, 2015	Taiwan	A15a, App
fuscapicalis Assing, 2016	Laos	A16b
*fusicollis*Assing, 2016	Laos	A16b
gibber Assing, 2006	China (Shaanxi, Yunnan)	A06b, A16b
grandicollis Assing, 2016	Laos	A16b
hamatus Assing, 2006	Nepal	A06b
harpagonum Pace, 2010	Indonesia: Sumatra	P10
hastatus Assing, 2006	Nepal	A06b, A15a
hauseri Eppelsheim, 1895	Pakistan; North India (Himachal Pradesh, Uttarakhand); Nepal	A06b, A09, A15a, App
ideogramma Pace, 2007	Borneo (Malaysia: Sabah)	P07, P14
**incertus* Pace, 2004	Thailand	

Footnotes: [1)] group assignment tentative, based on original description; [2)] most likely a junior synonym of *Deroleptus*; [3)] most likely belonging to the *O. dilatatus* subgroup of the *O. hauseri* group.

Species	Distribution	References
incisus Pace, 2000	Thailand; Yunnan?	P00
incrassatus Assing, 2015	China: Yunnan	A15a, A16b
integer Assing, 2016	Laos	A16b
jumlaicus Assing, 2006	Pakistan; Kashmir; North India (Himachal Pradesh, Uttarakhand); Nepal	A06b, A15a, A16b, App
kleini Kistner, 1996	Peninsular Malaysia	KK96
krypticola Pace, 2007	Borneo: Brunei	A16b, P07
latitibialis Assing, 2016	Laos	A16b
lunatus Assing, 2016	Laos	A16b
loebli Pace, 1992	Nepal	A06b, P92
longistriatus Assing, 2006	China: Sichuan	A06b
minor Pace, 2007	Borneo (Malaysia: Sabah)	P07
mutabilis Assing, 2006	Nepal	A06b, A15a, App
newar Pace, 1992	Nepal	A06b, P92
nigrapicalis Assing, 2016	Laos	A16b
ocularis Pace, 2014	Borneo (Malaysia: Sabah)	P14, App
oculatus Coiffait, 1982	N-India: Himachal Pradesh; Nepal	A06b, A09
opticus Cameron, 1946	Thailand	A16b
parvilobus Assing, 2006	China: Sichuan	A06b
paucisetosus Assing, 2009	Nepal	A09, A15a
penangensis Pace, 2007	Malaysia: Penang	P07
perpenetrans Pace, 2007	Borneo (Malaysia: Sabah)	A16b, App, P07
prominens Assing, 2006	Nepal	A06b
pugiunculus Assing, 2006	Nepal	A06b
reductus Assing, 2016	Laos	A16b
retunsus Assing, 2016	Laos	A16b
rosciszewskii Kistner, 1997	Peninsular Malaysia	Kal97
rougemonti Pace, 1986	Myanmar	P86
**rufiventris* (Eppelsheim, 1895)	Pakistan	A06b
**sailender* Pace, 2010	Indonesia: Java	P10
schuelkei Assing, 2006	China (Sichuan, Shaanxi/Chongqing)	A06d, A16b
scissus Assing, 2009	China: Yunnan	A09, A15a
**semivorax* Pace, 2000	Thailand	
serratus Assing, 2016	Laos	A16b
**setiger* Pace, 1992	Thailand, Vietnam	
**silvarum* Pace, 1987	Borneo (Malaysia: Sabah)	P87
spinans Assing, 2016	India: Arunachal Pradesh	A16b
thai Pace, 2000	Thailand	P00
truncus Assing, 2009	China: Yunnan	A09
uncinatus Pace, 2012	China: Sichuan	P12
uniformis Pace, 2007	Borneo (Malaysia: Sabah)	P07

Species	Distribution	References
subgenus *Deroleptus* Bernhauer, 1915 = *Megalocephalobius* Bernhauer, 1929		
***draco* group**		
draco Assing, 2010	China: Yunnan	A10
multimpressus Assing, 2015	China: Yunnan	A15a, A16b, App
triacuminatus **sp. n.**	Thailand	App
***niger* group**		
bakerianus Bernhauer, 1929	Borneo (Malaysia: Sabah)	P07
ceylonicus (Cameron, 1939)	Sri Lanka	A16b
cultellatus Assing, 2016	China (Yunnan); Thailand; Laos; Borneo (Malaysia: Sabah)	A16b, App
discrepans Assing, 2016	China (Yunnan); Thailand	A16b, App
gracilior Assing, 2016	India: Arunachal Pradesh	A16b
gracilis **sp. n.**	South India: Tamil Nadu	App
loeiensis Pace, 2004	Thailand	P04
nanlingensis Pace, 2004	China (Fujian, Guangdong)	A06b, A06c, P04
niger (Cameron, 1939) = *turensis* Pace, 2012	India (Assam, Meghalaya)	A16b, App
parabigladiosus Pace, 2014[1)]	Borneo (Malaysia: Sabah)	P14
protuberatus **sp. n.**	South India: Kerala	App
quadricuspidatus Bernhauer, 1929 = *quadrigladiosus* Pace, 1987	Borneo (Malaysia: Sabah)	P87, P07, P14
sexcarinatus Assing, 2016	Indonesia: Sumatra	A16b
siamensis Cameron, 1939	Thailand	A16b
spoliatus Assing, 2016	Laos	A16b
triapicalis Assing, 2016	China: Sichuan	A16b
tricuspis Assing, 2009	China: Yunnan	A09, A15a
tridentatus Assing, 2015	China: Yunnan	A15a
***siwalikensis* group**		
alumnus Pace, 1987	Peninsular Malaysia	P87
baccillatus Assing, 2016	Laos; Taiwan	A16b, App
bartolozii Pace, 2013[1)]	Malaysia	P13
bigladiosus (Bernhauer, 1915)	Borneo (Malaysia: Sarawak, Sabah)	P07
biimpressus Assing, 2016	Indonesia: Sumatra	A16b
borneanus Pace, 2007	Borneo (Malaysia: Sabah)	P07
borneofuscipes Pace, 2015[1)]	Borneo (Malaysia: Sabah)	P15
carinatus Assing, 2016	Laos	A16b
clarus Pace, 2000	Thailand	P00
directus Pace, 2007	Borneo (Malaysia: Sabah)	P07
dispar Assing, 2016	India: Meghalaya, Arunachal Pradesh	A16b
drugmandi Pace, 2004	Thailand	P04
falagrioides Bernhauer, 1929	Philippines: Luzon	A16b
fugangensis Pace, 2008	China: Guangdong	P08
grootaerti Pace, 2004	Thailand	P04

Species	Distribution	References
hartmanni Pace, 2012	Malaysia	P12b
laticeps Cameron, 1925	Indonesia: Sumatra	A16b
malaypusillus Pace, 2012	Malaysia	P12b
migrus **sp. n.**	Northeast India: Meghalaya	App
**orousseti* Pace, 1990	Philippines	
pertortus **sp. n.**	North India: West Bengal	App
planicollis Assing, 2015	China: Yunnan	A15a
platycephalus Pace, 1987	Borneo (Malaysia: Sabah)	P87
reticulipennis **sp. n.**	Indonesia: Java	App
scalaris Pace, 2007	Borneo (Malaysia: Sabah)	P07
septemcuspis Assing, 2016	Laos	A16b
siwalikensis Cameron, 1939	N-India: Himachal Pradesh	A06b
tautauorum Pace, 1993	Indonesia: Sulawesi	P93
toradya Pace, 1993	Indonesia: Sulawesi	P93
tortus Assing, 2016	India: Meghalaya	A16b
tuberipennis Assing, 2008	South India: Goa	A08
ulcerosus Assing, 2016	Borneo (Malaysia: Sabah)	A16b
vates Assing, 2016	Laos	A16b
willersi Pace, 2001	Vietnam	A15c, P01b
subgenus *Deroleptus*, incertae sedis		
angkorensis Pace, 2004	Thailand; Cambodia	P04
arachnoides (Bernhauer, 1929)	Borneo (Malaysia: Sabah)	
cavipennis (Bernhauer, 1929)	Philippines: Luzon	
ceylonicus (Cameron, 1939)	Sri Lanka	
doherti (Cameron, 1945)	Borneo (Indonesia)	
excellens Cameron, 1939	Indonesia: Java	
impressipennis (Cameron, 1950)	Peninsular Malaysia	
minarzi (Bernhauer, 1929)	Philippines: Biliran	
rufocastanea (Cameron, 1920)	Sri Lanka	
splendens Bernhauer, 1929	Borneo (Malaysia: Sabah)	
superbus (Bernhauer, 1916)	Philippines: Luzon	
terminalis Cameron, 1936	Peninsular Malaysia	
***Orphnebius*, incertae sedis**		
bajauorum Pace, 2007	Borneo (Malaysia: Sabah)	P07
birmanus Cameron, 1939	Myanmar	
brevicollis Bernhauer, 1929	Singapore, Peninsular Malaysia	P87
bryanti Cameron, 1920	Sri Lanka	
cingulatus Cameron, 1920	Sri Lanka	
curticornis Pace, 2007	Borneo (Malaysia: Sabah)	P07
densicauda Bernhauer, 1929	Philippines: Samar	
derougemonti Pace, 1987	Borneo (Malaysia: Sabah)	P87

Species	Distribution	References
drescheri Cameron, 1939	Indonesia: Java	
fugangensis Pace, 2008	China: Guangdong	P08b
glaberrimus Cameron, 1941	Philippines: Luzon	
indicus Cameron, 1939	India	
javanus Cameron, 1939	Indonesia: Java	
**laetus* Pace, 1987	Borneo (Malaysia: Sabah)	P87
laevigatus (Kraatz, 1859)	"India orientali": Myanmar?	
luzonicus Bernhauer, 1915	Philippines: Luzon	
magniceps Bernhauer, 1929	Singapore	
makilinganus Bernhauer, 1929	Philippines: Luzon	
minutissimus Bernhauer, 1929	Philippines: Luzon	
miricornis Bernhauer, 1929	Philippines: Luzon; [Indonesia: Sulawesi]	
**nocturnus* Pace, 1987	Indonesia: Lombok	P87
ophthalmicus Cameron, 1936	Indonesia: Sumatra	
politus Cameron, 1930	Malaysia: Langkawi Islands	
puangorum Pace, 1993	Indonesia: Sulawesi	P93
rufoflavus Cameron, 1939	Indonesia: Java	
setiferus Cameron, 1939	Indonesia: Java	
termitis (Motschulsky, 1860)	Sri Lanka	
**thailandensis* Pace, 1986	Thailand	P86
wasmannianus Bernhauer, 1929	Philippines: Samar	
***Myrmecopella* Bernhauer, 1911** = *Aethorphnebius* Pace, 1993		
marlowi Maruyama, 2004	Indonesia: Sulawesi	M04
brendelli Maruyama, 2004	Indonesia: Sulawesi	M04
celebensis Kistner & McNairn, 1991 = *rantepaoensis* (Pace, 1993)	Indonesia: Sulawesi	KM91, P93
horii Maruyama, 2004	Indonesia: Sulawesi	M04
miricollis (Pace, 1993)	Indonesia: Sulawesi	P93
talodonis Maruyama, 2004	Indonesia: Sulawesi	M04
tengahensis Maruyama, 2004	Indonesia: Sulawesi	M04
utarana Maruyama, 2004	Indonesia: Sulawesi	M04
yamauchii Maruyama, 2004	Indonesia: Sulawesi	M04
***Strabocephalium* Bernhauer, 1911**		
borneorum Pace, 2014	Borneo (Malaysia: Sabah)	A16b, P14
kistneri Löbl, 1997	Philippines	
mirabile Bernhauer, 1911	Borneo (Malaysia: Sarawak, Sabah)	A16b, P87, P14
***Keratodegnathus* Pace, 2014**[2)]		
mirabilis Pace, 2014[3)]	Borneo (Malaysia: Sabah)	P14
rougemonti Pace, 2014	Borneo (Malaysia: Sabah)	P14

3.2.3 Descriptions and records

3.2.3.1 *Orphnebius hauseri* group

Orphnebius hauseri Eppelsheim, 1895

(Map 1)

Material examined: **Pakistan**: 2 exs., Hazara, Nathias Gali, 2500 m, 5.VI.1983, leg. Besuchet & Löbl (MHNG, cAss).

Comment: *Orphnebius hauseri* had been reported from North India (Himachal Pradesh, Uttarakhand) and Nepal (Assing 2006b, 2009, 2015a). The above specimens represent the first record from Pakistan. The currently known distribution is illustrated in Map 1.

Orphnebius jumlaicus Assing, 2006

(Map 2)

Material examined: **Pakistan**: 2 exs., Chitral, Lawarai pass, 2600 m, 23.V.1983, leg. Besuchet & Löbl (MHNG); 1 ex., Dir, Lawarai pass, 2700 m, 21.V.1983, leg. Besuchet & Löbl (cAss). **India**: 6 exs., Uttarakhand, Garwhal, 2 km E Dhanaulti ["Dhanolti"; 30.45°N, 78.25°E], 2250 m, 21.X.1979, leg. Löbl (MHNG, cAss); 1 ♀, Uttarakhand, Garwhal, 10 km E Dhanaulti, 2450 m, 21.X.1979, leg. Löbl (MHNG); 2 exs., Uttarakhand, Garwhal, 6 km E Dhanaulti, 2300 m, 21.X.1979, leg. Löbl (MHNG, cAss); 6 exs., Uttarakhand, Kumaon, Chaubattia, 1950 m, 14.X.1979, leg. Löbl (MHNG, cAss); 1 ex., Uttarakhand, Kumaon, Chaubattia, near Ranikhet, 1800 m, 12–13.X.1979, leg. Löbl (MHNG); 3 ♀♀, Uttarakhand, Kumaon, Rangarh, 2250 m, 9.X.1979, leg. Löbl (MHNG).

Comment: The previously known distribution of this West Himalayan species ranged from Kashmir across Himachal Pradesh to West Nepal (Assing 2006b, 2015a, 2016b). The above specimens from Pakistan represent a new country record, those from Uttarakhand new province records. The currently known distribution, which is largely congruent with that of *O. hauseri*, is illustrated in Map 2.

Orphnebius depressicollis Assing, 2006

Material examined: **Nepal**: 1 ♂, Lalitpur District, Phulchoki, 2600–2700 m, 15.X.1983, leg. Smetana & Löbl (MHNG).

Comment: *Orphnebius depressicollis* has been recorded only from Central Nepal. All previous records were from Bagmati province (Assing 2006b, 2016b).

Orphnebius dhaulagiricus Assing, 2006

Material examined: **Nepal**: 1 ♂, Dhaulagiri, Baglung Lekh, ca. 15 km W Baglung, 2400 m, 11.V.2004, leg. Kleeberg (cAss).

Comment: The original description of this species is based on a unique male from the Dhaulagiri range (Assing 2006b).

Orphnebius appendiculatus Assing, 2006

Material examined: **Nepal**: 1 ♂, 1 ♀, Dhaulagiri, Baglung Lekh, upper Tara Khola, 2600 m, 18.V.2004, leg. Kleeberg (cKle, cAss); 2 ♀♀, Dhaulagiri, Baglung Lekh, ca. 30 km W Baglung, northern Tara Khola, 2800 m, 20.V.2004, leg. Kleeberg (cKle); 4 exs., Mustang District, Lete, 2550 m, 2.X.1983, leg. Smetana (MHNG, cAss).

Comment: *Orphnebius appendiculatus* had been recorded from several localities in the Dhaulagiri and Annapurna ranges, as well as one in East Nepal (Assing 2006b, 2009).

Orphnebius mutabilis Assing, 2006

Material examined: **Nepal**: 1 ♀, Rolwaling Himal, Simigaon, 2700–2800 m, 1.VI.2000, leg. Kleeberg (cKle); 1 ♀, Rolwaling Himal, Simigaon, 2600 m, 2.VI.2000, leg. Schmidt (Kle); 1 ♂, same data, but 10.IX.1999 (cAss).

Comment: This species has been recorded from several localities in Central and East Nepal (Assing 2006b, 2009).

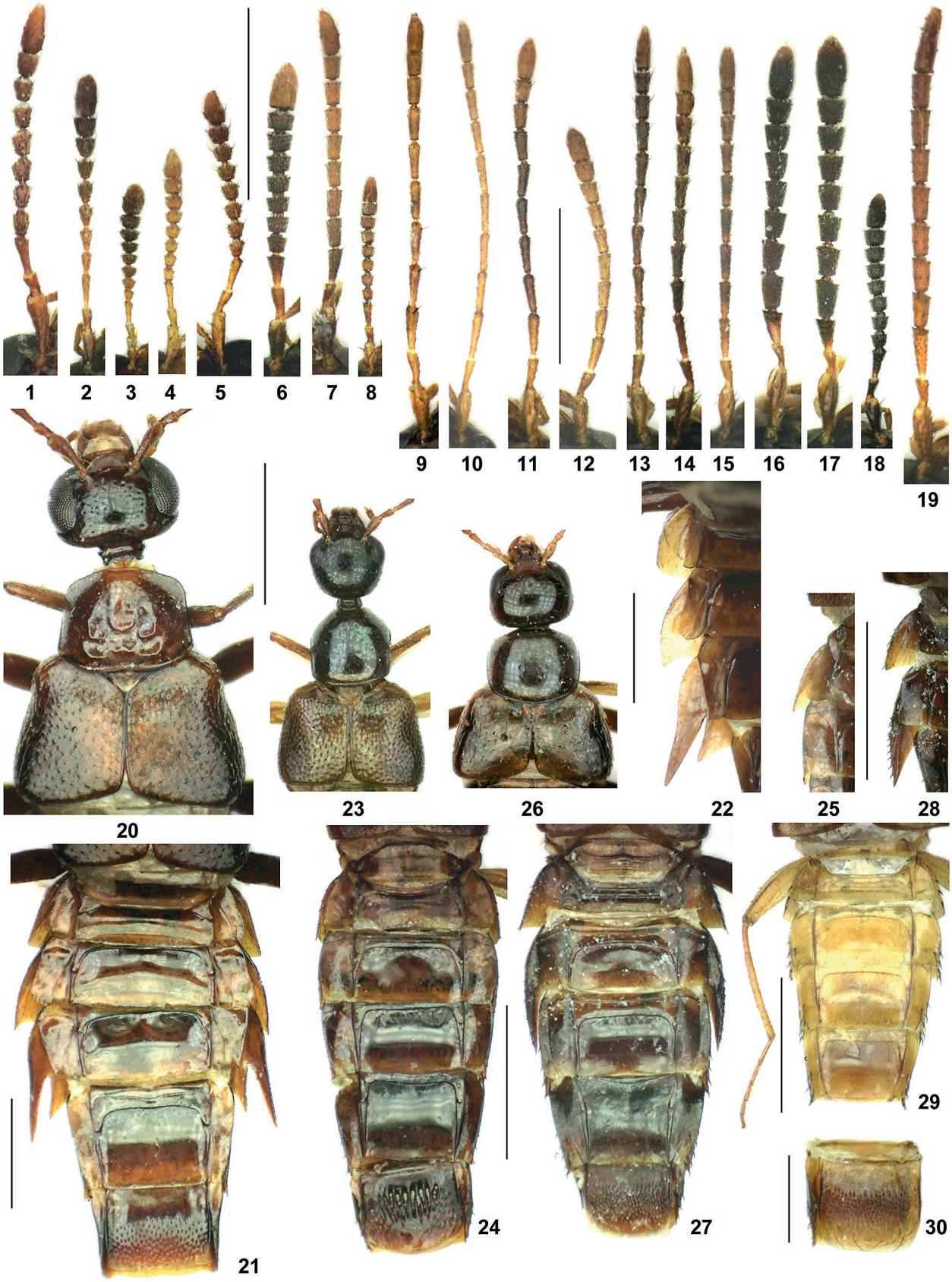
Orphnebius formosanus Assing, 2015

Material examined: **Taiwan**: 1 ♂, Nantou Hsien, Meifeng, 2130 m, 12.V.1991, leg. Smetana (MHNG).

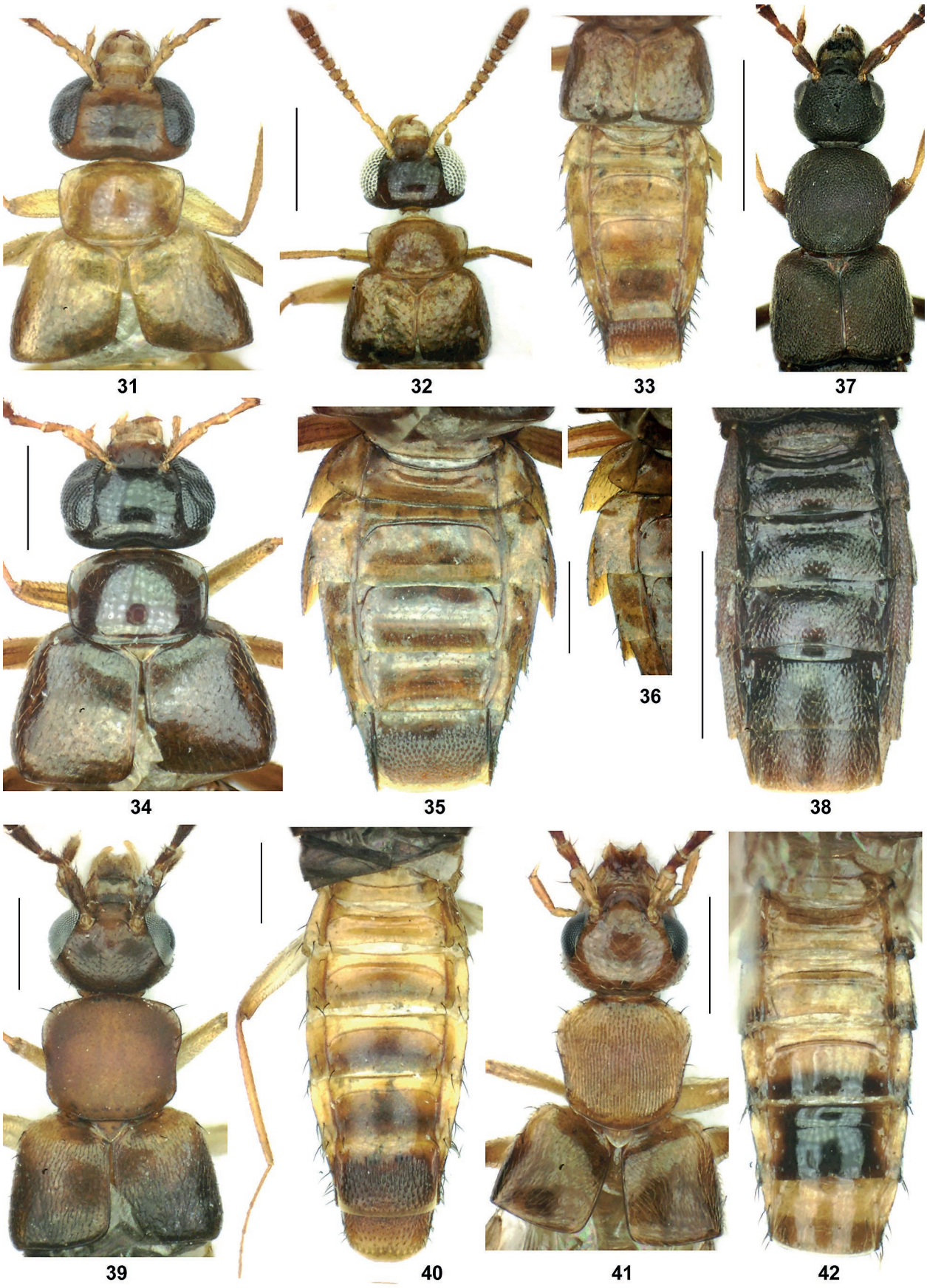
Comment: The above male was collected at the type locality of this recently described species, whose known distribution is confined to several localities in Taiwan (Assing 2015a).

