

New species and records of *Stilicoderus* and *Stiliderus*, primarily from the southern East Palaearctic region (Coleoptera: Staphylinidae: Paederinae)

VOLKER ASSING

Abstract

Ten species of *Stilicoderus* Sharp, 1889 and one of *Stiliderus* Motschulsky, 1858 are described and illustrated: *Stilicoderus wrasei* **n. sp.** (China: Yunnan), *S. schuelkei* **n. sp.** (China: Yunnan), *S. denticulatus* **n. sp.** (China: Yunnan), *S. angulatus* **n. sp.** (China: Yunnan), *S. tuberculosus* **n. sp.** (China: Yunnan), *S. barbulatus* **n. sp.** (China: Yunnan), *S. psittacus* **n. sp.** (China: Sichuan, Shaanxi, Hubei, Yunnan), *S. aquilinus* **n. sp.** (China: Sichuan), *S. caprarius* **n. sp.** (Indonesia: New Guinea), *S. acutissimus* **n. sp.** (Indonesia: New Guinea), and *Stiliderus ocreatus* **n. sp.** (Indonesia: Bali). Two synonymies are proposed: *Stilicoderus japonicus* Shibata, 1968 = *S. malaisei* (Scheerpeltz, 1965), **n. syn.**, = *S. scheerpeltzi* (Rougemont, 1986), **n. syn.** Additional records of sixteen *Stilicoderus* species and of seven *Stiliderus* species, primarily from the Palaearctic region, are reported, among them nine new country records from China (4 records), Laos (4), and India (1). A catalogue of the *Stilicoderus* and *Stiliderus* species recorded from the Palaearctic region, including Myanmar and Assam, is provided. Thirty-three species of *Stilicoderus* and seven of *Stiliderus* are now known from this region. The diversity of *Stilicoderus* is greatest in China (22 species, with 18 species recorded from Yunnan alone), followed by Myanmar (11), North India (10), Nepal (7), Taiwan (4), and Japan (2). *Stiliderus* is represented in North India by four species, in China by three (all of them in Yunnan), and in Nepal, Myanmar, and Japan by one species each. The distributions of 18 species are mapped.

Key words: Coleoptera, Staphylinidae, Paederinae, Stilicina, *Stiliderus*, *Stilicoderus*, Palaearctic region, Oriental region, Australian region, Himalaya, China, new species, new synonymies, new records, catalogue, diversity, distribution.

Zusammenfassung

Zehn Arten der Gattung *Stilicoderus* Sharp, 1889 und eine der Gattung *Stiliderus* Motschulsky, 1858 werden beschrieben und abgebildet: *Stilicoderus wrasei* **n. sp.** (China: Yunnan), *S. schuelkei* **n. sp.** (China: Yunnan), *S. denticulatus* **n. sp.** (China: Yunnan), *S. angulatus* **n. sp.** (China: Yunnan), *S. tuberculosus* **n. sp.** (China: Yunnan), *S. barbulatus* **n. sp.** (China: Yunnan), *S. psittacus* **n. sp.** (China: Sichuan, Shaanxi, Hubei, Yunnan), *S. aquilinus* **n. sp.** (China: Sichuan), *S. caprarius* **n. sp.** (Indonesien: Neuguinea), *S. acutissimus* **n. sp.** (Indonesien: Neuguinea) und *Stiliderus ocreatus* **n. sp.** (Indonesien: Bali). *Stilicoderus malaisei* (Scheerpeltz, 1965), **n. syn.**, und *S. scheerpeltzi* (Rougemont, 1986), **n. syn.**, werden mit *S. japonicus* Shibata, 1968 synonymisiert. Weitere Nachweise von sechzehn *Stilicoderus*- und sieben *Stiliderus*-Arten werden insbesondere aus der Paläarktis gemeldet, darunter neue Erstnachweise aus China (4 Nachweise), Laos (4) und Indien (1). Ein Katalog der aus der Paläarktis (einschließlich Myanmar und Assam) nachgewiesenen *Stilicoderus*- und *Stiliderus*-Arten wird erstellt. 33 *Stilicoderus*- und sieben *Stiliderus*-Arten sind derzeit aus dieser Region bekannt. Die Diversität der Gattung *Stilicoderus* ist am höchsten in China (22 Arten, 18 davon allein aus Yunnan nachgewiesen), gefolgt von Myanmar (11), Nordindien (10), Nepal (7), Taiwan (4) und Japan (2). *Stiliderus* ist in Nordindien mit vier Arten, in China mit drei (alle in Yunnan) sowie in Nepal, Myanmar und Japan mit jeweils einer Art vertreten. Die derzeit bekannten Verbreitungsgebiete von 18 Arten werden anhand von Karten illustriert.

Contents

1	Introduction.....	58
2	Material and methods.....	58
3	The species of <i>Stilicoderus</i> and <i>Stiliderus</i> in the Palaearctic region, including Myanmar and Assam	60
4	Species descriptions and additional records.....	60
4.1	<i>Stilicoderus</i>	60
4.2	<i>Stiliderus</i>	78
5	References.....	81

1 Introduction

The status of the paederine genera *Stiliderus* Motschulsky, 1858 (type species: *Stiliderus cicatricosus* Motschulsky, 1858) and *Stilicoderus* Sharp, 1889 (type species: *Stilicoderus signatus* Sharp, 1889) has had a confusing taxonomic history and been subject to controversy and inconsistency. Repeatedly, *Stilicoderus* has been synonymised with *Stiliderus* and revalidated subsequently. For more details and discussions see ROUGEMONT (1986a, 1996). ROUGEMONT (1996) gives a synopsis of the species groups defined in earlier papers and attributes them to three generic entities, *Stilicoderus*, *Stiliderus* sensu lato, and *Stiliderus* sensu strictu. A thorough phylogenetic approach has not been attempted. Therefore, and for practical purposes, *Stiliderus* and *Stilicoderus* are tentatively regarded as distinct genera for the time being, *Stiliderus* including all the species with bilobed and *Stilicoderus* those with simple tarsomeres IV.