Orphnebius perpenetrans Pace, 2007

Material examined: **Malaysia**: 1 ex., Sabah (Borneo), Crocker Range, 1550–1650 m, 16.V.1987, leg. Burckhard & Löbl (MHNG); 1 ex., Sabah (Borneo), Mt. Kinabalu, 1500 m, 30.IV.1987, leg. Burckhard & Löbl (cAss).



Figs 1–30: Antenna (**1–19**), forebody (**20, 23, 26**), abdomen (**21, 24, 27, 29**), antero-lateral portion of abdomen in lateral-dorsal view (**22, 25, 28**), and abdominal segment VII (**30**) of *Orphnebius triacuminatus* (**1, 20–22**), *O. gracilis* (**2, 23–25**), *O. protuberatus* (**3, 26–28**), *O. pertortus* (**4, 29–30**), *O. reticulipennis* (**5**), *Zyrastilbus almorensis* (**6**), *Pheidologitonetes bursata* (**7**), *Rabdotodrusilla vara* (**8**), *Amaurodera bicarinata* (**9**), *A. gilvicornis* (**10**), *A. latisulcata* (**11**), *A. brevipes* (**12**), *A. migritheca* (**13**), *A. longisetosa* (**14**), *A. calicitheca* (**15**), *Drusilla smetanai* (**16**), *D. nepalensis* (**17**), *D. lativentris* (**18**), and *Witteia tensa* (**19**). Scale bars: 1–29: 1.0 mm; 30: 0.5 mm.



Figs 31–42: *Orphnebius pertortus* (**31**), *O. migrus* (**32–33**), *O. reticulipennis* (**34–36**), *Zyrastilbus almorensis* (**37–38**), *Pheidologitonetes bursata* (**39–40**), and *Rabdotodrusilla vara* (**41–42**): forebody (**31–32, 34, 37, 39, 41**); elytra and abdomen (**33**); abdomen (**35, 38, 40, 42**); antero-lateral portion of abdomen in dorso-lateral view (**36**). Scale bars: 37–38: 1.0 mm; 31–36, 39–42: 0.5 mm.

Comment: This species had been recorded only from Mt. Kinabalu, Sabah, Borneo (Assing 2016b, Pace 2007).

Orphnebius bakeri Bernhauer, 1929

Material examined: **Malaysia**: 3 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: *Orphnebius bakeri* has been recorded from Singapore and the Malaysian and Indonesian parts of Borneo. It was erroneously indicated from Brunei by Assing (2016b).

Orphnebius antennarius Bernhauer, 1929

Material examined: **Malaysia**: 2 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: The shape of the ventral process (lateral view) of the above material slightly differs from that of the holotype (Pace 2007: figure 30), but otherwise the specimens are in agreement with the description and illustrations provided by Bernhauer (1929) and Pace (2007). Based on the external and sexual characters (see Assing 2016b), this species is tentatively attributed to the *O. retunsus* subgroup. It is distinguished from the species previously assigned to this subgroup, however, by relatively large body size, the rather broad median lobe of the aedeagus (lateral view), and a different morphology of the parameres.

Orphnebius acutus Pace, 2014

Material examined: **Malaysia**: 1 ♂, Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cAss).

Comment: The label data of the above male are identical to those of the holotype. This species clearly belongs to the *O. retunsus* subgroup.

Orphnebius ocularis Pace, 2014

Material examined: **Malaysia**: 1 ♂, Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cAss).

Comment: The label data of the above male are identical to those of the holotype. This species, too, belongs to the *O. retunsus* subgroup.

Unnamed species

Orphnebius spec. nov.

Material examined: **Nepal**: 1 ♀, Rolwaling Himal, Simigaon, 2700–2800 m, 1.VI.2000, leg. Schmidt (cKle); 1 ♀, Annapurna, Lamjung Himal, W Taunja Dada, 5 km NE Sikles, 2200–3000 m, 19.V.1993, leg. Schmidt (cAss).

Comment: This most likely undescribed species of the *O. hauseri* group is distinguished from other congeners recorded from the Himalaya by larger size alone. It remains unnamed for want of males.

3.2.3.2 Subgenus *Deroleptus* Bernhauer, 1915

3.2.3.2.1 *Orphnebius draco* group

Orphnebius (*Deroleptus*) *multimpressus* Assing, 2015

Material examined: China: 1 ex., Yunnan, Xishuangbanna, 23 km NW Jinghong, Na Ban env., 22°09'N, 100°40'E, 730 m, Malaise trap, 18.VII.2008, leg. Weigel (NME).

Comment: This large and distinctive species has been recorded only from Xishuangbanna (Assing 2015a, 2016b).

Orphnebius (*Deroleptus*) *triacuminatus* spec. nov.

urn:lsid:zoobank.org:act:A8C586C1-2037-4DE5-997C-7B5DFD7F8581

(Figs 1, 20–22, 62–65)

Type material: Holotype ♀: "NW Thailand, 23.–31.5.1991, Mae Hong Son, Ban Si Lang, 1200 m, J. Horák leg. / Holotypus ♀ *Orphnebius triacuminatus* sp. n., det. V. Assing 2016" (NMP).

Etymology: The specific epithet (adjective: with three tips) alludes to the shape of sternite VIII.

Description: Rather large species, body length 6.8 mm; length of forebody 2.6 mm. Coloration (Figs 1, 20–21): head blackish; pronotum brown; elytra reddish with the postero-lateral portions extensively infuscate; abdomen brown with the anterior portions of the tergites more or less distinctly darker; legs dark-brown; antennae dark-brown with antennomeres I–II and the base of III pale brown and the apex of antennomere XI reddish.
Head (Fig. 20) distinctly transverse, posteriorly vertically sloping ventrad towards neck; posterior angles completely obsolete; neck approximately 0.35 times as wide as head; punctation moderately coarse and rather dense in lateral portions of dorsal surface, absent along middle; microsculpture in median dorsal portion obsolete, very shallow in lateral portions. Eyes large, strongly bulging, and of

oblong ellipsoid shape, not situated laterally, but dorsolaterally, posteriorly nearly reaching posterior margin of head. Antenna (Fig. 1) approximately 2.2 mm long and slender; antennomeres IV oblong, V weakly oblong, VI–VII approximately as broad as long, VIII–X weakly transverse, and XI approximately as long as the combined length of IX and X.
Pronotum (Fig. 20) moderately convex in cross-section, of transversely quadrangular shape, approximately 1.3 times as wide as long and as wide as head; anterior and posterior angles marked; disc with distinct impressions and elevation in median portion; punctation sparse and extremely fine, barely noticeable; pubescence short.
Elytra (Fig. 20) distinctly widened posteriorly and approximately as long as pronotum; suture gaping posteriorly; punctation moderately sparse and distinctly granulose; interstices with pronounced microreticulation. Hind wings present. Legs conspicuously long and slender; mesotiba weakly, metatibia more strongly curved; metatibia 1.4 mm long.
Abdomen (Fig. 21) wedge-shaped, distinctly tapering posteriad (lateral sternal processes not considered); sternite V postero-laterally with a conspicuous bifid process, those of sternites III and IV less pronounced (Fig. 22); sternites VI–VIII without such processes; tergites III–V impunctate; tergite VI with four setiferous punctures at posterior margin; integument without microsculpture; posterior 3/5 of tergite VII and tergite VIII with coarse and dense non-setiferous punctation; posterior margin of tergite VII with distinct palisade fringe; sternite VIII (Fig. 64) posteriorly with pair of lateral processes and pronounced median process.
♀: tergite VIII (Figs 62–63) posteriorly with several denticles; spermatheca small in relation to body size, shaped as in Fig. 65.

Comparative notes: As can be inferred particularly from the shape of sternite VIII, *O. triacuminatus* belongs to the *O. draco* group of the subgenus *Deroleptus*, which previously included two species from South China, *O. draco* Assing, 2010 and *O. multimpressus* Assing, 2015 (Assing 2016b). The new species is distinguished from them by smaller body size, paler coloration (particularly of the pronotum, the elytra, the abdomen, and the antennae), a different pattern of the impressions and elevations on the pronotum, and by less slender and shorter antennae. From *O. multimpressus*, with which it shares the similar shapes of the postero-lateral processes of sternites III–V, it additionally differs by the shape and much smaller size of the spermatheca and by less numerous denticles at the posterior margin of tergite VIII. For illustrations of *O. draco* and *O. multimpressus* see Assing (2010, 2015a).

Distribution: The type locality is situated in Northwest Thailand at an altitude of 1200 m.

3.2.3.2.2 *Orphnebius niger* group

Orphnebius (*Deroleptus*) *niger* (Cameron, 1939)

(Figs 66–70)

Material examined: **India**: 1 ♂, Assam, Bhalukpong, 27°02'N, 92°35'E, 150 m, 26.V.–3.VI.2006, leg. Pacholátko (BMNH).

Comment: *Orphnebius niger* was originally described from Assam and subsequently recorded also from Meghalaya, Northeast India (Assing 2016b). The previously unknown male sexual characters are illustrated in Figs 66–70.

Orphnebius (*Deroleptus*) *gracilis* spec. nov.

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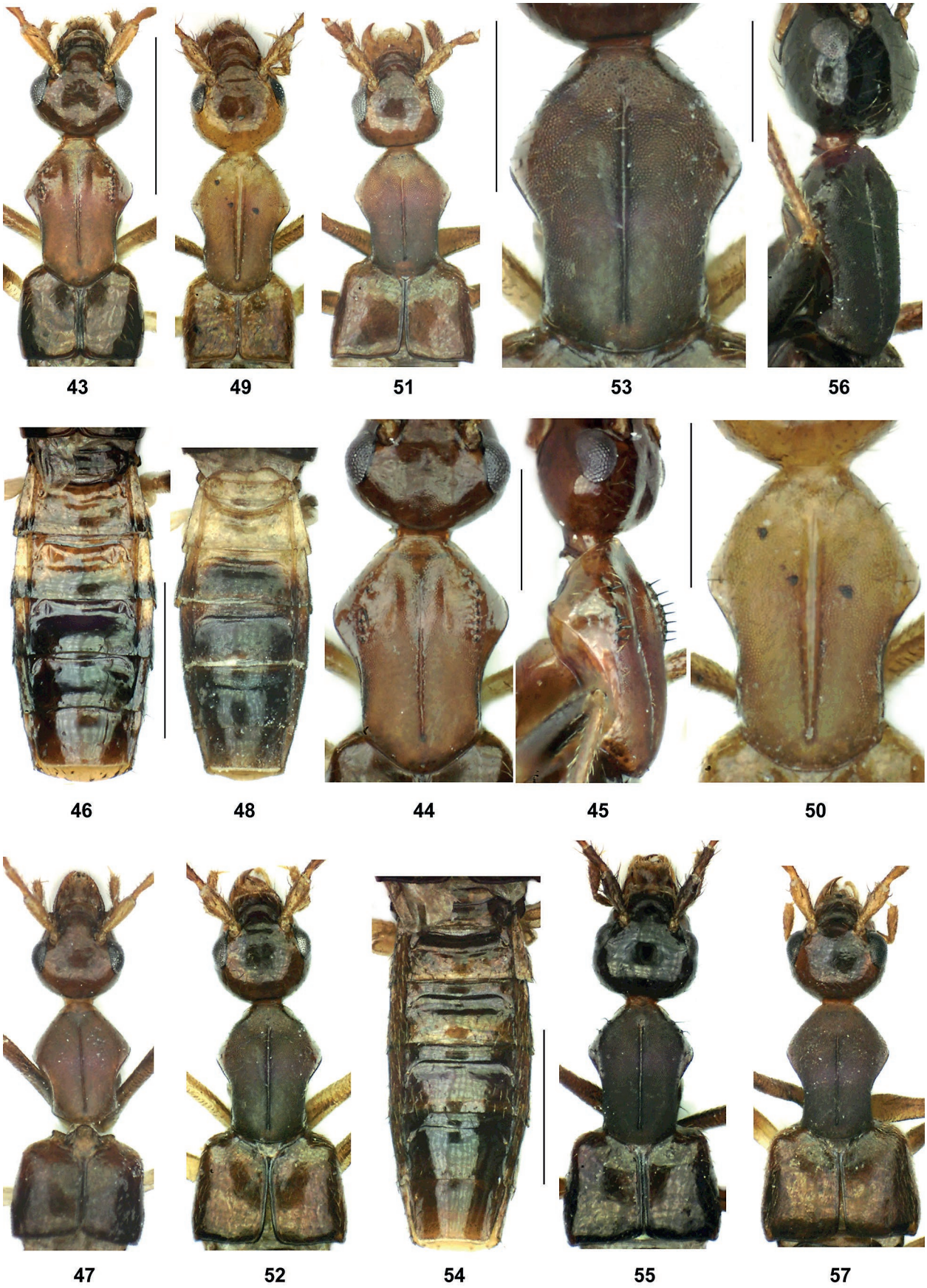
(Figs 2, 23–25, 71–74)

Type material: Holotype ♀: "INDIA 28 Madras, Palni H. 16 km E. de Kodaikanal, 1400 m. 15-XI-72, Besuchet Löbl Mussard / Holotypus ♀ *Orphnebius gracilis* sp. n., det. V. Assing 2016" (MHNG).

Etymology: The specific epithet (Latin, adjective: slender) alludes to the slender habitus and the pronounced resemblance to *O. gracilior* Assing, 2016.

Description: Body length 5.0 mm; length of forebody 2.0 mm. Coloration (Figs 2, 23–24): head and pronotum blackish-brown; elytra brown with the postero-lateral portion extensively, but indistinctly darker; abdomen dark-brown with tergites II–III, the posterior margins of tergites IV–VII, and part of the paratergites pale-brown; legs yellowish; antennae with antennomeres I–V reddish, VI–XI gradually becoming darker, and IX–XI dark-brown; maxillary palpi brown with the apical palpomere yellowish.
Head (Fig. 23) as long as broad, broadest across eyes, tapering behind eyes, posterior angles practically obsolete; punctation moderately dense, fine, and shallow; median dorsal portion impunctate; interstices without microsculpture. Eyes large and bulging, approximately as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna (Fig. 2) 1.6 mm long and slender; antennomeres IV approximately twice and long as broad, V–VI approximately 1.5 times as long as broad, VII weakly oblong, VIII approximately as broad as long, IX–X weakly transverse, and XI slightly longer than the combined length of IX and X.
Pronotum (Fig. 23) approximately as long as broad and slightly broader than head, antero-medially strongly concave; lateral margins weakly sinuate in posterior half; posterior angles moderately marked; margins finely carinate; disc with a median pair of larger punctures behind middle, otherwise extremely finely punctured.
Elytra (Fig. 23) 0.92 times as long as, and much broader than pronotum; punctation distinct, dense, and



Figs 43–57: *Amaurodera bicarinata* (**43–46**), *A. gilvicornis* (**47–48**), *A. latisulcata* (**49–50**), *A. brevipes* (**51**), *A. migritheca* (**52–54**), *A. longisetosa* (**55–56**), and *A. calicitheca* (**57**): forebody (**43, 47, 49, 51, 52, 55, 57**); pronotum in dorsal view (**44, 50, 53**); pronotum in dorso-lateral view (**45, 56**); abdomen (**46, 48, 54**). Scale bars: 43, 46–49, 51–52, 54–55, 57: 1.0 mm; 44–45, 50, 53, 56: 0.5 mm.

Figs 58–61: Forebody of *Drusilla smetanai*, holotype (**58**), *D. nepalensis*, male (**59**), *D. laticeps* (**60**), and *Witteia tensa* (**61**). Scale bars: 1.0 mm.

somewhat granulose, slightly denser anteriorly than posteriorly. Hind wings fully developed. Legs long and slender; mesotibia weakly, metatibia distinctly curved in apical half; metatibia 1.0 mm long; metatarsomere I approximately as long as the combined length of II and III.

Abdomen (Figs 24–25) broader than elytra, broadest at segment IV, gradually tapering posteriad; sternite III with an acute, oblique, and moderately long postero-lateral process on either side; tergite III unmodified; tergites III–VI each with a lateral setiferous puncture on either side; tergite VI without lateral keels; tergite VII anteriorly with eleven oblong impressions separated by narrow carinae, laterally with coarse non-setiferous punctation, postero-medially with a glossy area without punctation, but with indistinct median tubercle; tergite VIII (Fig. 71) of distinctive shape, posterior margin with two small close protuberances, antero-laterally with a cluster of moderately dense gland openings on either side, and laterally with a cluster of dense short setae on either side.

♂: unknown.

♀: sternite VIII (Figs 72–73) transverse, laterally with a few stout setae inserting in blunt processes, posterior margin strongly projecting in the middle and apically truncate; spermatheca small in relation to body size, 0.2 mm long and shaped as in Fig. 74.

Comparative notes: As can be inferred from the similarly slender habitus, similarly long and modified legs (metatibiae distinctly curved), similar head shape, and numerous other similarities, *O. gracilis* is closely allied to *O. gracilior* (Arunachal Pradesh) of the *O. niger* group, from which it differs by distinctly shorter and less slender antennae (*O. gracilior*: antennae 2.1 mm long and with more oblong antennomeres), shorter metatibiae (*O. gracilior*: metatibiae 1.3 mm long), a narrower head in relation to pronotum (*O. gracilior*: head at least as broad as pronotum), much coarser and denser punctation of the elytra, a broader abdomen (*O. gracilior*: abdomen narrower than elytra), an unmodified abdominal tergite III (with a postero-median process in *O. gracilior*), the absence of lateral keels on tergite VI, the modifications of tergite VII, a tergite VIII and a female sternite VIII of completely different shape, and by the shape of the spermatheca. For illustrations of *O. gracilior* see Assing (2016b).

Distribution and natural history: The type locality is situated in Madras, Tamil Nadu, Southeast India. The holotype was collected at an altitude of 1400 m.

Orphnebius (*Deroleptus*) *protuberatus* spec. nov.

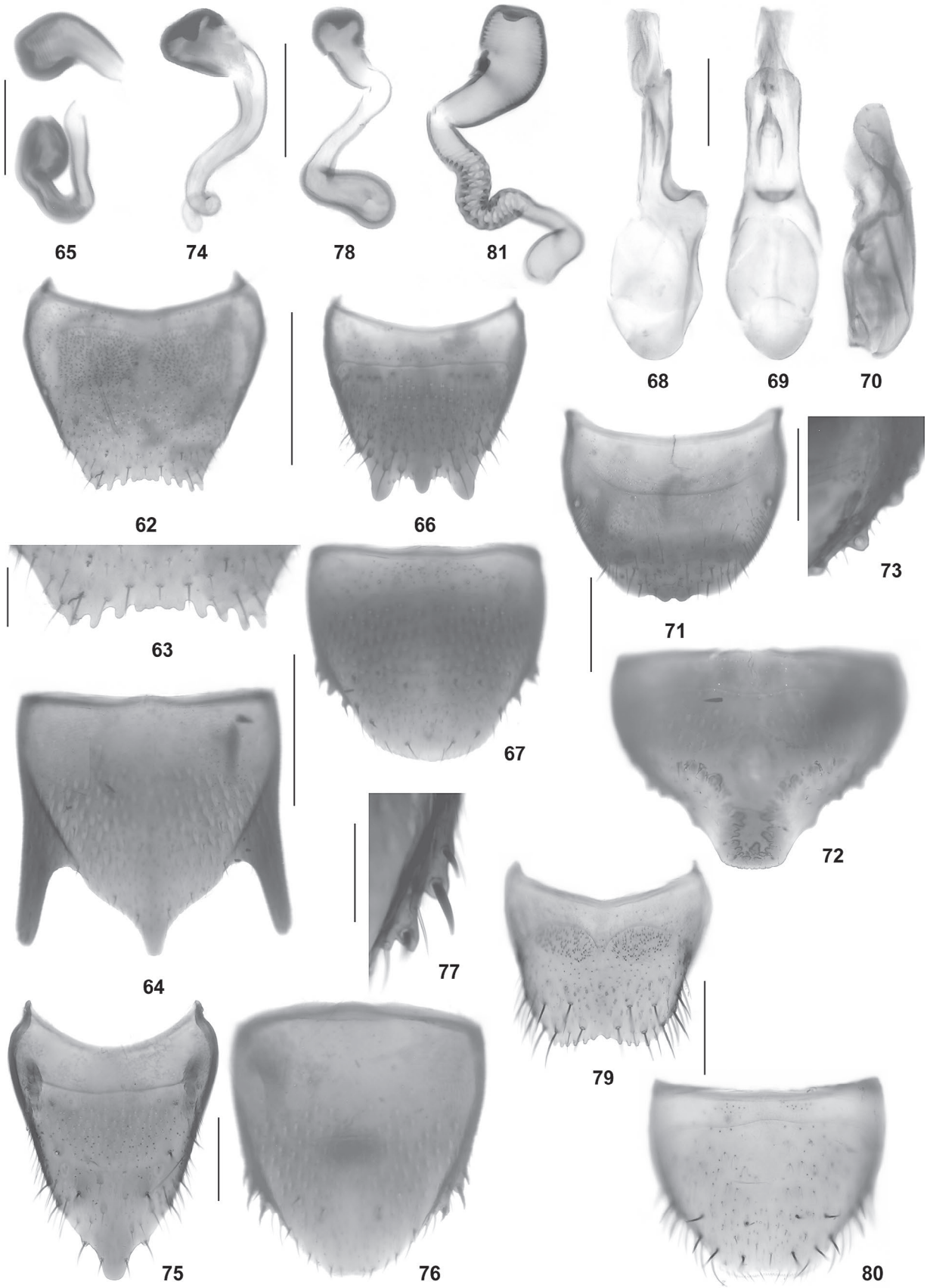
urn:lsid:zoobank.org:act:06A78E32-C968-43A9-97E1-7682FE870CB6

(Figs 3, 26–28, 75–78)

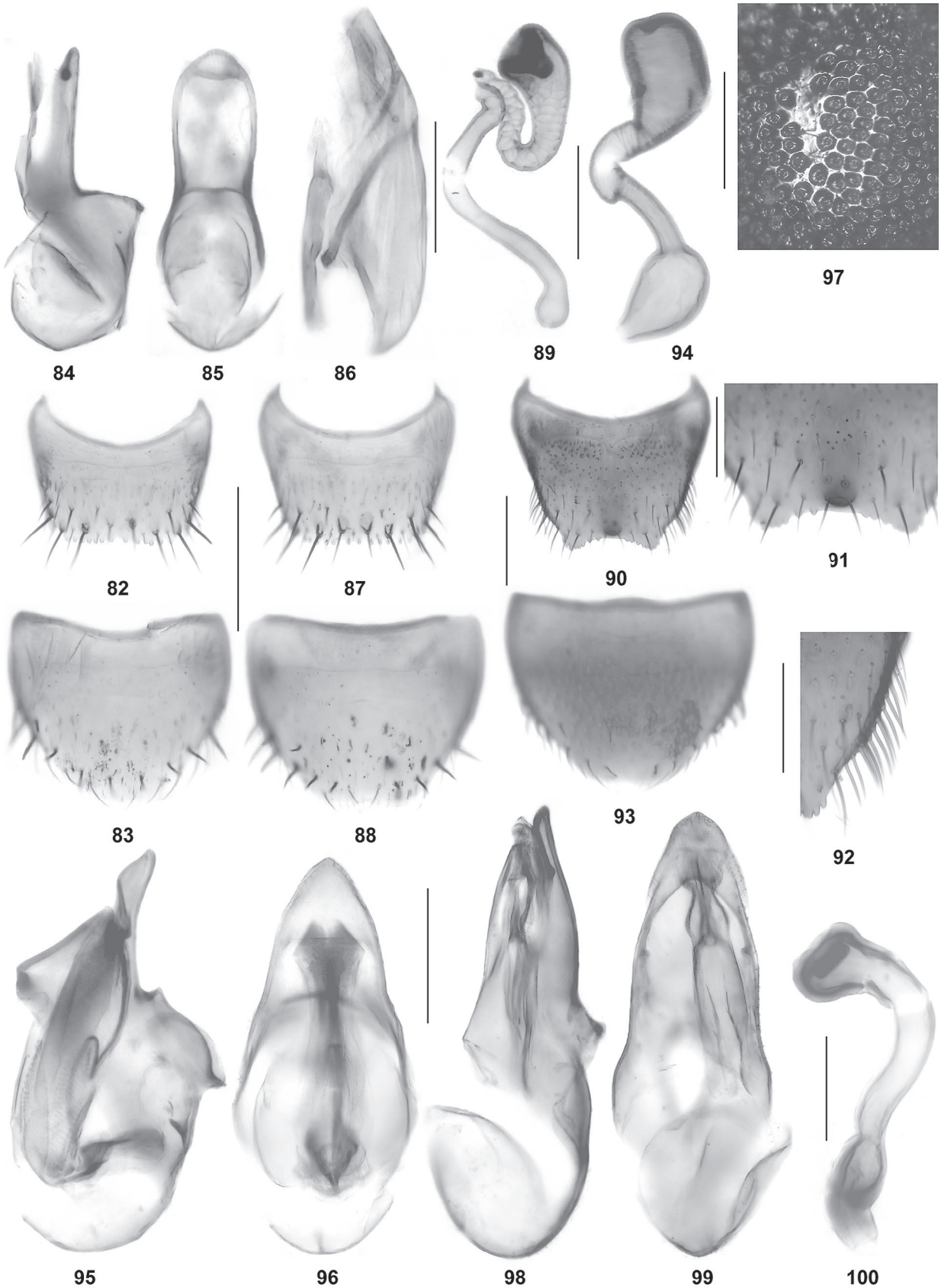
Type material: Holotype ♀: "INDIA No. 47 Kerala, Anaimalai Hills, 48 km. N.E. de Munnar, 700 m. 25-XI-72. Besuchet Löbl Mussard / Holotypus ♂ *Orphnebius protuberatus* sp. n., det. V. Assing 2016" (MHNG).

Etymology: The specific epithet is the past participle of the Latin verb protuberare (to swell, to stand out) and alludes to the pronounced postero-median process of the abdominal tergite VIII.

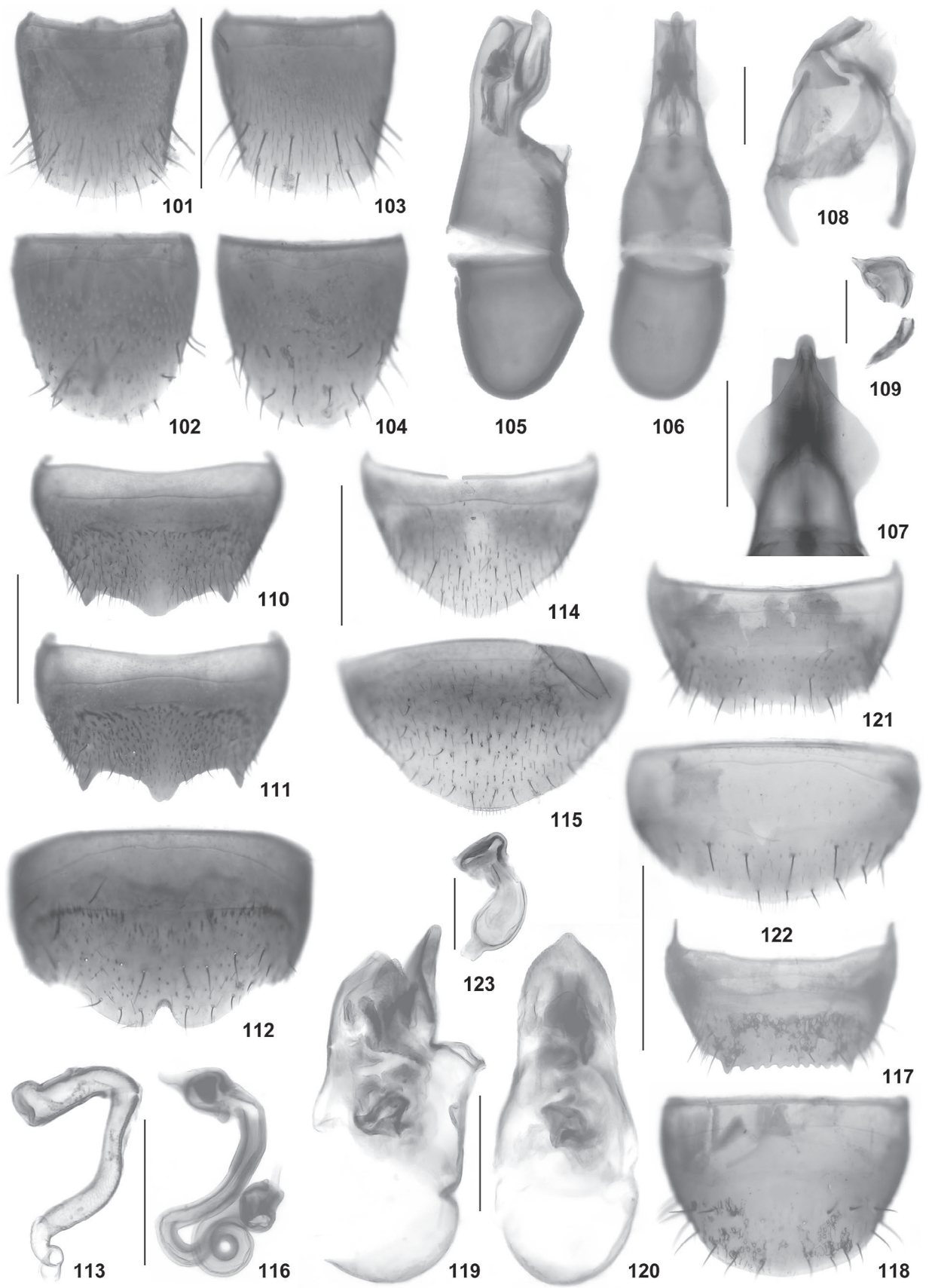
Description: Body length 4.7 mm; length of forebody 1.7 mm. Coloration (Figs 3, 26–27): head blackish; pronotum blackish-brown; elytra pale-brown with the postero-lateral portions extensively darker; abdomen dark-brown with tergite II and the posterior margins of tergites III–VII broadly paler; forelegs yellowish; mid- and hindlegs with dark-brown femora and pale-brown tibiae and tarsi; legs with antennomeres I–V pale-



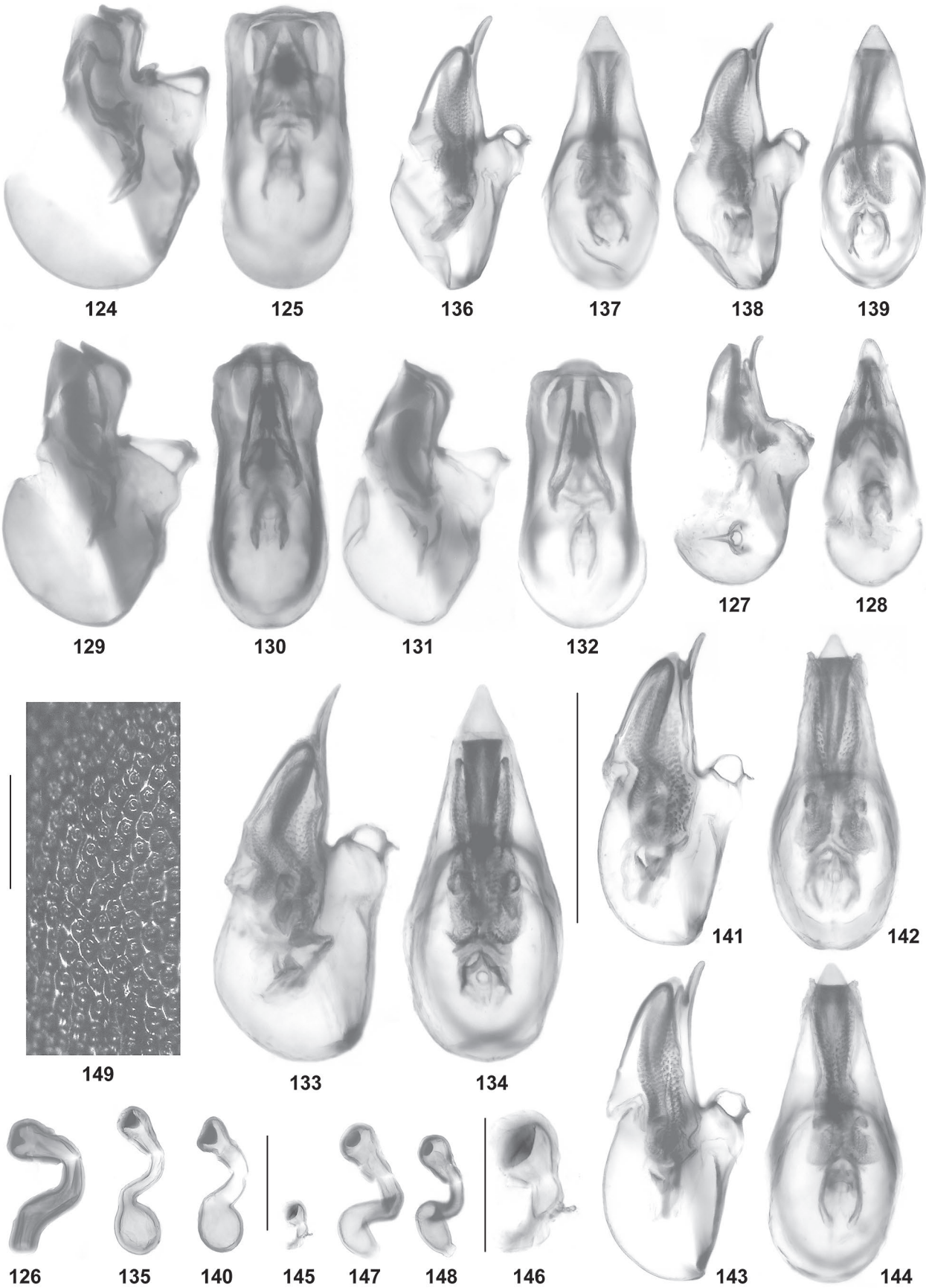
Figs 62–81: *Orphnebius triacuminatus* (**62–65**), *O. niger* (**66–70**), *O. gracilis* (**71–74**), *O. protuberatus* (**75–78**), and *O. pertortus* (79–81): female tergite VIII (**62, 71, 75, 79**); posterior margin of female tergite VIII (**63**); female sternite VIII (**64, 72, 76, 80**); spermatheca (**65, 74, 78, 81**); male tergite VIII (**66**); male sternite VIII (**67**); median lobe of aedeagus in lateral and in ventral view (**68–69**); paramere (**70**); medio-lateral portion of female sternite VIII (**73, 77**). Scale bars: 62, 64, 66–67: 0.5 mm; 68–72, 75–76, 79–80: 0.2 mm; 63, 65, 73–74, 77–78, 81: 0.1 mm.



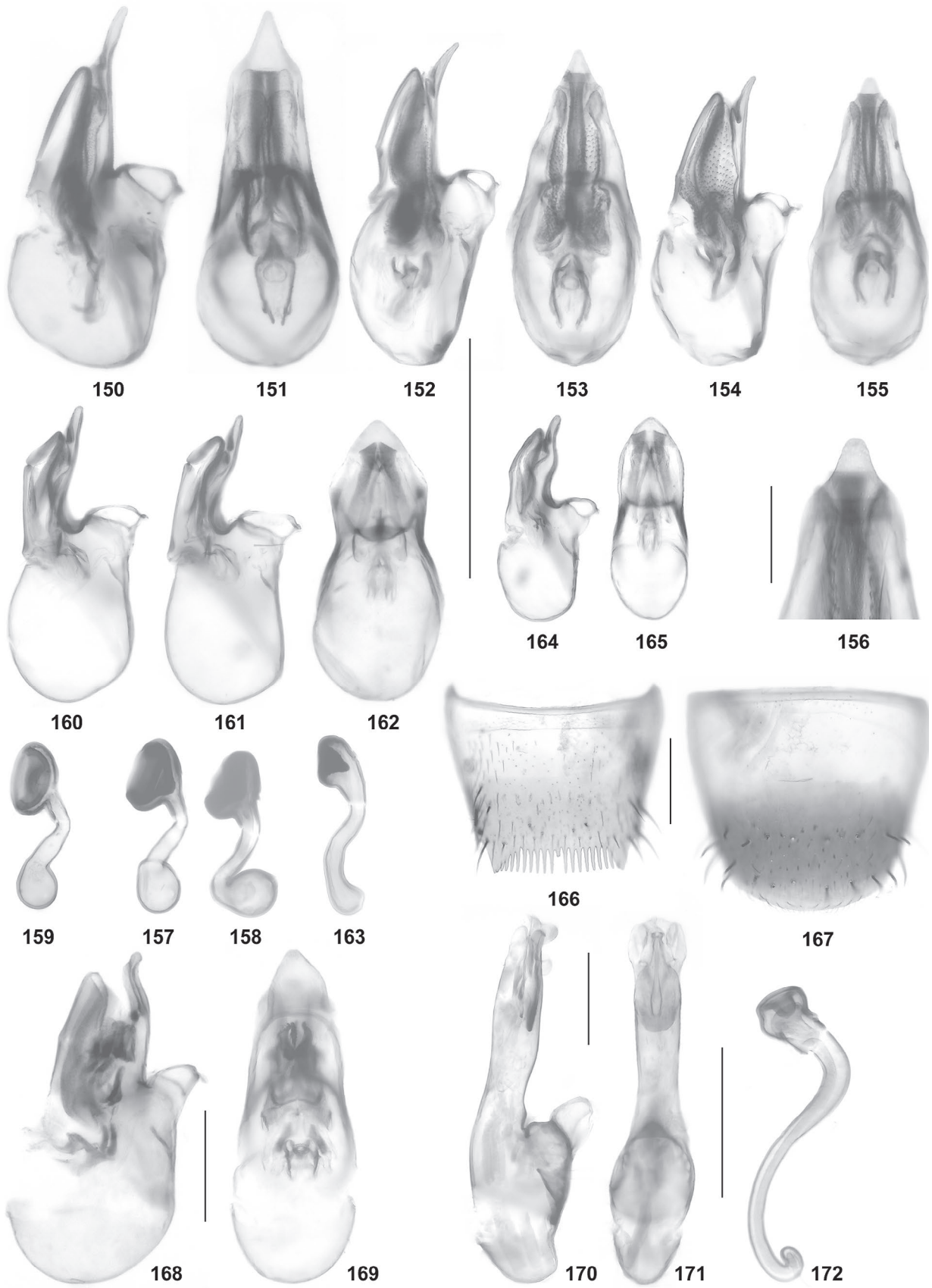
Figs 82–100: *Orphnebius migrus* (**82–89**), *O. reticulipennis* (**90–94**), *Tetrabothrus semiapterus* (**95–96**), *Zyrastilbus almorensis* (**97**), and *Pheidologitonetes setifer* (**98–100**): male tergite VIII (**82**); male sternite VIII (**83**); median lobe of aedeagus in lateral and in ventral view (**84–85, 95–96, 98–99**); paramere (**86**); female tergite VIII (**87, 90**); female sternite VIII (**88, 93**); spermatheca (**89, 94, 100**); posterior portion of female tergite VIII (**91**); postero-lateral portion of female tergite VIII (**92**); median dorsal portion of head (**97**). Scale bars: 82–83, 87–88, 90, 93, 95–96, 98–99: 0.2 mm; 84–86, 89, 91–92, 94, 97, 100: 0.1 mm.



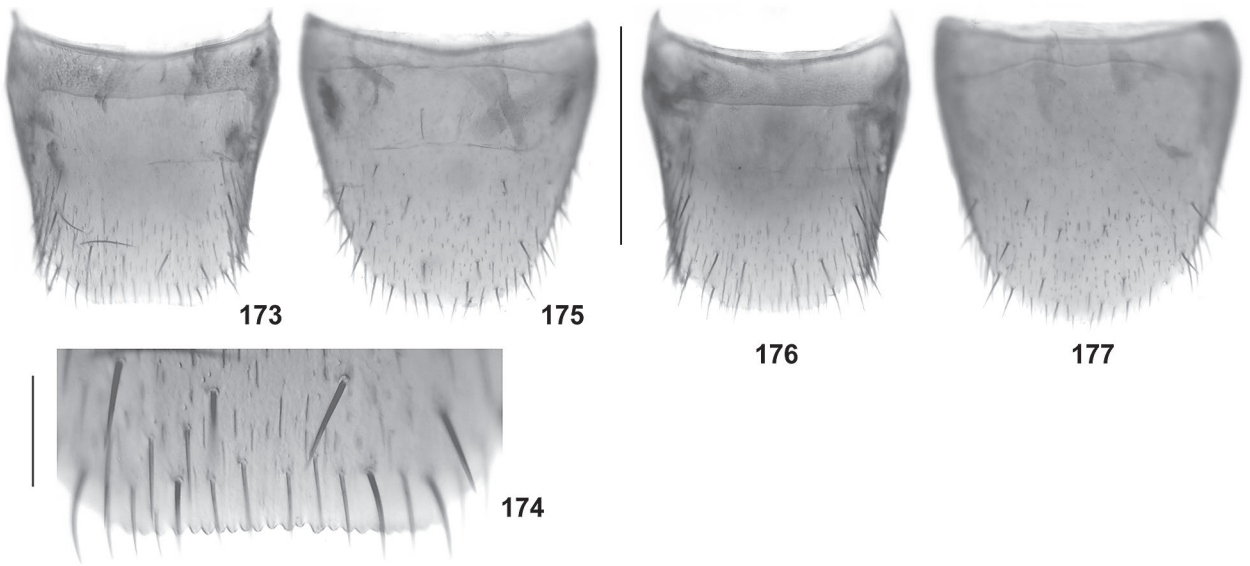
Figs 101–123: *Pheidologitonetes setifer* (**101–104**), *P. bursata* (**105–109**), *Drusilla obliqua* (**110–113**), *D. nepalensis* (**114–116**), and *D. lativentris* (**117–123**): male tergite VIII (**101, 117**); male sternite VIII (**102, 118**); female tergite VIII (**103, 110–111, 114, 121**); female sternite VIII (**104, 112, 115, 122**); median lobe of aedeagus in lateral and in ventral view (**105–106, 119–120**); apical portion of median lobe of aedeagus in ventral view (**107**); paramere (**108**); spermatheca (**109, 113, 116, 123**). Scale bars: 101–104, 110–112, 114–115, 117–122: 0.5 mm; 105–108, 113, 116, 119–120: 0.2 mm; 109, 123: 0.1 mm.