The species of *Stiliderus* and *Stilicoderus* have been treated in a series of papers by ROUGEMONT published during the period from 1985 to 1996 (see reference section). According to the latest contribution (ROUGEMONT 1996), *Stiliderus* (sensu lato and sensu strictu) included 42 species in four species groups distributed in the East Palaearctic and Oriental regions, and *Stilicoderus* comprised 69 species and two subspecies in ten species groups in the East Palaearctic, Oriental, and Australian regions. Since then, one additional species of *Stilicoderus* has been described from Taiwan (SHIBATA 2002) and two names, one of them valid and one a synonym, have been moved from *Rugilus* Leach, 1819 to *Stilicoderus* (ASSING 2012).

While different species groups can mostly be distinguished based on external characters alone, the same does not apply to the identification of species within some species groups. The only reliable character is often the morphology of the aedeagus, in some cases also the shape of the male sternite VIII. At the same time, some species, particularly those with vast distributions, are subject to pronounced intraspecific variation. Nevertheless, the descriptions of a number of species have been based exclusively on females, a practice unfortunately continued even in more recent papers.

In the course of a revision of Palaearctic and Oriental *Rugilus*, numerous specimens of *Stiliderus* and *Stilicoderus*

were seen that had erroneously been attributed to *Rugilus*. Additional material was found in paederine material from various collections, which was forwarded to me for identification and study. A particularly diverse and comprehensive contribution eventually came from MICHAEL SCHÜLKE (Berlin), who had accumulated material primarily from China collected during a series of field trips to various Chinese regions since the 1990s. The material studied yielded not only a number of new records of zoogeographic interest, but also eleven new species which are described below.

Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material under their care. In particular, I would like to thank MICHAEL SCHÜLKE (Berlin) for the generous gift of several holotypes and YASUTOSHI SHIBATA (Tokyo), who kindly donated a reference male of *S. exiguitas*. BENEDIKT FELDMANN (Münster) and GUILLAUME DE ROUGEMONT (Londinières) proofread and commented on the manuscript, respectively.

2 Material and methods

The material referred to in this study is deposited in the following public institutions and private collections:

cAss	author's private collection
cKle	private collection ANDREAS KLEEBERG, Berlin
cSch	private collection MICHAEL SCHÜLKE, Berlin
cSha	private collection ALEXEY SHAVRIN, Daugavpils
cSme	private collection ALEŠ SMETANA, Ottawa
NHMW	Naturhistorisches Museum Wien (H. SCHILLHAMMER)
NME	Naturkundemuseum Erfurt (M. HARTMANN)
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg (L. BEHNE)
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. SCHAWALLER)
SNSD	Senckenberg Naturhistorische Sammlungen Dresden (O. JÄGER)
ZMUC	Natural History Museum Denmark / University of Copenhagen Zoological Museum (A. SOLODOVNIKOV)

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). For the photographs a digital camera (Nikon Coolpix 995) was used. The maps were created using MapCreator 2.0 (primap) software.

Head length was measured from the anterior margin of the frons to the posterior margin of the head, head width across eyes,

Tab. 1. *Stilicoderus* and *Stiliderus* species recorded from the East Palaearctic, including Myanmar and Assam. New country and province records reported in the following chapter are given in bold print. In the references column, only original descriptions and records based on revisory work, on an examination of the male sexual characters, or that were considered reliable for other reasons are considered. – The articles are abbreviated as follows (those containing primary records are given in bold print): A12 = ASSING (2012); App = ASSING (present paper); B38 = BERNHAUER (1938); Ca31 = CAMERON (1931); Co75 = COIFFAIT (1975); Co78 = COIFFAIT (1978); Co82a = COIFFAIT (1982a); Co82b = COIFFAIT (1982b); F95 = FAUVEL (1895); I84 = ITO (1984); K59 = KRAATZ (1859); M58 = MOTSCHULSKY (1858); R85a = ROUGEMONT (1985a); R86a = ROUGEMONT (1986a); R86b = ROUGEMONT (1986b); R86d = ROUGEMONT (1986d); R96 = ROUGEMONT (1996); Sc65 = SCHEERPELTZ (1965); Sh68 = SHIBATA (1968); Sh74 = SHIBATA (1974); Sh02 = SHIBATA (2002); Sm04 = SMETANA (2004); Sp89 = SHARP (1889); W94 = WATANABE (1994); WS72 = WATANABE & SHIBATA (1972). – * = record/description based exclusively on females.

Taxon	Revised distribution	References
<i>Stilicoderus</i>		
<i>angulatus</i> n. sp.	China: Yunnan	App
<i>aquilinus</i> n. sp.	China: Sichuan	App
<i>barbulatus</i> n. sp.	China: Yunnan	App
<i>birmanus</i> Scheerpeltz, 1965	Myanmar; China: Yunnan*	R86a, R96, Sc65, Sm04
<i>continentalis</i> Rougemont in litt.	China: Sichuan	App
<i>denticulatus</i> n. sp.	China: Yunnan	App
<i>discalis</i> Fauvel, 1895	Myanmar; Thailand; Laos ; Vietnam	App, F95, R86a, R96
<i>exiguitas</i> Shibata, 1974	Taiwan	App, R86a, R96, Sh74, Sh02, Sm04
<i>feae</i> Fauvel, 1895	Nepal; N-India; Myanmar; China: Yunnan; Thailand; Laos*	App, Co82a, F95, R85a, R86a, R96, Sm04
<i>fenestratus</i> Fauvel, 1895	Nepal; N-India; Myanmar; China: Yunnan; Thailand	App, F95, R86a, R96, Sm04
<i>formosanus</i> Rougemont, 1996	China: Fujian ; Taiwan	App, R96, Sh02, Sm04
<i>granulifrons</i> (Rougemont, 1985)	Nepal; N-India; Myanmar; China: Yunnan ; Thailand	App, R85a, R86a, R96, Sm04
<i>helpferi</i> (Rougemont, 1985)	Myanmar; China: Yunnan; Thailand	R85a, R86a, R96, Sm04
<i>incognitus</i> (Rougemont, 1986)	Myanmar	R86a, R96
<i>japonicus</i> Shibata, 1968 = <i>malaisei</i> (Scheerpeltz, 1965); n. syn. = <i>scheerpeltzi</i> (Rougemont, 1986); n. syn.	Myanmar; China: Henan , Hubei, Sichuan, Shaanxi, Yunnan ; Japan	App, R85a, R86a, R96, Sc65, Sh68, Sm04, W94
<i>kambaitiensis</i> (Scheerpeltz, 1965) = <i>assamensis</i> (Rougemont, 1985) = <i>dubius</i> (Rougemont, 1985)	N-India (incl. Assam); Nepal; Myanmar; Laos	App, R86a, R86b, R96, Sc65, Sm04
<i>kasaharai</i> Shibata, 2002	Taiwan	Sh02
<i>kuani</i> Shibata, 1974	Taiwan	Sh74, Sh02, R86a, R96, Sm04
<i>lomholdti</i> (Rougemont, 1986)	China: Yunnan ; Thailand	App, R86a, R96
<i>malaisei</i> Scheerpeltz, 1965	N-India; Myanmar	R85a, R86a, R96, Sc65, Sm04
<i>minor</i> Cameron, 1931 = <i>radjah</i> Coiffait, 1978	N-India; Nepal; Bhutan; China: Gansu, Shaanxi, Yunnan*	App, Ca31, Co78, R85a, R86a, R96, Sm04
<i>nagamontium</i> (Rougemont, 1986)	N-India: Assam	R86a, R96
<i>nepalensis</i> (Rougemont, 1986)	N-India; Nepal	R86a, R96, Sm04
<i>psittacus</i> n. sp.	China: Shaanxi, Sichuan, Hubei, Yunnan	App
<i>schuelkei</i> n. sp.	China: Yunnan	App
<i>shan</i> (Rougemont, 1986)	Myanmar; China: Yunnan ; Thailand	App, R86a, R96
<i>similis</i> (Rougemont, 1986)	Myanmar; Thailand	R86a, R96
<i>signatus</i> Sharp, 1889 = <i>reitteri</i> (Bernhauer, 1938)	China: Hubei, Sichuan, Shaanxi; Japan	A12, App, B38, R85a, R86a, R96, Sh68, Sm04, Sp89, W94, WS72
<i>strigosus</i> (Rougemont, 1985)	N-India; China: Yunnan; Thailand; Sumatra	R85a, R86a, R96, Sm04
<i>trapezeiceps</i> (Rougemont, 1986)	China: Yunnan; Thailand; Laos	App, R86a, R96, Sm04
<i>tuberculosis</i> n. sp.	China: Yunnan	App
<i>variolosus</i> Coiffait, 1975	Nepal; N-India	App, Co75, Co82a, R85a, R86a, R96, Sm04
<i>wrasei</i> n. sp.	China: Yunnan	App
<i>Stiliderus</i>		
<i>cicatricosus</i> Motschulsky, 1858 = <i>sculptipennis</i> Kraatz, 1859	N-India (incl. Meghalaya); Myanmar; China: Yunnan; Sumatra	Co82b, K59, M58, R86d, R96, Sm04
<i>duplicatus</i> (Ito, 1984)	S-Japan	I84, Sm04
<i>loebli</i> Rougemont, 1985	N-India: Assam	R85a, R86d, R96
<i>occidentalis</i> Rougemont, 1986	N-India	App, R86d, R96, Sm04
<i>smetanai</i> Rougemont, 1986	Nepal; N-India	App, R86b, R86d, R96, Sm04
<i>yikor</i> Rougemont, 1996	China: Yunnan; Thailand	R96, Sm04
<i>yunnanensis</i> Rougemont, 1996*	China: Yunnan*	R96, Sm04

elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, total length from the anterior margin of the mandibles (in resting position) to the apex of the abdomen, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The side of the aedeagus with the sperm duct opening is referred to as the ventral, the opposite side as the dorsal aspect.

The individual labels of type specimens are separated by slashes; they are cited in the original spelling and format, except that slashes were replaced with commas and that capitalized geographic names of countries are given in standard format (i. e., “China” rather than “CHINA”). Moreover, the following adaptations were made according to the general format requirements of the journal: names of persons (except authors of species) in small capitals, scientific names of genera and species in italics, dates with the months always in Roman numbers.

The biogeographic limits are in accordance with SMETANA (2004), if not indicated otherwise. The chronological order of the species and (sub-)group affiliations is based on ROUGEMONT (1996).