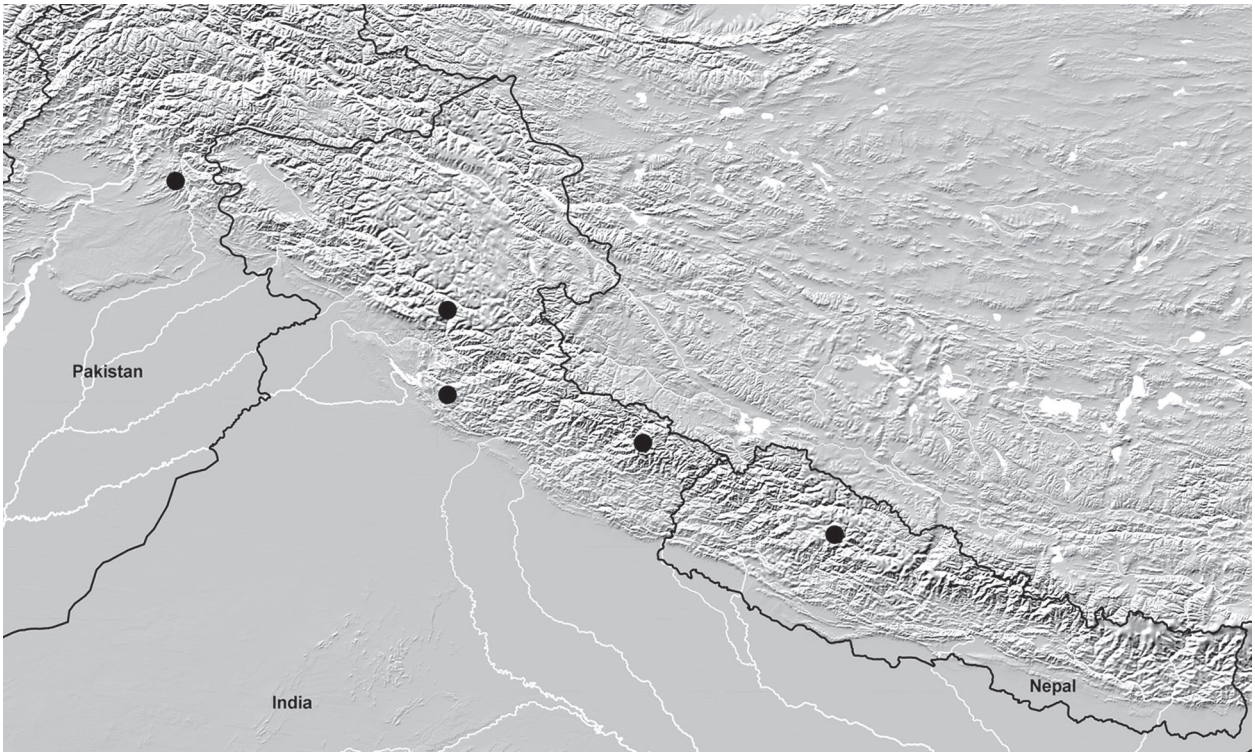
Figs 124–149: *Amaurodera schuelkei* from Assam (**124–126**), *A. gilvicornis* (**127–128**), *A. bicarinata* (**129–132**), *A. latisulcata* (**133–135**), *A. brevipes* (**136–140**), *A. migritheca* (**141–146**), *A. frondium* (**147–148**), and *Zyrastilbus almorensis* (**149**): median lobe of aedeagus in lateral and in ventral view (**124–125, 127–134, 136–139, 141–144**); spermatheca (**126, 135, 140, 145–148**); median portion of pronotum (**149**). Scale bars: 124–125, 127–134, 136–139, 141–144: 0.5 mm; 126, 135, 140, 145, 147–148: 0.2 mm; 146, 149: 0.1 mm.



Figs 150–172: *Amaurodera frondium* (**150–151**), *A calicitheca* (**152–158**), *A. discoidea*, paratype (**159**), *A. longisetosa* (**160–163**), *A. bulbosa* (paratypes of *A. discoidea* from Sabah) (**164–165**), *Rabdotodrusilla vara* (**166–169**), and *Witteia tensa* (**170–172**): median lobe of aedeagus in lateral and in ventral view (**150–155, 160–162, 164–165, 168–169, 170–171**); apical portion of median lobe in ventral view (**156**); spermatheca (**157–159, 163, 172**) ; male tergite VIII (**166**); male sternite VIII (**167**). Scale bars: 150–155, 157–165: 0.5 mm; 166–172: 0.2 mm; 156: 0.1 mm.



Figs 173–177: *Witteia tensa*: male tergite VIII (**173**); postero-median portion of male tergite VIII (**174**); male sternite VIII (**175**); female tergite VIII (**176**); female sternite VIII (**177**). Scale bars: 173, 175–177: 0.5 mm; 174: 0.1 mm.



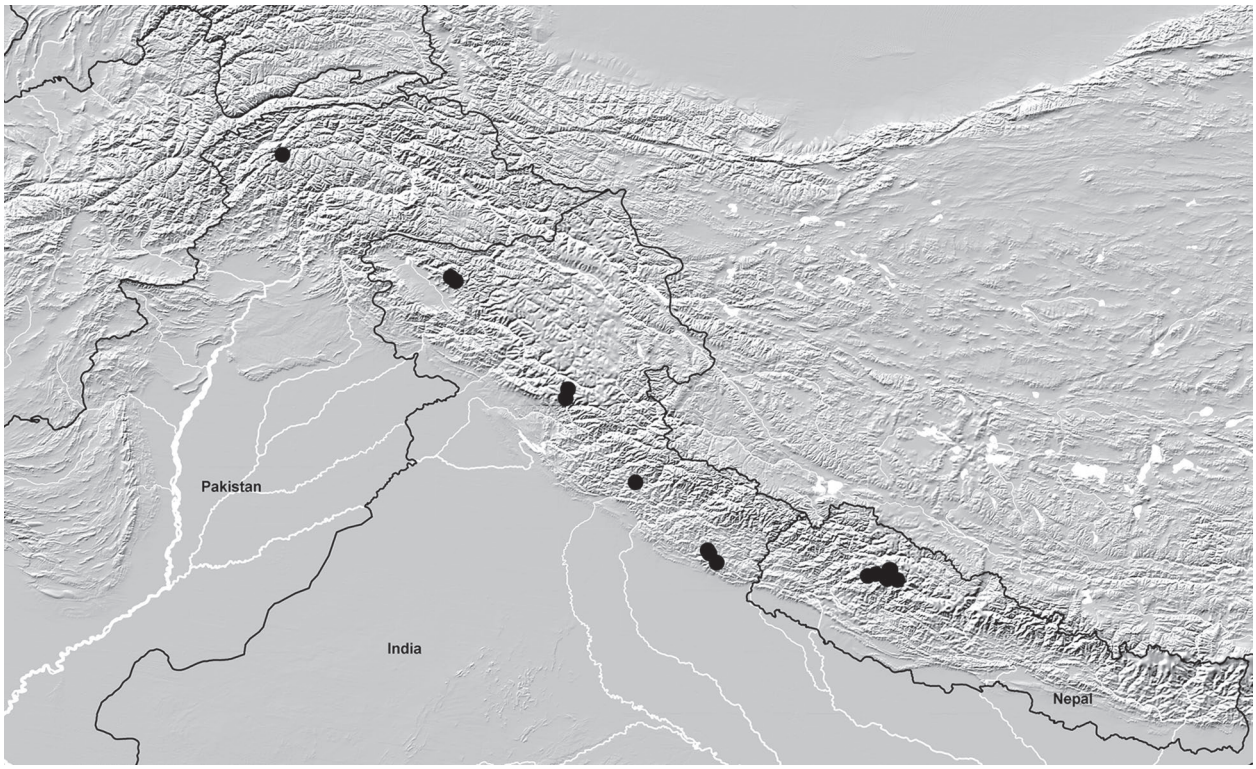
Map 1: Distribution of *Orphnebius hauseri* in the West Himalaya, based on revised records.

reddish, VI brown, and VII–XI dark-brown; maxillary palpi reddish-yellow with the terminal palpomere yellowish.

Head (Fig. 26) 1.25 times as broad as long, posterior angles convex, moderately marked; dorsal surface antero-laterally with moderately fine and moderately dense punctation, otherwise impunctate or with very sparse and fine punctation; interstices without microsculpture. Eyes large, occupying anterior two-thirds of lateral margins of head. Antenna (Fig. 3) short and distinctly incrassate, approximately 1.0 mm long; antennomeres IV weakly transverse, V distinctly transverse, VI–X approximately twice as broad as long and slightly asymmetric, and XI of oval shape and slightly longer than the combined length of IX and X.

Pronotum (Fig. 26) approximately 1.25 times as broad as long and 1.09 times as broad as head, moderately strongly convex in cross-section; lateral margins weakly convex in dorsal view; disc with a median pair of coarser punctures slightly behind middle; lateral margins each with four moderately long, thin, and erect setae; otherwise with few scattered short setae.

Elytra (Fig. 26) approximately 0.85 times as long as, and distinctly broader than pronotum; punctation very fine and sparse; pubescence long, depressed to sub-erect; interstices with oblique microsculpture best visible



Map 2: Distribution of *Orphnebius jumlaicus* in the West Himalaya, based on revised records.

in postero-lateral portions. Hind wings present. Legs moderately long and not particularly slender; metatibia 0.75 mm long; metatarsomere I nearly as long as the combined length of II–IV.

Abdomen (Figs 27–28) broader than elytra; sternites III–VIII each with a series of stout setae postero-laterally; tergites III–VII each with a lateral setiferous puncture on either side, otherwise impunctate; tergite IV antero-laterally with microsculpture; sternites III and IV each with distinct postero-lateral process on either side, those of sternite IV much more pronounced than those of sternite III; tergite VII with dense non-setiferous punctation except near anterior margin, posterior margin with palisade fringe; tergite VIII (Fig. 75) of highly distinctive shape, distinctly oblong, strongly tapering posteriad, posteriorly with pronounced process, lateral apices nearly completely reduced, across middle with moderately dense gland openings.

♂: unknown.

♀: posterior margin of sternite VIII (Figs 76–77) strongly convex, in the middle indistinctly concave, laterally with three stout setae inserting in distinct protuberances; spermatheca approximately 0.2 mm long and shaped as in Fig. 78.

Comparative notes: Based on the external and sexual characters, *O. protuberatus* belongs to the *O. niger* group (see Assing 2016b). Regarding the shape of the head and the forebody, this species somewhat resembles *O. siamensis* Cameron, 1946 (Thailand), from which it is readily distinguished by smaller body size, much shorter and more strongly incrassate antennae, and the pronounced postero-lateral processes of sternites III and IV alone. *Orphnebius protuberatus* differs from all its congeners particularly by the presence of stout spines on the lateral margins of sternites III–VIII, the distinctive shape of tergite VIII, and by the shape of the spermatheca. For illustrations of *O. siamensis* see Assing (2016b).

Distribution and natural history: The type locality is situated in Kerala province in Southwest India. The holotype was collected at an altitude of 700 m.

Orphnebius (*Deroleptus*) *discrepans* Assing, 2016

Material examined: **Thailand**: 2 ♂♂, Tak province, Umphang district, Song Bae Stream, Thung Yai Wildlife Sanctuary, 15°28'N, 98°48'E, 300 m, evergreen rain forest, 18–27.IV.1988, leg. Brendell (BMNH, cAss).

Comment: Previously, this species was represented only by the holotype from Yunnan, China (Assing 2016b). The above specimens represent the first record from Thailand.

Orphnebius (*Deroleptus*) *cultellatus* Assing, 2016

Material examined: **China**: 1 ♂ [teneral], 1 ♀, Yunnan, Xishuangbanna, 28 km NW Jinghong, An Ma Xi Zhan env., 22°12'N, 100°38'E, 700 m, forest, eclector, 30.X.2008, leg. Weigel (NME, cAss); 1 ex., Yunnan,

Xishuangbanna, 37 km NW Jinghong, Guo Men Shan env., 22°14'N, 100°36'E, 1080 m, Malaise trap, 8.VII.2008, leg. Meng (NME).
Thailand: 1♂, Chiang Dao District, Doi Chiang Dao Wildlife Sanctuary, 510 m, 23.XI.–22.XII.1990, leg. Schwendinger (MHNG). **Malaysia**: 1♀, Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou).

Comment: This recently described species had been recorded from several localities in Thailand and Laos (Assing 2016b). The above specimens from Yunnan and Sabah represent the first records from China and Borneo (Malaysia), respectively.

Orphnebius (*Deroleptus*) *baccillatus* Assing, 2016

Material examined: **Taiwan**: 1♀, Kaohsiung Hsien, Tengchih, 1610 m, 24.IV.1990, leg. Smetana [T20] (MHNG).

Comment: *Orphnebius baccillatus* was previously represented only by the holotype from Laos (Assing 2016b).

3.2.3.2.3 *Orphnebius siwalikensis* group

Orphnebius (*Deroleptus*) *pertortus* spec. nov.

urn:lsid:zoobank.org:act:D6784D78-D101-4BF6-B59F-78D0097BF255
(Figs 4, 29–31, 79–81)

Type material: Holotype ♀: "India W. Bengal, Darjeeling dist., Teesta 250 m. 10.X.78, Besuchet Löbl / Holotypus ♀ *Orphnebius pertortus* sp. n., det. V. Assing 2016" (MHNG).

Etymology: The specific epithet is the past participle of the Latin verb pertorquere (to twist) and alludes to the twisted proximal portion of the spermatheca.

Description: Body length 3.8 mm; length of forebody 1.6 mm. Coloration (Figs 4, 29–31): head dark-brown with the anterior portion dark-yellowish; pronotum dark-yellowish with pale-yellowish lateral margins; elytra yellowish with the postero-lateral portions slightly darker; abdomen yellowish with most of segments VI and VII slightly darker; legs yellowish; antennae dark-yellowish; maxillary palpi yellow.
Head (Fig. 31) flattened, strongly transverse, nearly 1.5 times as broad as long, and with moderately marked posterior angles; posterior margin not distinctly concave in the middle; dorsal surface with fine, shallow, and moderately sparse punctation, median dorsal portion impunctate; interstices without microsculpture. Eyes extremely large, occupying almost all of lateral margins of head nearly to posterior margin. Antenna (Fig. 4) 1.3 mm long, weakly incrassate; antennomeres IV approximately as long as broad, V–X weakly to moderately transverse and of gradually increasing width, X less than 1.5 times as broad as long, and XI approximately as long as the combined length of IX and X.
Pronotum (Fig. 31) small in relation to head, of trapezoid shape, and strongly transverse, broadest at anterior angles, 1.5 times as broad as long, and 0.87 times as broad as head, moderately convex in cross-section; lateral margins straight, distinctly converging posteriad in dorsal view; punctation extremely fine and moderately sparse; pubescence depressed, short, and pale; near anterior angles with a moderately long and erect dark seta on either side; midline broadly impunctate.
Elytra (Fig. 31) approximately 1.15 times as long as pronotum; anterior portion of suture with an indistinct elevation at some distance from apex of scutellum; punctation moderately sparse and fine, but much more distinct than that of pronotum; pubescence pale, depressed, much longer than that of pronotum. Hind wings present. Legs moderately long and slender; metatibia 0.85 mm long; metatarsus nearly as long as metatibia; metatarsomere I approximately as long as the combined length of II and III.
Abdomen (Figs 29–30) slightly narrower than elytra; sternites III and IV with large and short, on the whole rather indistinct postero-lateral extension of triangular shape on either side; tergites III–IV each with one, tergite V with two lateral setiferous punctures on either side, tergite VI with a lateral setiferous puncture on either side and with four setiferous punctures at posterior margin; tergite VII in posterior three-fourths with very dense and coarse non-setiferous punctation, near posterior margin with ten long dark setae, posterior margin with palisade fringe; tergite VIII (Fig. 79) with numerous setiferous granules in posterior portion, with a pair of clusters of gland openings anteriorly, posterior margin concave and serrate.
♀: sternite VIII (Fig. 80) transverse, postero-laterally with some stout dark setae on either side, posterior margin weakly concave, nearly concave and narrowly membranous in the middle; spermatheca (Fig. 81) 0.26 mm long, proximal portion of capsule of conspicuous shape, twisted.

Comparative notes: As can be inferred from the similar external characters, particularly the morphology of the head and pronotum, the similar chaetotaxy of the abdomen, as well as the shapes of tergite VIII and of the spermatheca, *O. pertortus* is closely allied to *O. tortus* Assing, 2016 (Meghalaya) of the *O. siwalikensis* group. It is distinguished from this species by distinctly smaller size (*O. tortus*: length of forebody 2.1 mm), much shorter antennae with distinctly transverse antennomeres V–X, shorter elytra with sparse punctation, the absence of pronounced postero-lateral extensions of the abdominal sternites III and IV, the shape of sternite VIII, and by the much shorter and differently shaped spermatheca. For illustrations of *O. tortus* see Assing (2016b).

Distribution and natural history: The type locality is situated in Darjeeling District, West Bengal, North India. The holotype was collected at an altitude of 250 m.

Orphnebius (*Deroleptus*) *migrus* spec. nov.

urn:lsid:zoobank.org:act:550FAFD7-3EA5-40E2-9E95-9203CB6C7505

(Figs 32–33, 82–89)

Type material: Holotype ♂: "INDIA: Meghalaya #2a, West Garo Hills dist., Trail Tura – Tura Peak, summit 650 m, 14.X.2004, 25°30'28"N, 90°13'54"E / Leg. G. Cuccodoro, C. Carlton, R. Leschen & D. Erne / Holotypus ♀ *Orphnebius migrus* sp. n., det. V. Assing 2016" (MHNG). Paratype ♀: same data as holotype (cAss).

Etymology: The specific epithet (Latin, adjective: minute) alludes to the conspicuously small body size of this species.

Description: Body length 1.7–2.4 mm; length of forebody 0.9–1.1 mm (female larger than male). Coloration (Figs 32–33): head dark-brown with the anterior portion paler; pronotum dark-yellowish to yellowish-brown; elytra yellowish with the postero-lateral portions darker; abdomen yellowish to yellowish-red; legs yellowish; antennae dark-yellowish; maxillary palpi yellow.

Head (Fig. 32) flattened, strongly transverse, nearly 1.5 times as broad as long, and with marked posterior angles (in postero-dorsal view); posterior margin concave in the middle; dorsal surface with fine, shallow, and sparse punctation, median dorsal portion impunctate; interstices without microsculpture. Eyes extremely large, strongly bulging, and with coarse ommatidia, occupying almost all of lateral margins of head nearly to posterior margin. Antenna (Fig. 32) 0.7–0.9 mm long, weakly incrassate; antennomeres IV–X transverse and of gradually increasing width, X approximately 1.5 times as broad as long, and XI approximately as long as the combined length of IX and X.

Pronotum (Fig. 32) of trapezoid shape and strongly transverse, broadest near anterior angles, approximately 1.6 times as broad as long, and 0.9 times as broad as head, moderately convex in cross-section; lateral margins straight, distinctly converging posteriad in dorsal view; punctation fine, but distinct, moderately sparse, and somewhat granulose; pubescence depressed, short, and pale; lateral margins with two long and erect setae on either side.

Elytra (Fig. 32) approximately 1.25 times as long as pronotum; punctation moderately sparse and granulose; pubescence pale, depressed, and short. Hind wings present. Legs relatively short; metatibia 0.4–0.5 mm long; metatarsus nearly as long as metatibia; metatarsomere I short, slightly longer than II, but distinctly shorter than the combined length of II and III.

Abdomen (Fig. 33) slightly narrower than elytra; sternite III weakly produced postero-laterally, other sternites unmodified; all sternites with long, stout, and erect setae laterally; tergites V and VI postero-laterally with a long and stout erect seta on either side; tergite VII with dense non-setiferous punctation except near anterior margin, middle of posterior margin with a pair of more or less distinct smooth tubercles, posterior margin with palisade fringe; tergite VIII (Figs 82, 87) strongly transverse and with several long black setae in posterior portion, posterior margin weakly concave and weakly serrate.

♂: sternite VIII (Fig. 83) transverse and with convex posterior margin; median lobe of aedeagus 0.24 mm long and shaped as in Figs 84–85; paramere (Fig. 86) 0.27 mm long, condylite much shorter than paramerite, apical lobe of paramerite obliquely truncate apically.

♀: sternite VIII (Fig. 88) transverse, middle of posterior margin concave; spermatheca (Fig. 89) with long and slender proximal portion.

Comparative notes: This species is readily distinguished from its consubgeners by its small size alone. In addition, it is characterized by the chaetotaxy of the abdominal sternites, the granulose punctation of the pronotum and elytra, the strongly transverse pronotum, the shape and chaetotaxy of the abdominal tergite VIII, and particularly by the primary sexual characters.

Distribution and natural history: The type locality is situated in Meghalaya, Northeast India. The specimens were collected at an altitude of 650 m.

Orphnebius (*Deroleptus*) *reticulipennis* spec. nov.

urn:lsid:zoobank.org:act:A4F9C29A-34F2-4B67-AD44-3CB3593B3D89

(Figs 5, 34–36, 90–94)

Type material: Holotype ♀: "JAVA: W Java, Cibodas, 50 km E Bogor, 1400 m, 3.–6.XI.1989, Agosti, Löbl, Burckhard #2a / Holotypus ♀ *Orphnebius reticulipennis* sp. n., det. V. Assing 2016" (MHNG).

Etymology: The specific epithet (Latin, adjective) alludes to the microreticulate elytra.

Description: Body length 4.2 mm; length of forebody 1.8 mm. Coloration (Figs 5, 34–35): head blackish; pronotum and elytra dark-brown; abdomen reddish-brown with segment VII slightly darker; legs yellowish-brown; antennae brown with antennomeres I–III reddish-yellow; maxillary palpi dark-yellowish with the terminal palpomere yellowish.

Head (Fig. 34) flattened, strongly transverse, approximately 1.4 times as broad as long, and with weakly marked posterior angles; posterior margin truncate, in the middle very weakly concave; dorsal surface with extremely fine and sparse punctation, median dorsal portion impunctate; interstices without microsculpture. Eyes extremely large and strongly bulging, occupying almost all of lateral

margins of head nearly to posterior margin. Antenna (Fig. 5) 1.6 mm long, not incrassate; antennomeres I–III elongate, IV weakly oblong, V approximately as long as broad, VI–X weakly transverse, X less than 1.5 times as broad as long, and XI approximately as long as the combined length of IX and X.
Pronotum (Fig. 34) of trapezoid shape and strongly transverse, broadest at anterior angles, approximately 1.45 times as broad as long, and 0.9 times as broad as head, moderately convex in cross-section; lateral margins straight, distinctly converging posteriad in dorsal view; punctation extremely fine and moderately sparse; pubescence sub-erect, pale, short, and very fine, barely noticeable; anterior angles each with a moderately long, erect, dark seta.
Elytra (Fig. 34) 1.25 times as long as pronotum; punctation moderately dense and moderately distinct, sparser posteriorly than anteriorly; interstices with distinct microreticulation; pubescence white, sub-erect, and moderately long, much more distinct than that of pronotum. Hind wings present. Legs moderately long and slender; metatibia approximately 1.0 mm long; metatarsomere I long, approximately as long as the combined length of the slender and long metatarsomeres II and III.
Abdomen (Figs 35–36) slightly broader than elytra; sternites III and IV moderately produced postero-laterally, sternite IV more so than sternite III; sternite V weakly produced postero-laterally; paratergites IV antero-laterally with an acute process on either side; tergites III–VI with a lateral setiferous puncture on either side; tergite VII with dense non-setiferous punctation in posterior three-fourths, posterior margin with palisade fringe; tergite VIII (Figs 90–92) transverse, anteriorly with two clusters of gland openings, posteriorly with a median tubercle with two long setae, and postero-laterally with numerous long setae, posterior margin rather strongly concave and finely serrate (except in the middle).
♀: sternite VIII (Fig. 93) transverse, middle of posterior margin truncate; spermatheca 0.29 mm long and shaped as in Fig. 94.