3 The species of *Stilicoderus* and *Stiliderus* in the Palaearctic region, including Myanmar and Assam

Myanmar and the Indian province Assam are explicitly included here because they reach into the eastern Himalaya, but are not included in the Palaearctic region sensu SMETANA (2004). In all, thirty-three species of *Stilicoderus* and seven of *Stiliderus* are now known from this region (Tab. 1). *Stilicoderus umbratus* Fauvel, 1904, a species listed by SMETANA (2004) for North India, is excluded from this list. The species was described from southern India (Nilgiri Hills) and primary records from the Himalayan region of India are unknown (ROUGEMONT 1996).

The region with the greatest diversity of *Stilicoderus* is mainland China (22 species, 18 of which have been recorded from Yunnan alone), followed by Myanmar (11 species), North India (10 species), Nepal (7 species), Taiwan (4 species), and Japan (2 species). *Stiliderus* is represented in North India by four species, in China by three (all of them recorded only from Yunnan), and in Nepal, Myanmar, and Japan by one species each.

4 Species descriptions and additional records

4.1 *Stilicoderus*

feae group

Stilicoderus feae Fauvel, 1895

Material examined

India: 3 exs., Uttarakhand, 14 km E Uttarkashi, 30°45'N, 78°34'E, 1450 m, 10.–12.IV.2012, leg. SHAVRIN (cSha, cAss); 7 exs., Uttarakhand, 15 km SW New Tehri, 30°16'N, 78°22'E, 870 m, 18.–20.IV.2012, leg. SHAVRIN (cSha, cAss); 2 exs., Uttara-

khand, 10 km NW New Tehri, 30°27'N, 78°32'E, 1200 m, 9.–10.IV.2012, leg. SHAVRIN (cSha, cAss).

Nepal: 1 ♀, N Kathmandu, Shivapuri Lekh, upper Bagmati river valley, 1800–1900 m, 24.V.2005, leg. SCHMIDT (NME); 1 ♀, Dailekh district, N Dailekh, 1600 m, 1.–2.VI.1998, leg. SCHAWALLER (SMNS); 1 ♀, Kathmandu, Phulchoki, V.1993, leg. SCHIMMEL (cAss); 1 ♀, south slope of Dhaulagiri Himal, N Banduk village, 28°28'N, 83°35'E, 1900–2300 m, 6.V.2009, leg. SCHMIDT (NME).

Laos: 1 ♀, Hu Phan province, Ban Saluei, Pu Phan mts., 20°15'N, 104°02'E, 1500–2000 m, 2.IV.–11.V.2001, leg. HAUCK (cSch).

Comment

This species is widespread from the Himalaya across China to Thailand (COIFFAIT 1982a, ROUGEMONT 1985a, 1986a, 1996, SMETANA 2004). The above female from Laos represents a new country record.

Stilicoderus fenestratus Fauvel, 1895

Material examined

India: 22 exs., Uttarakhand, 14 km E Uttarkashi, 30°45'N, 78°34'E, 1450 m, 10.–12.IV.2012, leg. SHAVRIN (cSha, cAss).

Comment

The distribution of *S. fenestratus* is similar to that of *S. feae* and ranges from the Himalaya across Myanmar and Yunnan to Thailand (ROUGEMONT 1996, SMETANA 2004).

Stilicoderus shan (Rougemont, 1986) (Fig. 2)

Material examined

China: 1 ♂, 3 ♀♀, Yunnan, Lincang Pref., 33 km SSW Lincang, Bang-ma Shan, 23°36'N, 100°00'E, 2150 m, deciduous forest remnant, litter and dead wood sifted, 11.IX.2009, leg. SCHÜLKE (cSch, cAss).

Comment

The original description of *S. shan* is based on type material from Myanmar (type locality: “Burma, S. S. S. Kalaw, ca. 1300 m”) and Thailand (Doi Inthanon and Doi Pui) (ROUGEMONT 1986a). The above specimens represent the first record from China. The distribution is mapped in Fig. 2.

Stilicoderus baliensis (Rougemont, 1986)

Material examined

Indonesia: 2 ♂♂, 1 ♀, Bali, Kebun Raya, 1600 m, 4.II.1994, leg. PEDERSEN (ZMUC, cAss).

Comment

Stilicoderus baliensis, whose original description is based on a male holotype and a female paratype from

“Bali, Lake Buayan”, was described as a subspecies of *S. drescheri* Cameron, 1936, probably because the aedeagus is of similar general morphology and the differences between *S. baliensis* and *S. drescheri* are not very pronounced. However, the same applies to many other species groups in *Stilicoderus*, too, and there is no zoogeographic evidence supporting the subspecific status of *S. baliensis*. Consequently, *S. baliensis* is here treated as a distinct species.

signatus group

Stilicoderus signatus Sharp, 1889

(Figs. 1, 3, 4)

Material examined

Japan: 2 exs., Hokkaido, 40 km S Sapporo, Shikotsu-ko lake, 24.IX.2007, leg. LACKNER (cAss); 2 exs., same data, but 5.X.2008 (cAss); 1 ex., Hokkaido, Ebetsu-shi, Nopporo Shinrin Koen, 20.X.2007, leg. LACKNER (cAss); 2 exs., Hokkaido, Sapporo env., Nopporo Virgin Forest, X.2008, leg. LACKNER (cAss); 1 ex., Hokkaido, Ebetsu city, Nopporo Virgin Forest, sifted, 5.V.2006, leg. LACKNER (cAss); 1 ex., Hokkaido, Sapporo-Maruyama, 23.V.2007, leg. LACKNER (cAss); 1 ♂, 2 ♀♀, Honshu, Osaka, Mt. Kongo, 9.X.1993, leg. ITO (SDEI, cAss); 1 ♀, Osaka, Mt. Myoken, 25.VI.1993, leg. ITO (SDEI); 1 ♂, Honshu, Osaka, Mt. Kongo, 9.X.1993, leg. ITO (cAss); 1 ♀, Honshu, Shiga, Hourai mt., Kojorou valley, 4.V.1994, leg. ITO (SDEI).

China: 1 ♂, 3 ♀♀ [2 ♀♀ teneral], Shaanxi, Qinling Shan, 108 km SW Xi'an, autoroute km 93 S of Zhouzhi, 33°45'N, 107°56'E, 1650 m, mountain forest, sifted, 1.–2.IX.1995, leg. PUTZ, SCHÜLKE, WRASE (cSch); 1 ♂, 2 ♀♀, Shaanxi, Qinling Shan, 105 km SW Xi'an, pass on road Foping–Zhouzhi, N-slope, 33°44'N, 107°59'E, 1990 m, small creek valley, mixed deciduous forest, 2. & 4.VII.2001, leg. WRASE (cSch, cAss); 1 ♂, Sichuan, Qingcheng Shan, NW Chengdu, 30°54'N, 103°33'E, 650–700 m, 18.V.1997, leg. WRASE (cAss); 1 ♀ [teneral], Sichuan, Wenjiang District, Dujiangyan Co., Qingcheng Shan, 56 km NW Chengdu, 30°54'N, 103°33'E, 975 m, forest remnant near stream, 18.VI.1999, leg. SCHÜLKE (cSch).

Comment

Stilicoderus signatus appears to be widespread in Japan and China, where it had previously been recorded from Hubei, Sichuan, and Shaanxi (SMETANA 2004). ROUGEMONT (1996) reported *S. signatus* from China, but had not given any primary records from there. The records in SMETANA (2004) are apparently based on contributions by SCHÜLKE (unpubl.). The distribution in China is illustrated in Fig. 1. For additional records from Japan see ROUGEMONT (1985a, 1986a), SHIBATA (1968), WATANABE (1994), and WATANABE & SHIBATA (1972).

Slight differences in the shape of the ventral process of the aedeagus are noticeable between the material from

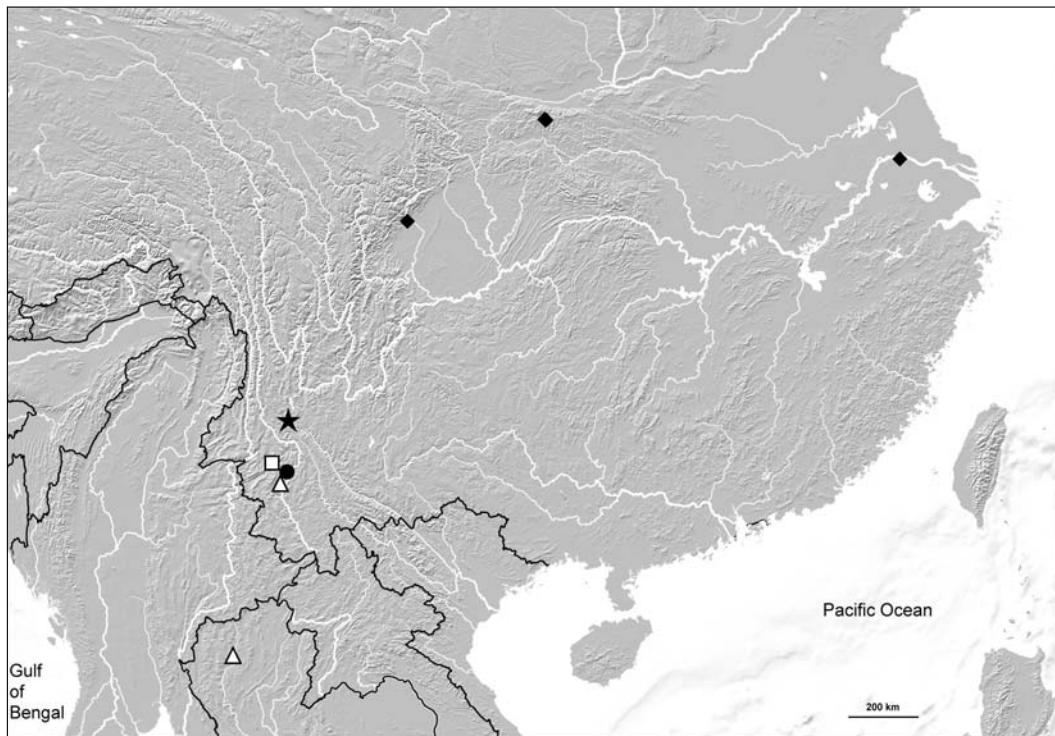


Fig. 1. Distribution of species of the *Stilicoderus signatus* group in China and adjacent regions: *S. signatus* (diamonds; records from Japan not shown); *S. schuelkei* (star); *S. denticulatus* and *S. angulatus* (square); *S. wrasei* (circle); *S. lomholdti* (triangles).

Japan and from China (Figs. 3, 4), but they appear to be an expression of intra- rather than interspecific variation.

The material from China was collected at altitudes of 650–1990 m. Teneral specimens were found in June and September.