Comparative notes: *Orphnebius reticulipennis* is distinguished from all its congeners from the Oriental region by the shape of the spermatheca and by the shape and chaetotaxy of tergite VIII. Among the species with similarly large eyes and a strongly transverse pronotum, it is additionally characterized by the morphology of the antennae, and by the modifications of the anterior segments of the abdomen. It differs from the six *Orphnebius* species previously recorded from Java by the coloration and the habitus alone.

Distribution and natural history: The type locality is situated in West Java, Indonesia, at an altitude of 1400 m.

3.3 Genus *Tetrabothrus* Bernhauer, 1915

Tetrabothrus bicolor Cameron, 1939

Material examined: **India**: 1 ♂, Assam, North Cachar Hills District, road Haflong–Mahur, 25°09'N, 93°03'E, 550 m, 26.X.2004, leg. Cuccodoro et al. (MHNG).

Comment: The previously known distribution ranged from Burma to China and Vietnam (Assing 2016b). The above male represents the first record from India.

Tetrabothrus micropterus Pace, 1992

Material examined: **Nepal**: 1 ♂, 1 ♀, Khandbari District, Induwa Khola valley, 16.IV.1984, leg. Löbl & Smetana (MHNG, cAss).

Comment: This species had been recorded only from Central Nepal eastwards to the Kathmandu region (Assing 2006c). The above specimens represent the first record from East Nepal.

Tetrabothrus indicus Cameron, 1939

Material examined: **India**: 1 ex., West Bengal, Darjeeling district, Teesta, 250 m, 10.X.1978, leg. Besuchet & Löbl (MHNG); 1 ex., Kerala, Cardamon Hills, Thekkady near Periyar, 900 m, 7.XI.1972, leg. Besuchet, Löbl & Mussard (cAss).

Comment: This species had been recorded from North India and Sri Lanka (Assing 2006c, 2016b). The above specimen from Kerala represents the first record from South India.

Tetrabothrus nepalensis Pace, 1992

Material examined: **India**: 1 ♂, Meghalaya, Garo Hills, Tura, 700–900 m, 1.XI.1978, leg. Besuchet & Löbl (MHNG); 1 ♂, 1 ♀, Meghalaya, Garo Hills, Songsak, 400 m, 2.XI.1978, leg. Besuchet & Löbl (MHNG, cAss).

Comment: *Tetrabothrus nepalensis* was previously known only from Nepal (Assing 2006c, 2016b). The above specimens represent the first records from India.

Tetrabothrus semiapterus Pace, 2010

(Figs 95–96)

Material examined: **Taiwan**: 1 ♂, Nantou Hsien, Meifeng, 2130 m, 12.V.1991, leg. Smetana (cAss).

Comment: Prior to the above record, only the female holotype from Kaohsiung Hsien, Taiwan, had been known. The previously unknown aedeagus is illustrated in Figs 95–96.

Tetrabothrus inflexus Assing, 2015

Material examined: **China**: 1 ♂, Yunnan, Xishuangbanna, 20 km NW Jinghong, Man Dian, 22°08'N, 100°40'E, 740 m, rubber plantation, pitfall, 10.X.2008, leg. Weigel (NME).

Thailand: 3 exs., NE Bangkok, Khao Yai National Park, 750–850 m, 26.XI.–3.XII.1985, leg. Burckhard & Löbl (MHNG, cAss). **India**: 1 ♀ [identification doubtful], Assam, Manas, 200 m, 21.X.1978, leg. Besuchet & Löbl (MHNG); 1 ♀ [identification doubtful], Meghalaya, Ri Bhoi district, Umran, 25°46'N, 91°52'E, 700 m, 22.X.2004, leg. Cuccodoro et al. (MHNG); 1 ♀ [identification doubtful], Uttar Pradesh, Kumaon, Kathgodam near Haldwani, 6.X.1979, leg. Löbl (MHNG).

Comment: The distribution of *T. inflexus* ranges from Northeast India across South China to Thailand and Laos (Assing 2016b). The identification of the above specimens from North India is based on females and consequently tentative.

Tetrabothrus malaysianus Pace, 2013

Material examined: **Malaysia**: 1 ♂, 1 ♀, Sabah, Poring Hot Springs, 500 m, 6.V.1987, leg. Burckhard & Löbl (MHNG, cAss); 3 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: Originally described from Perak, Peninsular Malaysia, this species was subsequently also recorded from two localities in Borneo (Assing 2016b).

Tetrabothrus borneensis Cameron, 1943

Material examined: **Malaysia**: 3 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: This species is widespread and rather common in Borneo (Assing 2016b).

3.4 Genus *Zyrastilbus* Cameron, 1939

Comment: *Zyrastilbus* was described by Cameron (1939) to include only *Zyras almorensis* Cameron, 1939 from North India, the type species by monotypy. According to Hlaváč et al. (2011), *Zyrastilbus* has been treated as a distinct genus since Pace (2004), and two additional species have subsequently been assigned to this taxon: *Z. adesi* (Pace, 1998) and *Z. angkorensis* Pace, 2004. An examination of the type material of *Z. almorensis* and *Z. adesi*, as well as the details and illustrations provided in the original description of *Z. angkorensis* revealed that neither *Z. adesi* nor *Z. angkorensis* are congeneric with *Z. almorensis*; for arguments regarding the generic assignment of *Z. adesi* see the section on *Pheidologitonetes adesi*. As can be inferred from the description and the illustrations in Pace (2004), *Z. angkorensis* is distinguished from *Z. almorensis* by significant external and sexual characters, especially the completely different habitus (including the shapes of the head and the pronotum), a completely different antennal morphology, and a relatively large and voluminous spermatheca. The true generic assignment (*Drusilla*?) of *Z. angkorensis* is currently unknown and can be clarified only based on an examination of the type material.

Zyrastilbus almorensis (Cameron, 1939)

(Figs 6, 37–38, 97, 149)

Zyras (*Zyrastilbus*) *almorensis* Cameron, 1939: 546.

Type material examined: Syntypes: 1 ♀: "Kumaon, India., H.G. Champion, 1937-9. / W. Almora Divn, Kumaon U.P., Augt, 1917, HGC / *Z. almorensis* Cam. Type / Type / Lomechusini, *Zyras* (*Zyrastilbus*) *almorensis* Cam., P. Hlaváč det. 2005" (BMNH); 1 ♀: "W. Almora, Kumaon, India, H.G.C. / Genus ??, ohne mikroskop. Praeparat nicht zu bestimmen / *Z. almorensis* Cam. Cotype / M. Cameron. Bequest. B.M. 1955-147. / Syntype" (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "W. Almora : Kumaun" (Cameron 1939). The two type specimens found in the collections of the BMNH are both females.

Redescription: Body length 4.5–5.0 mm; length of forebody 2.1–2.2 mm. Coloration (Figs 6, 37–38): head, pronotum, and abdomen blackish; elytra blackish-brown; legs with blackish-brown femora and dark-yellowish to yellowish-brown tibiae and tarsi; antennae blackish brown with antennomeres II and the base of III slightly paler and with antennomere XI dark-yellowish to reddish; maxillary palpi dark-brown to blackish-brown with the apical palpomere pale-yellowish.

Head (Fig. 37) weakly transverse, broadest across or behind eyes; punctation rather coarse, extremely dense, and somewhat umbilicate, rendering dorsal surface matt, except for a narrow longitudinal glossy patch in the middle (Fig. 97). Eyes distinctly shorter than distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 6) approximately 1.6 mm long and massive; antennomeres III of distinctly conical shape and less than twice as long as broad, IV–X of gradually increasing width and increasingly transverse,

X approximately twice as broad as long, and XI slightly longer than the combined length of IX and X.
Pronotum (Fig. 37) approximately as long as broad and 1.17–1.18 times as broad as head, distinctly tapering posteriad; lateral margins straightly converging in posterior two-thirds in dorsal view; punctation (Fig. 149) very dense, rather coarse, but shallow, rendering dorsal surface matt, less coarse and less defined than that of head.
Elytra (Fig. 37) approximately 0.75 times as long as pronotum; punctation similar to that of pronotum. Hind wings present, but length not examined. Tarsi of moderate length; metatarsomere I slightly longer than the combined length of II and III.
Abdomen (Fig. 38) slightly broader than elytra; tergites III–V with moderately deep anterior impression; all tergites with similarly dense, moderately fine, distinct setiferous punctation on whole surface.
♀: posterior margins of tergite VIII and sternite VIII weakly concave in the middle; spermatheca similar to that of *Zyras* sensu strictu, i.e., with very long and thin proximal portion forming numerous coils.

Distribution: This species is currently known only from the type locality in Uttar Pradesh, North India.

3.5 Genus *Pheidologitonetes* Cameron, 1939

Comment: *Pheidologitonetes* was described by Cameron (1939) to include only *P. setifer* Cameron, 1939 from "Nilgiri Hills" (South India), the type species by monotypy. Cameron (1939) already observed an interesting character shared with species of *Orphnebius*, the extensive non-setiferous punctation on tergite VII. Two additional species, *P. nilgiriensis* and *P. bartolozzii*, were described by Pace (2001a), both from Nilgiri Hills, too. However, it can be inferred from external (pronotum with completely different sculpture and punctation; tergite VII without non-setiferous punctation) and the sexual characters (aedeagus of completely different morphology) that these species do not belong to *Pheidologitonetes*, but probably to *Drusilla*. On the other hand, *Drusilla franzi* Pace, 1992 from Nepal (Pace 1992) and above all *Zyras* (*Zyrastilbus*) *adesi* Pace, 1998 from Hong Kong (Pace 1998) probably belong to *Pheidologitonetes*, as is suggested by the similar external and sexual characters.
Based on the morphology of the aedeagus and on the modifications of the abdominal tergites VII and VIII, the genus is closely allied to *Orphnebius*.

Pheidologitonetes setifer Cameron, 1939

(Figs 98–104)

Pheidologitonetes setifer Cameron, 1939: 495.

Type material examined: Lectotype ♂, present designation: "Nilgiri Hills / *Pheidologitonetes setifer* Cam. Type / M. Cameron. Bequest. B.M. 1955-147. / Syntype / Lectotypus ♂ *Pheidologitonetes setifer* Cameron, desig. V. Assing 2016" (BMNH). Paralectotypes: 2 exs.: same data as lectotype (BMNH); 1 ♂, 1 ♀: same data, but "H. L. Andrewes, Nilgiri Hills" (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "Nilgiri Hills" found "In company with *Pheidologiton affinis*" (Cameron 1939). Five syntypes were located in the Cameron collection at the BMNH. The male labelled by Cameron as the "Type" is designated as the lectotype. For a detailed account of the external characters see the description by Cameron (1939). Tergite and sternite VIII, as well as the primary sexual characters are illustrated in Figs 98–104. Secondary sexual characters were not observed; even tergite and sternite VIII are of similar shapes and chaetotaxy in both sexes.

Pheidologitonetes adesi Pace, 1998, comb. nov.

Zyras (*Zyrastilbus*) *adesi* Pace, 1998: 978.

Type material examined: Paratypes: 7 exs. [all on one pin]: "Hong Kong, Tai Po, VII.1996, G. de Rougemont / *Zyras adesi* det. R. Pace 96" (cAss).

Additional material examined: **Hong Kong**: 5 exs., Hong Kong, X–XII.1996, leg. de Rougemont (cAss).

Comment: In the original description, which is based on 416 specimens collected in three localities in Hong Kong, Pace (1998) attributed this species to *Zyrastilbus*, at that time a subgenus of *Zyras* Stephens, 1835. An examination of the above types and non-type material confirmed my suspicion that this species clearly does not belong to *Zyrastilbus*, from which it is not only distinguished by numerous external characters (habitus; morphology of the antennae; punctation pattern of the abdomen), but also by the different morphology at least of the female genitalia (male of the type species of *Zyrastilbus* unknown). Instead, it is tentatively attributed to *Pheidologitonetes*, with which it shares a similar habitus and antennal morphology, the presence of non-setiferous punctation on the abdominal tergite VII, and a similar general morphology of the genitalia. On the other hand, it differs from *P. setifer* by rather different punctation of the pronotum (*P. setifer*: with normal fine punctation and glossy interstices; pronotal midline with fine furrow), by the presence of non-setiferous punctation also on tergite VIII (absent in *P. setifer*), by the shape of the posterior margin of tergite VIII (convex and not dentate in *P. setifer*), and by differences in the primary sexual characters.
Pheidologitonetes adesi is undoubtedly closely allied to *P. bursata*; for distinguishing characters see the following section.

Pheidologitonetes bursata spec. nov.

urn:lsid:zoobank.org:act:77C109C7-DED4-4297-95B4-519B7E085212

(Figs 7, 39–40, 105–109)

Type material: Holotype ♂: "India, Kerala, Periyar Sanctuary, Thekkady, 1000 m, moist broad-leaved forest, 2.–5.I.1997, leg. Schulz & Vock / Holotypus ♂ *Pheidologitonetes bursata* sp. n., det. V. Assing 2016" (cAss). Paratype ♀: "India, Goa, Canacona distr., Cortigao Sanctuary, 100 m, primary forest, 6.–10.I.1997, leg. Schulz & Vock" (cAss).

Etymology: The specific epithet is an adjective derived from the Latin noun bursa (bag, pouch) and alludes to the shape of the median lobe of the aedeagus.

Description: Body length 3.9–4.9 mm; length of forebody 1.7–2.1 mm. Coloration (Figs 7, 39–40): head dark-brown; pronotum reddish-brown; elytra reddish with the postero-lateral portion extensively darker; abdomen: tergite III yellowish; tergites IV–VI yellowish with a more or less extensive transverse infuscate band posteriorly; tergite VII dark-brown with the anterior margin yellowish; tergite VIII brown; antennae with the basal 4–5 antennomeres brown to dark-brown and antennomeres of the apical half gradually becoming paler, XI pale-brown to yellowish-brown; maxillary palpi yellowish, with the preapical palpomere brown.

Head (Fig. 39) strongly transverse, 1.25–1.30 times as broad as long, posteriorly tapering towards posterior constriction practically behind eyes, i.e., without appreciable posterior angles; punctation fine and rather dense; interstices with fine and shallow microreticulation. Eyes large and bulging, much longer than distance from posterior margin of eye to posterior constriction of head. Antenna (Fig. 7) 1.7–2.0 mm long; antennomeres IV–X of sub-cylindrical shape, of gradually decreasing length and decreasingly oblong, IV distinctly oblong, X weakly oblong or as long as broad.

Pronotum (Fig. 39) 1.08–1.17 times as broad as long and 1.02–1.09 times as broad as head; lateral margins distinctly sinuate in posterior two-thirds; dorsal surface with microsculpture composed of minute and extremely dense microgranules (somewhat resembling microsculpture of pronotum in *Amaurodera*) rendering the pronotum matt; antero-laterally with two long black setae, the anterior one near anterior angles and the posterior one at anterior third of pronotum.

Elytra (Fig. 39) 0.75–0.82 times as long as pronotum, suture gaping posteriorly; punctation fine and dense; interstices with shallow microreticulation. Hind wings fully developed. Legs slender; metatarsus very slender and nearly as long as metatibia; metatarsomere I nearly as long as the combined length of II–IV.

Abdomen (Fig. 40) narrower than elytra; tergites III–IV with, tergites V–VI without very shallow anterior impressions; tergites III–VI with a lateral and a postero-lateral long black seta on either side and with a pair of setiferous micropunctures in the middle of posterior margins, otherwise impunctate; tergite VII with dense and coarse sculpture composed of non-setiferous punctures posteriorly and somewhat confluent longitudinal impressions anteriorly (similar to sculpture of tergite VII in *Orphnebius* species), posterior margin with pronounced palisade fringe; tergite VIII with dense and coarse granules, these granules denser anteriorly than posteriorly, posterior margin broadly truncate and a transverse row of marginal granules rendering the posterior margin serrate.

♂: sternite VIII with broadly and weakly convex posterior margin; median lobe of aedeagus (Figs 105–106) 0.9 mm long, with long and voluminous basal portion (similar to the condition in the species of the *Orphnebius hauseri* group); ventral process short, with broad and pronounced semitransparent lateral extension in ventral view (Fig. 107); paramere (Fig. 108) small in relation to median lobe, 0.53 mm long, and of derived shape.

♀: sternite VIII with broadly convex posterior margin; spermatheca (Fig. 109) small and comma-shaped.

Intraspecific variation: The female paratype is distinguished from the holotype by distinctly smaller size and a relatively smaller pronotum. However, in other characters the specimens are highly similar, suggesting that they are conspecific and that the observed differences should be interpreted as intraspecific variation.

Comparative notes: Based on the similarly derived morphology of the aedeagus and of the spermatheca, *P. bursata* is closely allied to *P. adesi* from Hong Kong, but distinguished by the shape of the head (*P. adesi*: postocular region between posterior margin of eye and posterior angle of head approximately half as long as eye), a shorter and less massive antennomere I, much less pronounced microsculpture on the head, much finer sculpture on the pronotum, much more extensive non-setiferous punctation on tergite VII (*P. adesi*: non-setiferous punctation confined to posterior half), a more broadly truncate and much more finely serrate posterior margin of tergite VIII, and by the primary sexual characters. For illustrations of *P. adesi* see figures 264–267 in Pace (1998).

Distribution and natural history: The type specimens were collected in two localities in Kerala and Goa provinces, Southwest India, in a broad-leaved forest and a primary forest at altitudes of 1000 and 100 m, respectively.

3.6 Genus *Amaurodera* Fauvel, 1905

Comment: *Amaurodera* previously included 46 described species distributed in the Oriental and southern East Palaearctic region; for a revised and updated checklist see Assing (2016b). Including the newly described species, the genus is now represented by a total of 53 species distributed in the southern East Palaearctic and Oriental

regions from Nepal and North India to Sumatra, Borneo, and the Philippines.

Amaurodera soror Cameron, 1939

Material examined: **Nepal**: 1 ♂, 1 ♀, Bagmati, Kathmandu Valley, Bakuwapati, 1100 m, 1.VI.2004, leg. Kleeberg (cKle, cAss); 2 exs., Kaski, Bachhar Kharka NE Sikles, 28°23'N, 84°08'E, 2200-2400 m, 15.IX.2013, leg. Hagge & Schmidt (NME, cAss).
India: Madhya Pradesh: 2 ♂♂, 1 ♀, Mahadeo Hills, 2.5 km NW Pachmarhi, S Jamuna Prapat, 22°28'N, 78°24'E, 900 m, small waterfall, wet debris at base of moist cliff sifted, 17.X.2000, leg. Cuccodoro (MHNG, cAss); 1 ♂, 1 ♀, Mahadeo Hills, 4.5 km SW Pachmarhi, Vanshree Vihar, 22°27'N, 78°23'E, 950 m, flood debris sifted, 16.X.2000, leg. Cuccodoro (MHNG, cAss); 4 ♂♂, 3 ♀♀, Mahadeo Hills, 5.5 km SW Pachmarhi, Tridhara, 22°26'N, 78°23'E, 900 m, gallery forest, moist leaf litter on rocks sifted, 18.X.2000, leg. Cuccodoro (MHNG, cAss). **Uttar Pradesh**: 3 ♂♂, 2 ♀♀, Kumaon, Haldwani env., Kathgodam, 600 m, 5.X.1979, leg. Löbl (MHNG, cAss); 3 ♂♂, 1 ♀, Kumaon, Bhim Tal, 1450–1550 m, 5.X.1979, leg. Löbl (MHNG, cAss); 1 ♂, Kumaon, Chaubattia near Ranikhet, 1800 m, 12–13.X.1979, leg. Löbl (MHNG); 1 ♂, Kumaon, between Bhim Tal and Sat Tal, 1500 m, 7.X.1979, leg. Löbl (MHNG); 2 ♂♂, 3 ♀♀, Garhwal, 20 km S Chamba, 1150 m, 20.X.1979, leg. Lölb (MHNG, cAss); 1 ♂, 4 ♀♀, Garhwal, Chamoli env., 16 km from Karuaprayag, 900 m, 26.X,.1979, leg. Löbl (MHNG, cAss); 1 ♂, 1 ♀, Garhwal, between Tehni and Srinagar, 900 m, 25.X.1979, leg. Löbl (MHNG, cAss).

Comment: *Amaurodera soror* is one of the most widespread and common species in the Himalaya (Assing 2003, 2005, 2006a, 2016b).

Amaurodera elegans Cameron, 1939

Material examined: **India**: **Uttar Pradesh**: 8 ♂♂, 6 ♀♀, Kumaon, Chaubattia near Ranikhet, 1800 m, 12–13.X.1979, leg. Löbl (MHNG, cAss); 1 ♀, Garhwal, above Joshimath, 2100 m, 27.X.1979, leg. Löbl (MHNG).

Comment: Previously, only the type material from "Arni Gad. Mussoorie" was known (Assing 2003). The above specimens represent the first records since the original description.

Amaurodera silvana Pace, 1992

Material examined: **Nepal**: 3 exs., Dhaulagiri, Baglung Lekh, upper Tara Khola, 2600 m, 18.V.2004, leg. Kleeberg (cKle, cAss); 1 ex., Dhaulagiri, Baglung Lekh, 10–15 km NW Baglung, 2350–2550 m, 10.–12.V.2004, leg. Kleeberg (cKle); 3 exs., SW-Dhaulagiri, Maraini, 28°31'N, 83°16'E, 2400-2800 m, 11.V.2012, leg. Schmidt (NME, cAss); 23 exs., Kaski, E Seti Khola Valley, above Kabre, 28°22'N, 84°00'E, 2500 m, 9.IX.2013, leg. Hagge & Schmidt (NME, cAss).

Comment: The distribution of *A. silvana* is confined to the Dhaulagiri and Annapurna ranges (Assing 2003, 2005, 2006a, 2016b).

Amaurodera schuelkei Assing, 2009

(Figs 124–126)

Material examined: **India**: **Assam**: 4 ♂♂, 2 ♀♀, North Cachar Hills district, Mt. Borail, "Phamai" hunting camp, 25°06'N, 93°04'N, 1250 m, mixed broadleaved forest, litter sifted, 18.X.2005, leg. Cuccodoro & Marletta (MHNG, cAss); 3 ♂♂, 1 ♀ [teneral], North Cachar Hills district, Mt. Borail, "Phamai" hunting camp – Borail peak, 25°06'N, 93°04'N, 1350 m, mixed broadleaved forest, dry leaf litter with fungi and moss sifted, 18.X.2005, leg. Cuccodoro & Marletta (MHNG, cAss); 3 ♂♂, 2 ♀♀ [1 ♂ teneral], North Cachar Hills district, Mt. Borail, Borail peak – Notun Leikul, 25°07'N, 93°03'N, 1650 m, mixed broadleaved forest, moist leaf litter sifted, 20.X.2005, leg. Cuccodoro & Marletta (MHNG); 1 ♂, 1 ♀, North Cachar Hills district, Mt. Borail, Borail peak, 25°07'N, 93°03'N, 1700 m, mountain rain forest, bamboo litter sifted, 19.X.2005, leg. Cuccodoro & Marletta (cAss).

Comment: *Amaurodera schuelkei* was originally described based on two specimens from Northwest Yunnan (Assing 2009) and subsequently reported from additional localities in Yunnan (Yan & Li 2015a). The above specimens considerably expand the known distribution northwestwards and represent the first records from India and from outside Yunnan. The primary sexual characters of the material from Assam are illustrated in Figs 124–126.

Amaurodera bicarinata spec. nov.

urn:lsid:zoobank.org:act:6504024F-CF61-4071-A1BA-E11A73AE16B0

(Figs 9, 43–46, 129–132)

Type material: Holotype ♂: "INDIA: Meghalaya #12c, East Khasi Hills dist., Cherrapunjee, below Mawmluh, 1200 m, 24.x.2004, 25°14'59"N; 91°41'52"E / Leg. G. Cuccodoro, C. Carlton, R. Leschen & D. Erne / Holotypus ♂ *Amaurodera bicarinata* sp. n., det. V. Assing 2016" (MHNG). Paratype ♂: "INDIA Meghalaya, Khasi Hills 1000 m, Mawsynram–Balat, Besuchet-Löbl 27.X.78" (cAss).

Etymology: The specific epithet (Latin, adjective) alludes to the pair of carinae on the male pronotum.

Description: Body length 4.4–4.7 mm; length of forebody 2.1–2.2 mm. Other measurements: head width: 0.63–0.66 mm; length of pronotum: 0.87–0.95 mm; width of pronotum: 0.66–0.70 mm; elytral length at suture: 0.42–0.45 mm; elytral width: 0.80–0.83 mm. Coloration (Figs 9, 43, 46): head and elytra brown to dark-brown; pronotum dark-reddish to reddish-brown; abdomen: tergite II brown to dark-brown; tergites III–IV yellowish with broadly infuscate posterior margins (particularly the posterior portion of paratergites infuscate), tergite V dark-brown to blackish-brown with the anterolateral portions and the anterior portions of the paratergites yellowish, tergites VI–VIII blackish brown; legs brown to blackish-brown with the femoral bases extensively pale-yellowish and the tibial apices and the tarsi yellowish; antennae uniformly yellowish or with antennomeres III–VIII indistinctly darker; maxillary palpi yellowish to dark-yellowish with the terminal palpomere pale-yellowish.

Head (Fig. 43) approximately as broad as long, broadest across eyes; postero-lateral outline between eyes and posterior constriction weakly convex in dorsal view; median dorsal portion not impressed; median and anterior dorsal portions without punctation, lateral and posterior portions of dorsal surface with sparse and very fine punctures; posterior portion of dorsal surface with more or less pronounced, anterior portion with very shallow and indistinct microreticulation. Eyes strongly convex, approximately 0.7 times as long as distance from posterior margin of eye to posterior constriction. Antenna (Fig. 9) conspicuously elongate and very slender, 2.8–2.9 mm long; antennomeres IX and X 2.5 times and two times as long as broad, respectively.

Pronotum (Figs 44–45) evidently with distinct sexual dimorphism; dorsal surface opaque due to very dense microgranules; antero-median portion as opaque as the posterior portion or more glossy; midline with long and narrow sulcus reaching neither anterior nor posterior margins, this sulcus situated in more or less pronounced median impression in anterior two-thirds; antero-lateral portions with sparse short setae.

Elytra (Fig. 43) approximately 0.45 times as long as pronotum; punctation fine and very sparse; interstices with very shallow microreticulation visible only at high magnification. 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 (Fig. 46) broader than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with a lateral puncture on either side and with fine punctation only at and near posterior margins, otherwise impunctate; anterior tergites with more distinct, posterior tergites with very indistinct or without microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII truncate and serrate.

♂: pronotum antero-laterally with a carina on either side, these carinae each with seven stout erect setae, mediad of this carina with or without an edge approximately halfway between carina and median sulcus; median lobe of aedeagus (Figs 129–132) approximately 0.6 mm long; ventral process strongly bulging in lateral view, apically nearly truncate in ventral view; crista apicalis narrow in lateral view.

♀: unknown.

Comparative notes: As can be inferred from external characters (pronotum sexually dimorphic) and the morphology of the aedeagus (robust, with short, broad, and bulging ventral process), *A. bicarinata* belongs to the *A. bomfordi* group (see Assing 2003). The only other representatives with a similarly coloured abdomen are *A. elegans* and *A. schuelkei* (with which it also shares the anterior carinae with a row of setae on the male pronotum), from which *A. bicarinata* differs as follows:

from *A. elegans* by much smaller body size, more slender antennae, the presence of hind wings of reduced length (absent in *A. elegans*), completely different modifications of the male pronotum, and the different shape of the median lobe of the aedeagus;

from *A. schuelkei* by smaller body size, shorter antennae, different modifications of the male pronotum, and an aedeagus with a ventral process and a crista apicalis of slightly different shapes.

Distribution and natural history: The known distribution is confined to two localities in the Khasi Hills, Meghalaya, Northeast India. The specimens were collected at altitudes of 1000 and 1250 m.

Amaurodera cameroni Assing, 2003

Material examined: **India**: **Uttar Pradesh**: 1 ♂, 2 ♀♀, Kumaon, Haldwani env., Kathgodam, 600 m, 5.X.1979, leg. Löbl (MHNG, cAss). **Meghalaya**: 8 exs., West Garo Hills district, trail Tura to Tura peak, summit, 25°30'N, 90°14'E, 900 m, 15.X.2004, leg. Cuccodoro et al. (MHNG, cAss); 4 exs., Khasi Hills, Nongpoh, 700 m, 5.XI.1978, leg. Besuchet & Löbl (MHNG). **Assam**: 2 exs., North Cachar Hills district, road Umrangso–Gunjong, 900 m, 25°25'N, 92°49'N, 27.X.2004, leg. Cuccodoro et al. (MHNG).

Comment: Previously, only the type material from "Arni Gad. Mussoorie" was known (Assing 2003). The above specimens represent the first records since the original description.

Amaurodera angularis Assing, 2015

Material examined: India: Meghalaya: 3 exs., Khasi Hills, Nongpoh, 700 m, 5.XI.1978, leg. Besuchet & Löbl (MHNG). Assam: 3 exs., North Cachar Hills district, road Mahur–Maibang, 850 m, 25°12'N, 93°07'N, 26.X.2004, leg. Cuccodoro et al. (MHNG, cAss); 2 exs., North Cachar Hills district, Mt. Borail, trail Jatinga summit,

25°07'N, 93°02'N, 650 m, 28.X.2004, leg. Cuccodoro et al. (MHNG, cAss); 1 ex., North Cachar Hills district, Mt. Borail, trail Notun Leikul – Mt. Calvary, 25°08'N, 93°03'N, 1000 m, forest leaf litter sifted, 15.X.2005, leg. Cuccodoro et Marletta (MHNG, cAss).

Comment: The previously known distribution of *A. angularis* was confined to West Bengal (Assing 2015, 2016b). The above specimens represent the first records from Assam and Meghalaya. The species is distinguished from the similar sympatric and syntopic *A. cameroni* by less distinctly bicoloured legs, usually uniformly reddish segments III–lV (usually infuscate posteriorly or postero-laterally in *A. cameroni*), a distinct sexual dimorphism of the head (male head distinctly impressed), and primary sexual characters of different shapes.

Amaurodera kraepelini Fauvel, 1905

Material examined: **India**: **Meghalaya**: 2 exs., West Garo Hills district, trail Tura to Tura peak, summit, 25°30'N, 90°14'E, 650 m, 14.X.2004, leg. Cuccodoro et al. (MHNG, cAss); 1 ex., West Garo Hills district, trail Tura to Tura peak, summit, 25°30'N, 90°14'E, 800 m, 14.X.2004, leg. Cuccodoro et al. (MHNG). **Thailand**: 1 ex., Mae Hong Son district, Ban Maeo Microwave, 1250 m, 15.XII.1990, leg. Schwendinger (MHNG). **Indonesia**: 1 ♂ [identification uncertain], West Sumatra, Palopo Nat. Res., N Bukittinggi, 900 m, 18–20. XI.1989, leg. Löbl, Agosti & Burckhardt (MHNG).

Comment: The vast distribution of this species, which ranges from the Himalaya across South China to Java and Bali, is mapped in Assing (2016b). The above male from Sumatra is of paler coloration than specimens seen from other regions. On the other hand, no significant differences were observed in the shape of the aedeagus. Nevertheless, the identification should be considered tentative for the time being.

Amaurodera gilvicornis spec. nov.

urn:lsid:zoobank.org:act:8AD61DB5-D227-4158-93B3-0F902BFF8C8F

(Figs 10, 47–48, 127–128)

Type material: Holotype ♂: "Thailand; Phang Nga Prov., Tone Chong–Fah Waterfall, 20 km S Takuapa, 100–200 m, 11.–14.I.1996, leg. Schulz & Vock / Holotypus ♂ *Amaurodera gilvicornis* sp. n., det. V. Assing 2016" (cAss).

Etymology: The specific epithet (Latin, adjective) alludes to the uniformly yellow antennae.

Description: Body length 4.6 mm; length of forebody 2.3 mm. Other measurements: head width: 0.59 mm; length of pronotum: 0.77 mm; width of pronotum: 0.64 mm; elytral length at suture: 0.48 mm; elytral width: 0.83 mm. Coloration (Figs 10, 47–48): forebody reddish-brown, with the postero-lateral portions of the elytra indistinctly and diffusely darker; abdomen blackish with segments II–III and the anterior margin of segment IV pale-yellowish; legs: profemora and apical halves of meso- and metafemora dark-brown, basal halves of meso- and metafemora pale-yellowish, tibiae dark-brown with the apical portion dark-yellowish, tarsi dark-yellowish; antennae yellow; maxillary palpi dark-yellowish with the terminal palpomere pale-yellowish.

Head (Fig. 47) 1.05 times as broad as long, broadest across eyes; postero-lateral outline between eyes and posterior constriction broadly convex in dorsal view; median dorsal portion not impressed; median and anterior dorsal portions extensively without punctation, lateral and posterior portions of dorsal surface with few scattered punctures; interstices with distinct microreticulation, but glossy. Eyes strongly convex, approximately 0.7 times as long as distance from posterior margin of eye to posterior constriction. Antenna (Fig. 10) conspicuously elongate and very slender, 2.9 mm long; antennomeres IX and X 3 and 2.5 times as long as broad, respectively.

Pronotum (Fig. 47) 1.24 times as long as broad and 1.0 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 with few short setae.

Elytra (Fig. 47) approximately 0.6 times as long as pronotum; punctation fine and very sparse; interstices with distinct microreticulation. Hind wings present, but apparently of reduced length. Metatarsomere I as long as the combined length of II and III.

Abdomen (Fig. 48) narrower than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with fine punctation only at and near posterior margins, otherwise impunctate; tergite VIII with sparse setiferous punctation in posterior third; tergites III–V with distinct, VI–VII with very indistinct or obsolete microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII truncate and with eight tooth-like projections.

♂: posterior margin of sternite VIII broadly and weakly convex, in the middle nearly truncate; median lobe of aedeagus (Figs 127–128) 0.55 mm long; ventral process weakly curved apically (lateral view); crista apicalis narrow in lateral view.

♀: unknown.

Comparative notes: *Amaurodera gilvicornis* is readily distinguished from all other congeners previously recorded from Thailand by the relatively longer, more slender, and uniformly yellowish antennae and by the morphology of the aedeagus (crista apicalis narrower; ventral process of different shape), from most of them also by the coloration of the abdomen. It is additionally distinguished from *A. reticulata* Assing, 2016, the only other

species known from Thailand with distinct microreticulation on the elytra and together with which *A. gilvicornis* would key out in the key provided by Assing (2016b), by the absence of a median impression on the male head and by the coloration of the legs (*A. reticulata*: tibiae and profemora yellow; meso- and metatibiae only indistinctly bicoloured).

From the two *Amaurodera* species known from Peninsular Malaysia, the new species is distinguished as follows:

from *A. plena* Pace, 2003 by larger size, a dark abdominal apex (reddish-yellow in *A. plena*), bicoloured legs (reddish in *A. plena*), paler antennae, more distinct microreticulation on the head and elytra, and an aedeagus of different shape;

from *A. pahangensis* Pace, 2003 (male unknown) by larger size (*A. pahangensis*: 3.6 mm), darker coloration of the forebody, an extensively dark tergite IV (yellowish in *A. pahangensis*), and different coloration of the legs (*A. pahangensis*: tibiae yellow; profemur bicoloured).

For illustrations of *A. plena* and *A. pahangensis* see Pace (2003), for figures of the species previously recorded from Thailand see Assing (2016b).

Distribution and natural history: The type locality is situated in Khaolak-Lumru National Park (approximately 8°38'N, 98°18'E), South Thailand, Malay Peninsula. The holotype was collected at an altitude of 100–200 m.

Amaurodera varicollis Assing, 2016

Material examined: **Indonesia**: **Sumatra**: 3 exs., 5 km W Brastagi, Tongkoh, 1450 m, 3.XII.1989, leg. Löbl, Agosti & Burckhardt (MHNG, cAss).

Comment: The above specimens were collected together with the types.

Amaurodera latisulcata spec. nov.

urn:lsid:zoobank.org:act:FA0BB6D1-AA68-4368-8640-CC5B576FB393

(Figs 11, 49–50, 133–135)

Type material: Holotype ♂: "JAVA: W Java, Cibodas, 50 km E Bogor, 1400 m, 3–6.XI.1989, Agosti, Löbl, Burckhardt #2a / Holotypus ♂ *Amaurodera latisulcata* sp. n., det. V. Assing 2016" (MHNG). Paratypes: 6 exs.: same data as holotype (MHNG, cAss).

Etymology: The specific epithet (Latin, adjective) alludes to the conspicuously broad median sulcus of the pronotum.

Description: Body length 4.3–4.7 mm; length of forebody 2.1–2.2 mm. Other measurements: head width: 0.60–0.65 mm; length of pronotum: 0.88–0.95 mm; width of pronotum: 0.62–0.66 mm; elytral length at suture: 0.36–0.39 mm; elytral width: 0.70–0.77 mm.

Coloration (Figs 11, 49): forebody reddish; abdomen yellowish-red with segments VI–VII more or less distinctly darker; legs yellowish; antennae yellowish with antennomeres IV–VIII more or less distinctly darker; maxillary palpi dark-yellowish with the terminal palpomere pale-yellowish.

Head (Fig. 49) oblong, 1.05–1.10 times as long as broad, broadest behind eyes; postero-lateral outline between eyes and posterior constriction broadly convex in dorsal view; median dorsal portion not impressed; punctation sparse and very fine; interstices with very shallow microreticulation and glossy. Eyes small and weakly convex, approximately half as long as distance from posterior margin of eye to posterior constriction. Antenna (Fig. 11) long and slender, 2.3–2.6 mm long; antennomeres IX and X 2 and 1.5 times as long as broad, respectively.

Pronotum (Fig. 50) without sexual dimorphism; dorsal surface, except for the glossy median sulcus, with very dense microgranules and opaque, antero-median portion with reduced shine; midline with rather broad and deep median sulcus reaching neither anterior nor posterior margins; antero-lateral portions with numerous moderately short setae.

Elytra (Fig. 49) very short, approximately 0.4 times as long as pronotum; punctation fine and moderately dense; interstices with very shallow microreticulation. Hind wings reduced. Metatarsomere I slightly longer than the combined length of II and III.

Abdomen broader than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with sparse punctures on disc and at posterior margin; tergite VIII with sparse setiferous punctation in posterior third; all tergites with shallow microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII truncate to weakly convex and serrate.

♂: posterior margin of sternite VIII nearly truncate; median lobe of aedeagus (Figs 133–134) approximately 0.8 mm long; ventral process weakly curved and very acute apically (lateral view).

♀: spermatheca as in Fig. 135.

Comparative notes: The only other species previously recorded from Java are *A. kraepelini* and *A. nigra* Cameron, 1925 (possibly a synonym of *A. kraepelini*). *Amaurodera latisulcata* is readily distinguished from both of them by much paler coloration, much smaller eyes, a much broader and more glossy median sulcus of the pronotum, and shorter and narrower elytra. The similar shapes of the aedeagus and the spermatheca suggest that *A. latisulcata* is closely allied to the widespread *A. kraepelini*. The median lobe of *A. latisulcata*, however, is slightly larger and the ventral process is slightly broader (ventral view) apically more strongly curved (lateral view). The spermatheca has the median portion longer and more slender.

Distribution and natural history: The type locality is situated to the east of Bogor in West Java. The specimens were collected at an altitude of 1400 m.

Amaurodera brevipes spec. nov.

urn:lsid:zoobank.org:act:9EEEC874-0C9A-4809-A8F5-B44EA72217BF
(Figs 12, 51, 136–140)

Type material: Holotype ♂: "SUMATRA: W Sum. #21, Palopo Nat. Res. N Bukuttinggi, 900 m, 18–20.XI.1989, Löbl, Agosti, Burckhardt / Holotypus ♂ *Amaurodera brevipes* sp. n., det. V. Assing 2016" (MHNG). Paratypes: 4 exs.: same data as holotype (MHNG, cAss).

Etymology: The specific epithet (Latin, noun in apposition) alludes to the conspicuously short tarsi.

Description: Body length 3.9–4.7 mm; length of forebody 1.8–2.1 mm. Other measurements: head width: 0.53–0.58 mm; length of pronotum: 0.70–0.80 mm; width of pronotum: 0.53–0.61 mm; elytral length at suture: 0.40–0.48 mm; elytral width: 0.78–0.90 mm. Coloration (Figs 12, 51): forebody reddish-brown; abdomen reddish to reddish-brown with segment VI dark-brown; legs yellowish with the profemora and the apical portions of the meso- and metafemora brownish; antennae yellowish; maxillary palpi yellowish-brown with the terminal palpomere pale-yellowish.
Head (Fig. 51) approximately as long as broad or weakly oblong, broadest across eyes; postero-lateral outline between eyes and posterior constriction strongly convex (abruptly convex at posterior angles) in dorsal view; median dorsal portion not impressed; punctation moderately sparse and very fine; interstices without microreticulation and glossy. Eyes large and convex, nearly as long as distance from posterior margin of eye to posterior constriction. Antenna (Fig. 12) moderately long and moderately slender, 2.0–2.3 mm long; antennomere IX approximately 1.5 times as long as broad and antennomere X weakly oblong.
Pronotum (Fig. 51) moderately slender, 1.26–1.31 times as long as broad, without sexual dimorphism; dorsal surface, except for the glossy median sulcus, with very dense microgranules and opaque; midline with narrow median sulcus reaching neither anterior nor posterior margins; antero-lateral portions with sparse moderately short setae.
Elytra (Fig. 51) approximately 0.6 times as long as pronotum; punctation fine and moderately dense; microreticulation extremely shallow, practically obsolete, traces visible only at high magnification. Hind wings fully developed. Tarsi remarkably short, metatarsus 0.60–0.65 mm long and approximately 0.6 times as long as metatibia; metatarsomere I barely as long as the combined length of II and III.
Abdomen narrower than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with sparse punctures on disc (especially laterally) and at posterior margin; tergite VIII with sparse setiferous punctation in posterior third; tergites III–V with distinct microreticulation composed of transverse meshes; tergites VI–VII without, or with indistinct traces (especially anteriorly) of microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex and serrate.
♂: median lobe of aedeagus (Figs 136–139) approximately 0.6 mm long; ventral process weakly curved and very acute apically (lateral view).
♀: spermatheca as in Fig. 140.

Comparative notes: Aside from *A. kraepelini* and *A. nigra*, three species have been recorded from Sumatra: *A. varicollis*, *A. disparicollis*, and *A. spinans*. *Amaurodera brevipes* is distinguished from all of them by smaller body size, a less slender pronotum, shorter and less slender antennae, shorter legs with much shorter tarsi, and by the primary sexual characters, from all the species except *A. disparicollis* also by uniformly yellowish antennae. The similar shapes of the aedeagus and the spermatheca suggest that *A. brevipes*, too, is closely allied to *A. kraepelini*. The aedeagus of *A. brevipes*, however, is much smaller, and the ventral process is slightly broader (ventral view), apically less acute, and subapically more strongly curved (lateral view). For illustrations of *A. kraepelini*, *A. varicollis*, *A. disparicollis*, and *A. spinans* see Assing (2003, 2016b).

Distribution and natural history: The type locality is situated in West Sumatra, Indonesia. The specimens were collected at an altitude of 900 m.