Stilicoderus kambaitiensis (Scheerpeltz, 1965)

(Figs. 2, 5, 6)

Material examined

Nepal: 8 exs., Manaslu range, S Bara Pokhari, 28°15'N, 84°25'E, 2100 m, 29.IV.2005, leg. SCHMIDT (NME, cAss); 5 ♂♂, 6 ♀♀, Dhaulagiri, Baglung Lekh, W Baglung, 28°50'N, 83°31'E, 2400 m, 12.V.2004, leg. KLEEBERG (cKle, cAss); 2 ♂♂, 4 ♀♀, Baglung Lekh, ca. 15 km W Baglung, 2400 m, 11.V.2004, leg. KLEEBERG (cKle); 1 ♂, 6 ♀♀, Baglung Lekh, 10 km W Baglung, 2500 m, 10.V.2004, leg. KLEEBERG (cKle); 7 ♂♂, 9 ♀♀, Baglung Lekh, 10–15 km W Baglung, 2350–2550 m, leg. KLEEBERG (cKle, cAss); 1 ♂, Baglung Lekh, upper Tara Khola, Karkha, 2600 m, 18.V.2004, leg. KLEEBERG (cAss); 1 ♂, 1 ♀, Baglung Lekh, 30 km W Baglung, N Tara Khola, 18.V.2004, leg. SCHMIDT (cKle); 10 exs., south slope of Dhaulagiri Himal, N Banduk village, 28°28'N, 83°35'E, 1900–2300 m, 6.V.2009, leg. SCHMIDT (NME, cAss); 3 ♀♀, Shivalaya env., bank of Kimti Khola, 2.V.1993, leg. KLEEBERG (cKle); 1 ♀, Annapurna, Madi Khola valley, below Sikles, 1500 m, 10.V.1996, leg. SCHMIDT & JÄGER (SNSD).

Laos: 3 exs., Hu Phan province, Ban Saluei, Pu Phan mts., 20°15'N, 104°02'E, 1500–2000 m, 2.IV.–11.V.2001, leg. HAUCK (cSch, cAss).

Comment

Stilicoderus kambaitiensis was originally described from Myanmar and subsequently recorded also from Nepal and northern India (ROUGEMONT 1986a, 1986b, SMETANA 2004). Strangely, ROUGEMONT (1996) indicates the species only from “Burma”. The currently known distribution is mapped in Fig. 2.

The above specimens from Laos are distinguished from the Himalayan material by larger body size, and a somewhat larger aedeagus with apical internal structures of slightly different shape (Fig. 5). The male sternite VIII of a male from Laos is illustrated in Fig. 6. Males from the region between Meghalaya, Burma, and Laos would be required to decide if the observed differences are an expression of intra- or of interspecific variation.

Stilicoderus wrasei n. sp.

(Figs. 1, 7–10)

Type material

Holotype ♂: “China (Yunnan) Lincang Pref., Xue Shan, 11 km ENE Lincang, 2510 m, 23°55'01"N, 100°11'17.5"E (second. pine forest with *Rhodod.*, small cleft with water, litter sifted), 10.IX.2009 D. W. WRASE [39] / Holotypus ♂ *Stilicoderus wrasei* sp. n. det. V. ASSING 2012” (cAss).

Paratype: 4 ♀♀ [3 teneral]: same data as holotype (cSch, cAss).

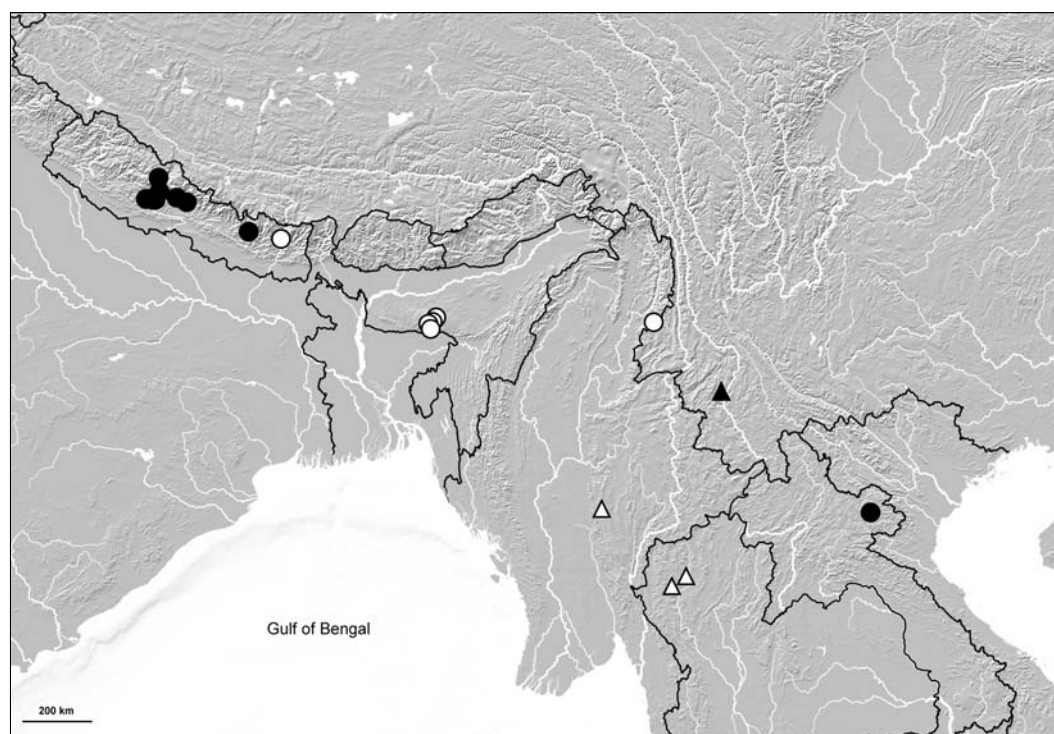


Fig. 2. Distribution of *Stilicoderus kambaitiensis* (circles) and *S. shan* (triangles). – Filled symbols: examined records; open symbols: literature records.