Amaurodera migritheca spec. nov.

urn:lsid:zoobank.org:act:AAE44C1B-FD1A-49CF-B08B-C6F067F54F09
(Figs 13, 52–54, 141–146)

Type material: Holotype ♂: "SUMATRA: Jambi, Mt Kerinci, 1900 m, 13.XI.1989, Agosti, Löbl, Burckhardt / Holotypus ♂ *Amaurodera migritheca* sp. n., det. V. Assing 2016" (MHNG). Paratypes: 12 exs.: same data as holotype (MHNG, cAss); 1 ex.: "SUMATRA: Jambi Prov., Mt. Kerinci, footpath to summit, W of Kersik Tua 2160 m, 17–18.ii.2000 Sum00-13, P. Schwendinger" (MHNG).

Etymology: The specific epithet (noun in apposition) is composed of the Latin adjective migrus (minute) and the Greek noun theca. It alludes to the conspicuously small spermatheca.

Description: Body length 4.7–5.7 mm; length of forebody 2.2–2.6 mm. Other measurements: head width: 0.63–0.68 mm; length of pronotum: 0.85–0.99 mm; width of pronotum: 0.66–0.75 mm; elytral length at suture: 0.48–0.53 mm; elytral width: 0.90–1.07 mm. Coloration (Figs 13, 52, 54): forebody dark-brown with the elytra

often slightly paler; abdomen dark-brown to blackish-brown with the posterior margins of the segments dark-reddish to reddish-brown; legs yellowish with the apices of the meso- and metafemora often slightly darker; antennae dark-brown to blackish-brown with the basal 2–3 antennomeres and often also (the apex of) antennomere XI pale-brown; yellowish; maxillary palpi pale-brown to dark-brown with the terminal palpomere yellowish.

Head (Fig. 52) weakly oblong, 1.05–1.10 times as long as broad, broadest across eyes; postero-lateral outline between eyes and posterior constriction convex in dorsal view; median dorsal portion not impressed; punctation moderately sparse and very fine; interstices with very shallow, indistinct microreticulation and glossy. Eyes large and convex, approximately 0.7 times as long as distance from posterior margin of eye to posterior constriction. Antenna (Fig. 13) long and slender, 2.6–2.8 mm long; antennomere IX approximately twice as long as broad and antennomere X approximately 1.5 times as long as broad.

Pronotum (Fig. 53) moderately slender, approximately 1.3 times as long as broad, without sexual dimorphism; dorsal surface, except for the glossy median sulcus, with very dense microgranules and opaque, antero-median portion often with reduced shine; midline with narrow median sulcus reaching neither anterior nor posterior margins; antero-lateral portions with numerous moderately short setae.

Elytra (Fig. 52) 0.55–0.60 times as long as pronotum; punctation fine and moderately dense; microreticulation practically absent (indistinct traces may be visible at high magnification). Hind wings fully developed. Legs including tarsi long and slender; metatarsomere I barely as long as the combined length of II and III.

Abdomen (Fig. 54) narrower than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with sparse punctures on disc (especially laterally) and at posterior margin; tergite VIII with sparse setiferous punctation in posterior third; tergal surfaces with indistinct microsculpture visible only at high magnification (100 x); posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex and serrate.

♂: median lobe of aedeagus approximately (Figs 141–144) 0.68–0.72 mm long; ventral process weakly curved and acute apically (lateral view).

♀: spermatheca (Figs 145–146) minute, maximal extension 0.11 mm.

Comparative notes: *Amaurodera migritheca* is readily distinguished from other *Amaurodera* species recorded from Sumatra by the minute spermatheca. In external characters and in the shape of the aedeagus it is most similar to *A. spinans*, whose female sexual characters are unknown. It differs from this species by apically darker antennae (*A. spinans*: apical 2–3 antennomeres dark-yellowish), paler femora, and by the morphology of the aedeagus (*A. spinans*: ventral process basally more slender in ventral view and apically more acute; crista apicalis larger and of different shape). For illustrations of *A. spinans* see Assing (2016b).

Distribution and natural history:The known distribution is confined to two localities in Mt. Kerinci, West Sumatra, Indonesia. The specimens were collected at altitudes of 1900 and 2160 m.

Amaurodera intermedia Cameron, 1943

Material examined: **Malaysia**: 2 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: This species was previously known only from Sarawak (Borneo) (Assing 2016b).

Amaurodera amabilis Pace, 2008

Material examined: **Malaysia**: **Sabah**: 42 exs., Crocker Range, 1550–1650 m, 16.V.1987, leg. Burckhardt & Löbl (MHNG, cAss); 16 exs., Mt. Kinabalu, 1500 m, 30.IV.1987, leg. Burckhard (MHNG, cAss).

Comment: The distribution of *A. amabilis* is confined to Sabah, Borneo. The above specimens were collected together with the types (Crocker Range) or in the same locality (Mt. Kinabalu, 1500 m), but on a different date.

Amaurodera frondium Pace, 2008

(Figs 147–148, 150–151)

Material examined: **Malaysia**: **Sabah**: 7 exs., Poring Hot Springs, near Bat Cave, 600 m, 10.V.1987, leg. Burckhardt & Löbl (MHNG, cAss); 6 exs., Poring Hot Springs, 550–600 m, 9.V.1987, leg. Burckhardt & Löbl (MHNG, cAss); 1 ♀, Poring Hot Springs, 500 m, 6.V.1987, leg. Burckhardt & Löbl (MHNG).

Comment: The original description is based on four males from the environs of Poring Hot Springs and one female from Towai National Park, Sabah (Pace 2008a). The above specimens represent the first records since the original description. The primary sexual characters are illustrated in Figs 147–148, 150–151.

Amaurodera longisetosa spec. nov.

urn:lsid:zoobank.org:act:887533D9-985B-41FE-B3C8-F1FF8938DC8B

Figs 14, 55–56, 160–163)

Type material: Holotype ♂: "SABAH: Crocker Ra., 1350 m, km 60 Kota Kinabalu–Tambunan, 17.V.1987,

Burckhardt - Löbl / Holotypus ♂ *Amaurodera longisetosa* sp. n., det. V. Assing 2016" (MHNG). Paratypes: 8 exs.: "SABAH: Crocker Ra., 1270 m, km 60 rte Kota Kinabalu–Tambunan, 17.V.87, Burckhardt - Löbl" (MHNG, cAss); 1 ♀: "SABAH: Poring Hot Springs, 550–600 m, 9.V.1987, Burckhardt - Löbl" (MHNG); 1 ♀: "SABAH Danum Valley, B.R.L., f.i.t. 14–16.II.2007, G. de Rougemont" (cRou).

Etymology: The specific epithet (adjective) alludes to the long setae on the pronotum.

Description: Body length 4.4–5.5 mm; length of forebody 2.2–2.6 mm. Other measurements: head width: 0.60–0.78 mm; length of pronotum: 0.78–0.98 mm; width of pronotum: 0.58–0.71 mm; elytral length at suture: 0.48–0.58 mm; elytral width: 0.88–1.05 mm. Coloration (Figs 14, 55): head dark–brown to blackish; pronotum dark–brown to blackish-brown; elytra dark reddish to reddish-brown with the postero-lateral portions extensively darker; abdomen blackish-brown with the anterior segments usually slightly – or partly – paler; legs pale-brown, usually with the profemora and the apical halves of the meso- and metafemora, sometimes also the basal portions of the meso- and metatibiae, somewhat darker; antennae dark-brown to blackish-brown with the apical antennomeres more or less extensively yellow to dark-yellow; maxillary palpi brown to dark-brown with the terminal palpomere yellowish.
Head (Fig. 55) posteriorly nearly truncate and of very variable shape (see measurements), in larger specimens relatively larger and more transverse than in smaller specimens; postero-lateral outline between eyes and posterior constriction more or less strongly convex in dorsal view; median dorsal portion not impressed; punctation moderately sparse and fine; interstices with or without extremely shallow traces of microreticulation visible only at high magnification (100 x). Eyes moderately large and convex, 0.5–0.7 times as long as distance from posterior margin of eye to posterior constriction (relative size dependent on relative head size, smaller in large-headed than in small-headed specimens). Antenna (Fig. 14) long and slender, 2.3–2.7 mm long; antennomere IX approximately twice as long as broad and antennomere X approximately 1.5 times as long as broad.
Pronotum (Fig. 56) moderately slender, approximately 1.36 times as long as broad, without sexual dimorphism; dorsal surface with very dense microgranules and opaque; midline with narrow median sulcus reaching neither anterior nor posterior margins; lateral portions with 4–6 long, stout, and erect black setae on either side; antero-lateral portions additionally with some short setae.
Elytra (Fig. 55) approximately 0.6 times as long as pronotum; punctation extremely fine (barely noticeable even at high magnification) and moderately dense; microreticulation absent. Hind wings fully developed. Legs including tarsi long and slender; metatarsomere I shorter than the combined length of II and III.
Abdomen narrower than elytra; tergites III–V with moderately deep anterior impressions; tergites III–VII with sparse punctures on disc (especially laterally) and at posterior margin; tergal surfaces with nearly obsolete microreticulation visible only at high magnification (100 x); posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex and serrate.
♂: median lobe of aedeagus (Figs 160–162) approximately 0.6 mm long; ventral process of distinctive shape, basally broad, lateral margins angled in ventral view.
♀: spermatheca shaped as in Fig. 163.

Intraspecific variation: Body size, head shape, and relative head size are remarkably variable. Moreover, the spermatheca of the female from Poring Hot Springs differs by shorter length (0.30 mm) and the shape of the distal portion. However, since no additional differences were observed, this is attributed to intra- rather than interspecific variation.

Comparative notes: *Amaurodera longisetosa* is characterized particularly by the variability of the size and shape of the posteriorly truncate head, the chaetotaxy of the pronotum, and the primary sexual characters. Using the key to the *Amaurodera* species of Borneo in Pace (2008a), it would key out at couplet 4, together with *A. similis* Cameron, 1928 (Sarawak), from which it additionally differs by larger body size and darker coloration. Regarding the presence of long setae in the antero-lateral portions of the pronotum and the long proximal portion of the spermathecal capsule, *A. longisetosa* is similar to *A. amabilis*, from which it is distinguished by much longer and broader elytra, a posteriorly nearly truncate head, slightly larger and more bulging eyes, and a darker abdomen.

Distribution and natural history: The type specimens were collected in four close localities in Sabah at altitudes of 550–1350 m, in one locality together with *A. frondium*. One paratype was collected on the wing.

Amaurodera discoidea Pace, 2008

(Fig. 159)

Amaurodera discoidea Pace, 2008a: 121 f., partim.

Type material examined: Paratype ♀: "BORNEO, Brunei, Ficus, Temburong, Kuala Belalong, KBFSC, 16.IV.1995, leg. Borcherding / Paratypus *Amaurodera discoidea* m., det. R. Pace 1996 / *Amaurodera discoidea* sp. n., det. R. Pace 1996" (cAss). For additional paratypes see the section on *A. bulbosa* below.

Comment: The type material of *A. discoidea* is composed of a male holotype and a female paratype from Brunei and of four paratypes from "Sabah, Poring Hot Springs,

500 m" (Pace 2008a). A comparison of the type specimens from Brunei and from Sabah revealed that they are not conspecific. Those from Sabah belong to *A. bulbosa*. Thus, *A. discoidea* is currently known only from Brunei. The spermatheca of the paratype from Brunei is illustrated in Fig. 159.

Amaurodera bulbosa Pace, 2008

(Figs 164–165)

Amaurodera bulbosa Pace, 2008a: 119 f.
Amaurodera discoidea Pace, 2008a: 121 f., partim.

Type material examined: *A. bulbosa*: Holotype ♀: "♀ / SABAH: Poring Hot Springs, 500 m, 11.V.1987, Burckhardt - Löbl / Holotypus *Amaurodera bulbosa* mihi, det. R. Pace 2000 / *Amaurodera bulbosa* n. sp., det. R. Pace 2000" (MHNG). Paratype ♀: same data as holotype (MHNG).
A. discoidea: Paratypes: 2 ♂♂: "♂ / SABAH: Poring Hot Springs, 500 m, 13.V.1987, Burckhardt - Löbl / Paratypus *Amaurodera disoidea* mihi, det. R. Pace 2000 / *Amaurodera discoidea* n. sp., det. R. Pace 2000 / *Amaurodera bulbosa* Pace, det. V. Assing 2016" (MHNG, cAss); 1 ♂: same data, but "7.V.1987" (MHNG).

Comment: The original description of *A. bulbosa* is based on two females from "Sabah, Poring Host Springs, 500 m" (Pace 2008a). The male paratypes of *A. discoidea*, which were collected in the type locality of *A. bulbosa*, belong to this species, too.

Redescription: Body length 3.8–4.4 mm; length of forebody 1.9–2.2 mm. Other measurements: head width: 0.54–0.62 mm; length of pronotum: 0.78–0.85 mm; width of pronotum: 0.57–0.63 mm; elytral length at suture: 0.45–0.48 mm; elytral width: 0.80–0.85 mm. Coloration: head and pronotum reddish-brown to blackish-brown; elytra pale-reddish to reddish-brown with the postero-lateral portions more or less extensively, diffusely darker; abdomen with segments III–IV, or III–V, and VIII–X and the posterior portion of VII reddish to brown, and the remainder dark-brown to blackish-brown; legs yellowish; antennae pale-brown to brown with the basal three antennomeres yellowish-red and the apical antennomeres more or less extensively dark-yellowish; uniformly yellowish or with all or some of antennomeres IV–VIII darker; maxillary palpi yellowish-red with the terminal palpomere yellowish.
Head 1.08–1.14 times as long as broad; postero-lateral outline between eyes and posterior constriction convex in dorsal view; median dorsal portion not impressed; punctation sparse and vey fine; interstices without microreticulation. Eyes small, one-third to half as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna long and slender, 2.2–2.4 mm long; antennomere IX twice as long as broad and antennomere X more than 1.5 times as long as broad.
Pronotum slender, 1.44–1.48 times as long as broad, probably without sexual dimorphism; dorsal surface with very dense microgranules and opaque; midline with deep and narrow median sulcus reaching neither anterior nor posterior margins; antero-lateral portions with three long and rather stout setae on either side and with scattered very short and fine setae.
Elytra 0.56–0.58 times as long as pronotum; punctation extremely fine (barely noticeable even at high magnification) and moderately dense; microreticulation absent. Hind wings fully developed. Legs including tarsi long and slender; metatarsomere I approximately as long as the combined length of II and III.
Abdomen narrower than elytra; tergites III–V with moderately deep anterior impressions; punctation and pubescence very sparse; tergal surfaces without distinct microsculpture, indistinct shallow traces of microsculpture composed of transverse meshes may be visible only on anterior tergites at high magnification (100 x); posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex and serrate.
♂: median lobe of aedeagus (Figs 164–165) small, 0.38–0.44 mm long; ventral process short and sinuate in lateral view, broad and apically rounded in ventral view.
♀: spermatheca of similar shape as in *A. kraepelini*, with the proximal portion of the capsule distinctly dilated (see figure 27 in Pace 2008a).

Comparative notes: *Amaurodera bulbosa* differs from *A. discoidea*, with which it was confounded by Pace (2008a), by numerous characters, particularly much smaller eyes (*A. discoidea*: eyes large and strongly bulging, at least as long as postocular region from posterior margin of eye to posterior constriction of head), smaller body size (*A. discoidea*: body length 5.0 mm; length of forebody 2.4 mm; length of pronotum 0.90 mm), the chaetotaxy of the pronotum (antero-lateral portions with only two long setae on either side, these setae finer and shorter than in *A. bulbosa*, and with numerous short setae), uniformly yellowish legs (*A. discoidea*: meso- and metafemora apically infuscate), a less distinctly bicoloured abdomen, the morphology of the aedeagus, and the completely different shape of the spermatheca.

Distribution and natural history: This species is currently known only from the type locality in Sabah (altitude: 500 m). *Amaurodera frondium* and *A. calicitheca* were found in the same locality.

Amaurodera calicitheca spec. nov.

urn:lsid:zoobank.org:act:774965EE-4326-45C1-B89E-303A3B4AC04F
(Figs 15, 57, 153–158)

Type material: Holotype ♂: "SABAH: Poring Hot Springs, 500 m, 6.V.1987, Burckhardt - Löbl / Holotypus ♂ *Amaurodera calicitheca* sp. n., det. V. Assing 2016" (MHNG). Paratypes: 10 exs.: same data as holotype (MHNG, cAss);

3 ♂♂, 8 ♀♀: "SABAH Danum Valley, B.R.L., f.i.t. 14–16. II.2007, G. de Rougemont" (cRou, cAss).

Etymology: The specific epithet is a noun in apposition composed of the Latin noun calix (chalice, goblet) and the Greek noun theca. It alludes to the conspicuous shape of the distal portion of the spermatheca.

Description: Body length 4.3–5.3 mm; length of forebody 2.1–2.6 mm. Other measurements: head width: 0.60–0.69 mm; length of pronotum: 0.83–0.96 mm; width of pronotum: 0.60–0.70 mm; elytral length at suture: 0.48–0.54 mm; elytral width: 0.88–1.05 mm. Coloration (Figs 15, 57): head and pronotum reddish-brown to dark-brown; elytra pale reddish-brown with the postero-lateral portions slightly and diffusely darker; abdomen with segments III–IV or III–V reddish and the posterior segments dark-brown; legs yellowish with the apical halves of the meso- and metafemora slightly darker; antennae uniformly yellowish or with all or some of antennomeres IV–VIII darker; maxillary palpi yellowish-brown to pale-brown with the terminal palpomere yellowish.
Head (Fig. 57) weakly oblong or as long as broad; postero-lateral outline between eyes and posterior constriction broadly convex in dorsal view; median dorsal portion not impressed; punctation moderately sparse to moderately dense and very fine; interstices with or without extremely shallow traces of microreticulation visible only at high magnification (100 x). Eyes large and strongly convex, approximately 0.8 times as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna (Fig. 15) long and slender, 2.5–2.7 mm long; antennomere IX more than twice as long as broad and antennomere X nearly twice as long as broad.
Pronotum (Fig. 57) moderately slender, 1.32–1.36 times as long as broad, without sexual dimorphism; dorsal surface with very dense microgranules and opaque; midline with narrow median sulcus reaching neither anterior nor posterior margins; lateral portions without long setae; antero-lateral portions with short setae.
Elytra (Fig. 57) 0.60–0.65 times as long as pronotum; punctation extremely fine (barely noticeable even at high magnification) and moderately dense; microreticulation absent. Hind wings fully developed. Legs including tarsi long and slender; metatarsomere I approximately as long as the combined length of II and III.
Abdomen narrower than elytra; tergites III–V with moderately deep anterior impressions; punctation and pubescence rather dense on tergites III–VI, distinctly sparser on tergite VII; tergal surfaces with distinct microsculpture composed of strongly transverse meshes; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex and serrate.
♂: median lobe of aedeagus (Figs 152–156) of variable size, 0.62–0.75 mm long; ventral process apically more or less acute both in lateral and in ventral view.
♀: spermatheca shaped as in Figs 157–158; distal portion strongly enlarged and shaped like a chalice.

Intraspecific variation: The median lobe of the aedeagus is remarkably variable both in size (0.62–0.75 mm!) and shape. The ventral process may be abruptly convex or acute in ventral view; it is also of somewhat variable shape in lateral view.

Comparative notes and comment: Based on the shape of the spermatheca, *A. calicitheca* is closely allied to the similar *A. discoidea* Pace, 2008 (Brunei), from which it differs by slightly smaller and less bulging eyes (*A. discoidea*: eyes at least as long as postocular region from posterior margin of eye to posterior constriction of head in dorsal view), less dense short setae in the antero-lateral portions of the pronotum, the completely different shape of the median lobe of the aedeagus, and by the different shape of the distal cuticular invagination of the spermatheca. For illustrations of *A. discoidea* see Pace (2008a).

Distribution and natural history: The type locality is situated in Sabah at an altitude of 500 m. *Amaurodera frondium* and *A. bulbosa* were found in the same locality. The specimens from the second locality (altitude not indicated) were collected with a flight interception trap. Some of the beetles collected in February are slightly teneral.

Unnamed species

Amaurodera spec. nov. 1

Material examined: **Malaysia**: 1 ♀, Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou).

Comment: This probably undescribed species is characterized by dark coloration, a posteriorly nearly truncate head (similar to that of *A. longisetosa*), distinct microsculpture on the head and the elytra, and a spermatheca that could not be matched to any of the other species recorded from Borneo.

Amaurodera spec. nov. 2

Material examined: **Malaysia**: 3 ♀♀, Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: The above females are externally indistinguishable from *A. calicitheca*, but differ by the shape of the spermatheca.

3.7 Genus *Drusilla* Leach, 1819

Drusilla khamhengi Pace, 1986

Material examined: **Thailand**: 10 exs., Tak province, Umphang district, Song Bae Stream, Thung Yai Wildlife Sanctuary, 15°28'N, 98°48'E, 300 m, evergreen rain forest, 18–27.IV.1988, leg. Brendell (BMNH, cAss). **Laos**: 1 ♀, Vientiane Prov., 7.5 km N Houay Ileuth, near Nam Lik river, 18°37'N, 102°25'E, 23.–24.II.2014, leg. Cibulskis (cAss).

Comment: This species had been recorded only from Thailand (Assing 2016b). The above female from Laos is distinguished from previously examined material from Thailand by a spermatheca of slightly different shape and a posteriorly somewhat more produced tergite VIII, but otherwise no differences were found suggesting that the specimen should represent a distinct species.

Drusilla refugita Pace, 2000

Material examined: **Thailand**: 13 exs., Tak province, Umphang district, Song Bae Stream, Thung Yai Wildlife Sanctuary, 15°28'N, 98°48'E, 300 m, evergreen rain forest, 18–27.IV.1988, leg. Brendell (BMNH, cAss); 1 ex., Tak province, Umphang district, Mae Chan – Mae Klong confluence, Thung Yai Wildlife Sanctuary, 15°30'N, 98°48'E, 300 m, edge of Karen clearing, 27.IV.–6.V.1988, leg. Brendell (BMNH).

Comment: This species has been recorded only from Thailand (Hlaváč et al. 2011). The above material was probably collected with Malaise traps.

Drusilla cf. *perdensa* Pace, 2004

Material examined: **China**: **Yunnan**: 99 exs., Xishuangbanna, 20 km NW Jinghong, Man Dian, 22°08'N, 100°40'E, 720 m, ricefield fallow, pitfall, 6.VI.2008, leg. Weigel (NME, cAss); 45 exs., Xishuangbanna, 20 km NW Jinghong, Man Dian, 22°08'N, 100°40'E, 740 m, forest, pitfall, 23.V.2008, leg. Weigel (NME, cAss); 1 ex., same data, but 15.VI.2008 (cAss); 1 ex., Xishuangbanna, 37 km NW Jinghong, Guo Men Shan env., 22°14'N, 100°36'E, 1080 m, Malaise trap, 8.VII.2008, leg. Meng (NME); 1 ex., Xishuangbanna, 28 km NW Jinghong, An Ma Xi Zhan (NNNR), 22°12'N, 100°38'E, 700 m, Malaise trap, 8.VII.2008, leg. Meng (cAss).

Comment: This species was previously known only from the type locality in Thailand (Hlaváč et al. 2011). The spermatheca of the examined material is similar to that illustrated by Pace (2004) for *D. perdensa*. There are, however, slight differences in the shape of the median lobe of the aedeagus. Whether these differences are result of an artefact (aedeagus of male paratype deformed?) or attributable to interspecific variation requires clarification based on a revision of the type material.

Drusilla smetanai Pace, 1992

(Figs 16, 58)

Drusilla smetanai Pace, 1992: 134.

Type material examined: Holotype ♀: "NEPAL Khandbari District / below Sheduwa, 2100–2550 m, 9.IV.1982, A. & Z. Smetana / Holotypus *Drusilla smetanai* m., det. R. Pace 1988 / *Drusilla smetanai* sp. n., det. R. Pace 1988" (MHNG).

Comment: The original description of *D. smetanai* is based on a unique female from "Nepal, Khandbari distr., below Sheduwa, 2100–2350 m [sic]" (Pace 1992). The antenna and the forebody of the holotype are illustrated in Figs 16 and 58, respectively.

Drusilla obliqua Bernhauer, 1916

(Figs 110–113)

Astilbus obliquus Bernauer, 1916: 427.
Drusilla palata Assing, 2015b: 251 f.; **syn. n.**

Material examined: **Nepal**: 2 ♂♂, Kathmandu, Bhaktapur, 15.IX.2004, leg. Chaudary (cKle); 3 ♂♂, 4 ♀♀, same data, but 15.XI.2004 (cKle, cAss); 2 ♂♂, 1 ♀, Khandbari district, Khandbari, 1700 m, 23.III.1982, leg. Smetana (MHNG). **India**: 2 ♀♀, Assam, Bhalukpong, 27°02'N, 92°35'E, 150 m, 26.V.–3.VI.2006, leg. Pacholátko (BMNH, cAss). **China**: 1 ♀, Yunnan, Xishuangbanna, 37 km NW Jinghong, Guo Men Shan env., 22°14'N, 100°36'E, 1100 m, rice fallow, Malaise trap, 8.VII.2008, leg. Meng (NME).

Comment: *Drusilla obliqua* was originally described based on a unique male from "Birma: Carin, Asciuii Ghecu" (Bernhauer 1916) and subsequently recorded also from "India: Dehra Dun" by Cameron (1939) and from two localities in Central and East Nepal by Pace (1992). The original description of *D. palata* is based on three males from West Yunnan (China) (Assing 2015b). A comparison of the above specimens from Nepal with the type material of *D. palata* and with the descriptions provided by Bernhauer (1916) and Cameron (1939) leaves little doubt that the type material of *D. palata* is conspecific with that of *D. obliqua*.
While only males were available to Bernhauer (1916) and Cameron (1939), as can be inferred from their respective descriptions, Pace (1992) also listed a female, but neither described nor figured it. The female sexual characters are as follows:
Pronotum with a sharp median furrow, but without extensive impression; tergite VIII (Figs 110–111) strongly

transverse, posterior margin laterally with a pronounced tooth-like projection on either side and in the middle with a more or less triangular or convex process of variable shape; sternite VIII (Fig. 112) strongly transverse, posterior margin convexly produced and in the middle with conspicuous excision; spermatheca with slender capsule shaped as in Fig. 113.
For a description and illustrations of the male sexual characters see Assing (2015b).
The currently known distribution of *D. obliqua* ranges from Uttarakhand and Nepal across Burma to the Chinese province Yunnan.

Drusilla nepalensis Pace, 1992

(Figs 17, 59, 114–116)

Drusilla nepalensis Pace, 1992: 134.

Material examined: **Nepal**: 1 ♀, Dhaulagiri, Parbat region, Kali Gandaki valley, 1100 m, 23.V.2004, leg. Kleeberg (cAss); 2 ♀♀, Kenja [27°35'N, 86°25'E] env., Likhu Khola, 28.IV.1993, leg. Kleeberg (cKle).

Comment: The original description of *D. nepalensis* is based on a unique female from "Nepal, Bakhri Kharka" (Pace 1992).

Redescription: Body length 6.2–6.7 mm; length of forebody 2.8–2.9 mm. Coloration (Figs 17, 59): head and pronotum blackish-brown to blackish; elytra dark-yellowish with the scutellar region and the postero-lateral angles diffusely infuscate; scutellum black; abdomen blackish-brown, with the posterior margins of the segments reddish; legs yellowish; antennae dark-brown, with antennomere I pale-brown and antennomere II pale-reddish; maxillary palpi yellowish.
Head (Fig. 59) transverse, approximately 1.2 times as broad as long, broadest across eyes; postero-lateral outline between eyes and posterior constriction convex in dorsal view; dorsal surface with dense and fine punctation. Eyes large and moderately convex, longer than distance from posterior margin of eye to posterior constriction. Antenna (Fig. 17) 2.7 mm long and rather massive.
Pronotum (Fig. 59) approximately 1.06 times as broad as long and 1.08 times as broad as head, broadest anteriorly; lateral margins straight or weakly sinuate in posterior half in dorsal view; posterior angles marked; midline with distinct furrow reaching neither anterior nor posterior margins; lateral portions of disc with more or less pronounced oblong impression near lateral margin on either side; punctation dense and moderately coarse, more distinct than that of head.
Elytra (Fig. 59) approximately 0.85 times as long as pronotum; punctation very dense, similar to that of pronotum. Hind wings fully developed. Metatarsomere I approximately as long as the combined length of II–IV, or nearly so.
Abdomen approximately as broad as elytra; tergites III–V with moderately deep anterior impressions; tergite II with rather dense and moderately fine, tergite III with moderately sparse and moderatey fine, and tergites IV–VII with sparse and very fine punctation; posterior margin of tergite VII with palisade fringe.
♂: unknown.
♀: tergite VIII strongly transverse and with strongly convex posterior margin (Fig. 114); sternite VIII (Fig. 115) strongly transverse and with broadly convex posterior margin; spermatheca (Fig. 116) of distinctive shape, with long and coiled proximal portion.

Comparative notes: *Drusilla nepalensis* differs from the externally highly similar *D. smetanai* only by the less uneven surface of the pronotum (*D. smetanai*: pronotum more distinctly and more extensively impressed along middle, and with more pronounced lateral impressions), the coloration of the abdomen (*D. smetanai*: tergites III–V dark-yellowish to yellowish-brown), slightly more massive antennae, and by the completely different shape of the spermatheca. For an illustration of the spermatheca of *D. smetanai* see figure 19 in Pace (1992).

Distribution and natural history: This species has been recorded from three localities in Central and East Nepal, at altitudes of 1100–1680 m. The two females from Kenja, one of which is teneral, were found associated with a termite species of unknown identity.

Drusilla lativentris spec. nov.

urn:lsid:zoobank.org:act:7CAC3239-9821-4DF6-BB7A-C8A564E9AF14

(Fig. 18, 60, 117–123)

Type material: Holotype ♂: "CHINA: S-Yunnan (Xishuangbanna) 23 km NW Jinghong, vic Na Ben (NNNR) 730 m, N22°09.49, E100°39.92, transition zone, MF1, 10.X.2008, leg. A. Weigel / Holotypus ♂ *Drusilla lativentris* sp. n., det. V. Assing 2016" (NME). Paratype ♀: same data as holotype (cAss).

Etymology: The specific epithet (adjective) alludes to the broad abdomen, in particular the strongly transverse tergite VII and female sternite VIII.

Description: Body length 4.5–4.8 mm; length of forebody 2.0–2.2 mm. Coloration (Figs 18, 60): forebody black; abdomen reddish-brown; legs brown to dark-brown with the bases of the meso- and metafemora and the tarsi slightly paler; antennae blackish; maxillary palpi yellowish.
Head (Fig. 60) transverse, approximately 1.2 times as broad as long, broadest across eyes; posterior angles weakly marked; punctation fine, denser and somewhat more distinct in male than in female. Eyes enormous and bulging, posteriorly nearly reaching posterior

margin of head. Antenna (Fig. 18) 1.5–1.6 mm long and moderately massive; antennomere IV weakly transverse; antennomeres V–X of gradually increasing width and increasingly transverse, X less than 1.5 times as broad as long, and XI slightly longer than the combined length of IX and X.
Pronotum (Fig. 60) 1.08–1.13 times as broad as long and 1.07–1.09 times as broad as head, broadest anteriorly; lateral margins straight in posterior half in dorsal view; posterior angles marked; midline with fine and defined sulcus extending from postero-median pit nearly to anterior margin; disc of male pronotum extensively impressed in posterior three-fourths of middle; punctation very dense, somewhat coarser in male than in female; interstices without microsculpture.
Elytra approximately 0.8 times as long as pronotum; punctation even denser than that of pronotum; interstices without microsculpture. Hind wings fully developed. Metatarsomere I slightly longer than II, distinctly shorter than the combined length of II and III.
Abdomen broader than elytra; segments III–VII much more than twice as broad as long; tergites III–VII each with 1–2 lateral setiferous punctures on either side and with several setiferous punctures at posterior margin, otherwise impunctate, and with fine transverse microsculpture; posterior margin of tergite VII with palisade fringe.
♂: tergite VIII (Fig. 117) strongly transverse, posterior margin strongly crenulate and with a distinct lateral tooth on either side; sternite VIII (Fig. 118) longer and less transverse than tergite VIII, posterior margin convex; median lobe of aedeagus 0.6 mm long and shaped as in Figs 119–120; paramere 0.48 mm long, with moderately long and unmodified apical lobe.
♀: tergite VIII (Fig. 121) strongly transverse, posterior margin concave in the middle; sternite VIII (Fig. 122) strongly transverse and with broadly convex posterior margin; spermatheca (Fig. 123) minute in relation to body size, its maximal extension 0.18 mm.

Comparative notes: *Drusilla lativentris* is characterized particularly by the primary sexual characters and the broad abdomen with strongly transverse segments. For an overview of the *Drusilla* species previously recorded from China see Assing (2015b).

Distribution and natural history: The type locality is situated in the southwest of Yunnan, not far from the borders with Myanmar and Laos, at an altitude of 730 m. The specimens were collected with a Malaise trap. *Witteia tensa* and an unidentified species were found in the same locality.

3.8 Genus *Rabdotodrusilla* Pace, 2013

Comment: This genus previously included two species from Malaysia and Thailand (Assing (2016b).

Rabdotodrusilla vara spec. nov.

urn:lsid:zoobank.org:act:EF92FF0F-0E13-4BCB-9D20-270262CA9D76
(Figs 8, 41–42, 166–169)

Type material: Holotype ♂: "INDIA: Meghalaya #10, Ri Boi dist., Umran, 700 m, 22.X.2004, 25°46'28"N, 91°52'26"E / Leg. G. Cuccodoro, C. Carlton, R. Leschen & D. Erne / Holotypus ♂ *Rabdotodrusilla vara* sp. n., det. V. Assing 2016" (MHNG).

Etymology: The specific epithet (Latin, adjective: banded, striped) alludes to the coloration of the abdomen.

Description: Body length 4.1 mm; length of forebody 1.8 mm. Coloration (Figs 8, 41–42): head and pronotum reddish; elytra brown with the humeral portions paler; abdomen: tergites II–IV yellowish, posterior portions of paratergites III and IV infuscate, tergite V yellowish with the posterior margins and the posterior portions of the paratergites blackish, tergite VI blackish with the antero-lateral portions and the anterior portions of the paratergites yellowish; tergite VII yellowish with the posterior third slightly darker, tergite VIII yellowish, sternite VIII with the anterior two-fifths yellowish and the posterior three-fifths dark-brown; legs yellowish with the tibiae and the apical portions of the meso- and metafemora somewhat darker; antennae reddish with the basal two antennomeres dark-yellowish; maxillary palpi dark-yellowish with the terminal palpomere pale-yellowish.
Head (Fig. 41) 1.15 times as broad as long, broadest across eyes; posterior angles moderately marked; punctation moderately dense and extremely fine; pubescence pale, very thin, and depressed; interstices without microreticulation. Eyes strongly convex, more than twice as long as postocular region in dorsal view.
Antenna (Fig. 8) 1.1 mm long; antennomere III elongate and compressed; antennomeres IV weakly transverse, V–X of gradually increasing width and increasingly transverse, X less than 1.5 times as broad as long, and XI approximately as long as the combined length of IX and X.
Pronotum (Fig. 41) 1.05 times as long as broad and 1.1 times as broad as head; lateral margins sinuate in dorsal view; disc matt and with dense, long, and straight longitudinal striae except near anterior margin, antero-medially with granulose punctuation, antero-laterally with non-granulose punctation.
Elytra (Fig. 41) 0.67 times as long as pronotum; punctation fine and dense; interstices without microreticulation. Hind wings fully developed. Metatarsomere I as long as the combined length of II and III.
Abdomen (Fig. 42) narrower than elytra; tergites III–IV with moderately deep, tergite V with shallow anterior impressions; tergites III–VI with a lateral setiferous puncture on either side and few punctures at posterior margins, otherwise impunctate; tergite VIII with sparse punctation in posterior third; microsculpture absent;

posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII (Fig. 166) conspicuously pectinate.
♂: posterior margin of sternite VIII (Fig. 167) broadly convex; median lobe of aedeagus approximately 0.6 mm long and shaped as in Figs 168–169.
♀: unknown.

Comparative notes: *Rabdotodrusilla vara* is distinguished from *R. pectinata* Assing, 2006, its geographically closest congener, by smaller body size, distinctly shorter and less massive antennae with a much shorter antennomere XI, much smaller eyes, distinctly finer striae on the distinctly more slender pronotum, a more slender abdomen of completely different coloration, a posteriorly truncate tergite VIII, and by the shape of the median lobe of the aedeagus, particularly the sinuate ventral process in lateral view. For illustrations of *R. pectinata* see Assing (2016b).

Distribution and natural history: The type locality is situated in Meghalaya, Northeast India, at an altitude of 700 m.

3.9 Genus *Witteia* Maruyama & von Beeren, 2010

This recently described genus belongs to the *Wroughtonilla* genus group and previously included two species, the type species *W. dentilabrum* Maruyama & von Beeren, 2010 (associated with the ant *Leptogenys distinguenda* (Emery, 1887)) from Peninsular Malaysia and *W. borneensis* (Pace, 1987) (host ant unknown) from Borneo and Myanmar (Maruyama et al. 2010).

Witteia tensa spec. nov.

urn:lsid:zoobank.org:act:32B142EA-09BF-423E-8951-C710CE8AF383
(Figs 19, 61, 170–177)

Type material: Holotype ♂: "CHINA: S-Yunnan (Xishuangbanna) 23 km NW Jinghong, vic Na Ben (NNNR) 730 m, N22°09.49, E100°39.92, rubber plantation, MF1, 30.X.2008, leg. A. Weigel / Holotypus ♂ *Witteia tensa* sp. n., det. V. Assing 2016" (NME). Paratypes: 2 ♀♀: same data as holotype, but "transition zone, MF1, 18.VII.2008" (NME, cAss); 1 ex. [teneral]: same data as holotype, but "transition zone, MF2, 20.X.2008" (NME); 1 ♀: same data as holotype, but "transition zone, MF1, 10.X.2008" (NME); 1 ♀: same data as holotype, but "transition zone, MF, 28.VI.2008" (NME); 1 ♀: same data as holotype, but "transition zone, MF, 12.V.2008" (cAss); 1 ♂: same data as holotype, but "transition zone, GSr, 28.VI.2008" (cAss). 1 ex.: same data as holotype, but "28.VI.2008, BF, leg. A. Weigel, rubb. plant." (cAss); 1 ex.: "CHINA: S-Yunnan (Xishuangbanna), 20 km NW Jinghong, vic Man Dian (NNNR) / N22°07.80, E100°40.05, 730 m, 08.VII.2008, ricefield fallow, leg. A. Weigel MF" (NME); 1 ex.: "CHINA: S-Yunnan (Xishuangbanna), 20 km NW Jinghong, vic Man Dian (NNNR) / N22°07.80, E100°40.05, 720 m, 30.X.2008, BF, leg. A. Weigel, rice fallow" (NME).

Etymology: The specific epithet (Latin, adjective: elongate, stretched) alludes to the conspicuously slender body (including all body parts) and the slender spermatheca.

Description: Body of very slender habitus, 5.6–6.5 mm long; length of forebody 3.5–4.0 mm. Coloration (Figs 19, 61): head black, except for the reddish-brown antero-median portion of the frons; pronotum reddish-brown to blackish-brown with the lateral margins broadly paler; elytra pale-brown to dark-brown; abdomen brown to dark-brown with the apex, the posterior margins of the tergites, and often also the paratergites and the anterior tergites paler; legs pale-brown to dark-brown; antennae reddish to dark-brown; maxillary palpi yellowish to reddish.
Head (Fig. 61) strongly transverse, nearly 1.5 times as broad as long, without sexual dimorphism; vertex with pronounced and extensive impression between eyes; punctation distinctly granulose and moderately sparse to moderately dense, often less dense in median impression; integument with pronounced microsculpture rendering the surface matt. Eyes enormous, occupying all of lateral margins of head, and strongly bulging (of similar shape as in species of *Stenus* Latreille, 1797). Antenna (Fig. 19) conspicuously long and slender, approximately 3 mm long; all antennomeres distinctly oblong.
Pronotum (Fig. 61) distinctly oblong, approximately 1.1 times as broad as long (or nearly so) and slightly less broad than head, without sexual dimorphism; lateral margins sinuate, sharply bordered, and broadly flattened; midline with sharply defined and rather deep sulcus extending nearly to anterior margin; punctation coarsely granulose and dense; interstices with pronounced microsculpture and matt.
Elytra (Fig. 61) approximately 0.85 times as long as pronotum; lateral margins delimited by a conspicuously sharp and elevated carina; punctation distinctly granulose, less dense and less coarse than that of pronotum; interstices with pronounced microsculpture and matt. Hind wings fully developed. Legs very long and slender; metatibia 1.4–1.5 mm long; metatarsus 1.2–1.3 mm long; metatarsomere I very slender, nearly as long as the combined length of metatarsomeres II–IV.
Abdomen slightly narrower than elytra; tergites III–IV with, tergite V with or without very shallow anterior impressions; punctation rather dense and fine; pubescence dense, short, and depressed; interstices with microreticulation composed of isodiametric meshes; posterior margin of tergite VII with palisade fringe.
♂: tergite VIII (Figs 173–174) oblong, posterior margin truncate and very finely crenulate in the middle; sternite VIII (Fig. 175) very weakly transverse and with convex posterior margin; median lobe of aedeagus

(Figs 170–171) approximately 0.75 mm long, very slender both in ventral and in lateral view, subapically abruptly narrowed and apically acute in ventral view, and with a very prominent crista apicalis; paramere approximately 0.65 mm long and with rather long apical lobe.
♀: tergite VIII (Fig. 176) oblong, posterior margin weakly convex and not crenulate in the middle; sternite VIII (Fig. 177) weakly tranverse and with convex posterior margin; spermatheca (Fig. 172) long and slender, its maximal extension approximately 0.4 mm.

Comparative notes: This species is distinguished from the two previously known representatives of the genus by the much longer and more slender spermatheca, and additionally as follows:
from *W. dentilabrum* by the darker coloration of the pronotum, elytra, abdomen, and legs, by the distinctly granulose punctation of the pronotum, and by the shape of the median lobe of the aedeagus;
from *W. borneensis* (male unknown) by a more glossy forebody and a more distinctly granulose punctation of the pronotum.
For illustrations of *W. dentilabrum* and *W. borneensis* see Maruyama et al. (2010) and Pace (1987).

Distribution and natural history: The type specimens were collected in several close localities to the northwest of Jinghong, Xishuangbanna (China: Yunnan), mostly with Malaise traps. One teneral specimen was found in October. The host ant is unknown.

3.10 Genus *Zyras* Stephens, 1835

Zyras (*Termidonia*) *nepalensis* Pace, 1992

Material examined: **Nepal**: 1 ♂, 1 ♀ [both specimens with two termites on separate pins], Kenja env., Likhu Khola, 28.IV.1993, leg. Kleeberg (cKle, cAss).

Comment: In the original description, which is based on a unique male from "Nepal, Phewa-Tal, Pokhara, 85°59'E - 22°14'N", Pace (1992) assigned *Z. nepalensis* to the subgenus *Rhynchodonia* Wasmann, 1896. Hlaváč et al. (2011), however, list it in *Termidonia* Motschulsky, 1860. This species is currently known only from Nepal; it was recorded from the Manaslu range by Assing (2009).

3.11 Genus *Peltodonia* Bernhauer, 1936

Peltodonia currently includes 16 species, 13 of which have been described from Borneo (Assing 2015c, Hlaváč et al. 2011, Pace 2014, 2015).

Peltodonia borneensis (Pace, 2008)

Material examined: **Malaysia**: 2 exs., Sabah, Danum Valley, B.R.L., flight interception trap, 14–16.II.2007, leg. Rougemont (cRou, cAss).

Comment: The known distribution is confined to the Malaysian part (Sabah, Sarawak) of Borneo (Assing 2016b).

3.12 Genus *Pedinopleurus* Cameron, 1939

Pedinopleurus notabilis (Silvestri, 1946)

Material examined: **China**: 1 ex., Yunnan, Xishuangbanna, 23 km NW Jinghong, Na Ban env., 22°09'N, 100°40'E, 730 m, rubber plantation, malaise trap, 30.X.2008, leg. Weigel (cAss).

Comment: This species was originally described from Vietnam and recently reported also from China and Laos (Assing 2016b).

3.13 Genus *Lomechusoides* Tottenham, 1939

Lomechusoides throngensis (Sawada, 1994)

Material examined: **Nepal**: 1 ex., Annapurna, plateaus above Kangsar, W Manang, 4000–4600 m, 5.VI.1993, leg. Schmidt (cKle).

Comment: A representative of the *Lomechusoides minor* group (Jászay & Hlaváč 2013), *L. throngensis* is currently the sole representative of the genus in Nepal.

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