Etymology

The species is dedicated to my friend DAVID WRASE (Berlin), distinguished specialist of Carabidae, who collected the type material.

Description

Body length 6.0–6.5 mm; length of forebody 3.8–4.1 mm. Habitus as in Fig. 7. Coloration: body blackish, elytra with obliquely oval dark-yellowish spot in anterior half; legs yellowish, femoral apices narrowly blackish; antennae reddish with infusate antennomere I.

Head approximately as long as broad, widest across eyes, smoothly tapering behind eyes, somewhat produced posteriorly; lateral margins smoothly curving towards posterior constriction, posterior angles completely obsolete; punctation dense, relatively fine, and defined, somewhat sparser in median dorsal portion; interstices without microsculpture. Eyes moderately large and distinctly projecting from lateral contours of head, approximately one-third as long as the distance from posterior margin of eye to posterior constriction.

Pronotum approximately 1.15 times as long as broad and 0.85 times as wide as head; punctation granulose, denser and coarser posteriorly than anteriorly; midline with broad, long, and glossy impunctate band; on either side of this band with longitudinal shallow impression, laterad of this impression with weak, sparsely punctate elevation.

Elytra approximately 0.9 times as long as, and distinctly broader than pronotum; punctation very coarse, not granulose, and predominantly arranged in more or less irregular series; interstices glossy, without microsculpture. Hind wings fully developed. Tarsi moderately slender; metatarsomere I nearly as long as the combined length of II and III; tarsomeres IV simple.

Abdomen narrower than elytra; punctation very fine and dense; interstices with distinct microreticulation, particularly on posterior tergites; posterior margin of tergite VII with palisade fringe.

♂: tergite VIII with broadly and distinctly concave posterior margin (Fig. 8); posterior margin of sternite VII weakly concave in the middle; sternite VIII weakly transverse, posterior excision almost V-shaped and rather deep, its depth approximately $\frac{2}{3}$ the length of sternite (Fig. 9); aedeagus approximately 0.8 mm long, ventral process curved in lateral view, apical internal structures straight and long (Fig. 10).

Comparative notes

Based on external and the male sexual characters, *S. wrasei* belongs to the *S. signatus* species group, which previously comprised seven species (ROUGEMONT 1996); for a characterisation of this group see ROUGEMONT (1986a). *Stilicoderus wrasei* is reliably distinguished from other species of this group particularly by the morphology of the

aedeagus. It is additionally separated from the widespread and externally highly similar *S. signatus* by the distinctly concave posterior margin of the male tergite VIII (*S. signatus*: weakly convex) and by the shape of the posterior excision of the male sternite VIII.

Distribution and natural history

The type locality is situated in the Xue Shan, Yunnan, China (Fig. 1). The type specimens were sifted from leaf litter in a secondary pine forest at an altitude of 2510 m. Three paratypes are teneral.

Stilicoderus schuelkei n. sp.

(Figs. 1, 11–14)

Type material

Holotype ♂: “China: Yunnan, Dali Bai Aut. Pref., Wuliang Shan, 20 km NW Weishan, 25°19'58"N, 100°07'59"E, 1900 m, creek valley, litter & old flood debris sifted, 17.IX.2009, leg. M. SCHÜLKE [CH09-58] / Holotypus ♂ *Stilicoderus schuelkei* sp. n. det. V. ASSING 2012” (cAss).

Etymology

The species is dedicated to my friend and colleague MICHAEL SCHÜLKE (Berlin), who collected the holotype and who made his outstanding material from China available to me for study.

Description

Body length 5.8 mm; length of forebody 3.4 mm. Aside from the slightly smaller body, externally highly similar to *S. wrasei*, but distinguished by the male sexual characters:

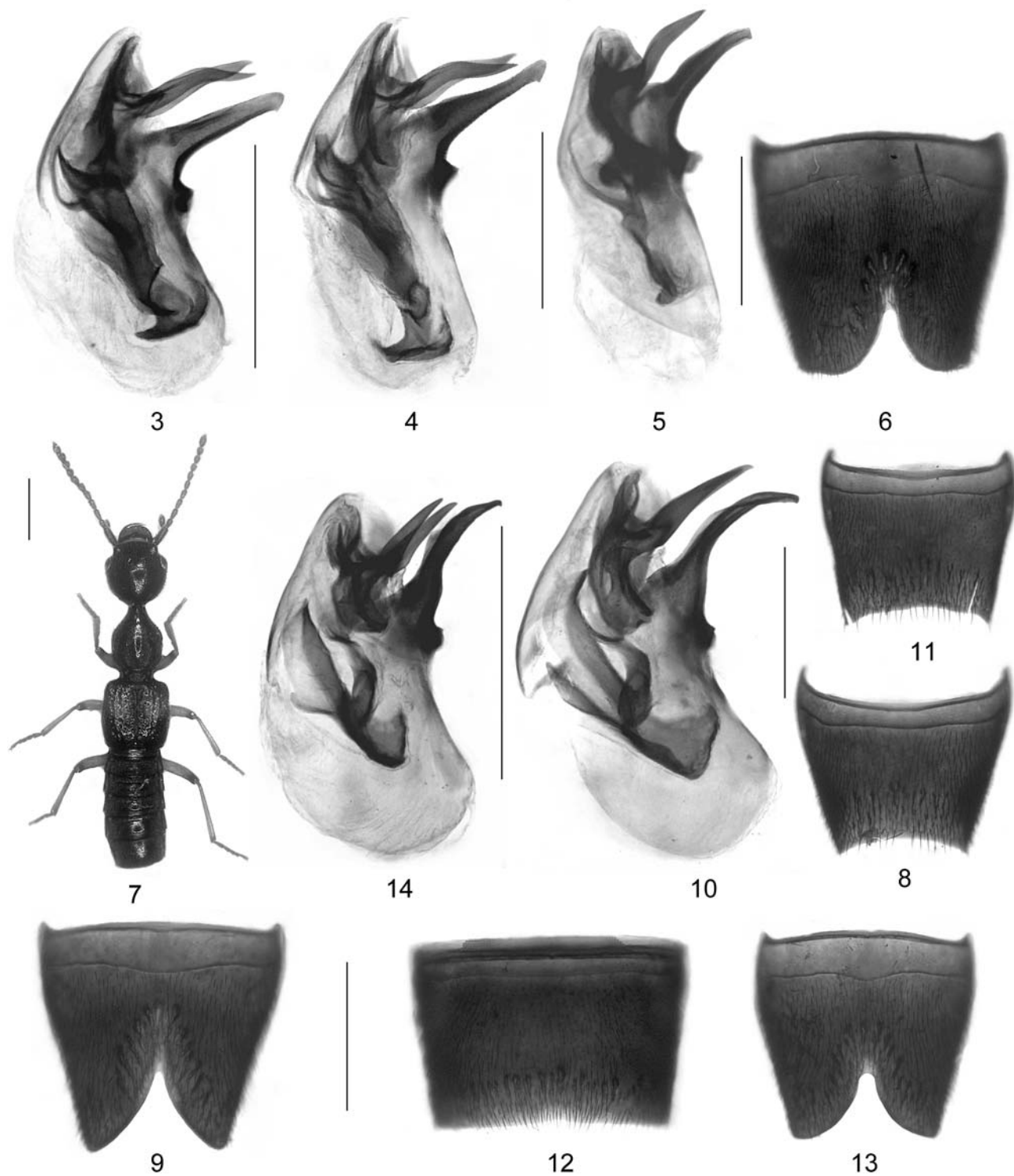
♂: tergite VIII similar to that of *S. wrasei* (Fig. 11); posterior margin of sternite VII weakly concave, otherwise not distinctly modified (Fig. 12); sternite VIII weakly transverse, posterior excision less deep and basally less acute than in *S. wrasei* (Fig. 13); aedeagus 0.75 mm long, ventral process stouter, slightly shorter, and less strongly curved in lateral view than in *S. wrasei*.

Comparative notes

Like the similar *S. wrasei*, *S. schuelkei* belongs to the *S. signatus* group. It is reliably distinguished from most representatives of this group only by the male sexual characters, from *S. wrasei* only by the shape of the posterior excision of the male sternite VIII and by the morphology of the aedeagus.

Distribution and natural history

The type locality is situated in the Wuliang Shan, Yunnan, China (Fig. 1). The holotype was sifted from leaf litter and old flood debris at an altitude of 1900 m.



Figs. 3–14. *Stilicoderus signatus* (3–4) from Japan (3) and Sichuan (4), *S. kambaitiensis* from Laos (5–6), *S. wrasei* (7–10), and *S. schuelkei* (11–14). – 3–5, 10, 14. Aedeagus in lateral view. 6, 9, 13. Male sternite VIII. 7. Habitus. 8, 11. Male tergite VIII. 12. Male sternite VII. – Scale bars: 1.0 mm (7), 0.5 mm (3–6, 8–14).

Stilicoderus denticulatus n. sp.

(Figs. 1, 15–20)

Type material

Holotype ♂: “China: Yunnan, Lincang Pref., Laobie Shan, Wei Bo Shan pass, 24°08'16"N, 99°42'53"E, 2375 m, creek valley, devastated second. decid. forest, litter & moss sifted, 8.IX.2009, leg. M. SCHÜLKE [CH09-35] / Holotypus ♂ *Stilicoderus denticulatus* sp. n. det. V. ASSING 2012” (cAss).

Paratypes: 3 ♂♂, 2 ♀♀ [1 ♂ slightly teneral]: same data as holotype (cSch, cAss).

Etymology

The specific epithet (Latin, adjective: with small tooth) refers to the subapically dentate ventral process of the aedeagus.

Description

Body length 5.8–6.7 mm; length of forebody 3.8–4.2 mm. Habitus as in Fig. 15. Externally highly similar to *S. wrasei* and *S. signatus*, but distinguished as follows:

Elytral spot on average somewhat smaller (Fig. 16). Punctuation of head denser and coarser (Fig. 17); interstices distinctly narrower than diameter of punctures. Pronotum with denser punctuation (Fig. 18), narrower impunctate median band, and less extensive lateral glossy patches.

♂: posterior margin of tergite VIII truncate, not concave; sternite VIII weakly transverse, posterior excision less deep and basally less acute than in *S. wrasei* (Fig. 19); aedeagus approximately 0.8 mm long, ventral process of very distinctive shape, subapically with small ventral tooth (Fig. 20).

Comparative notes

This species is reliably distinguished from most other representatives of the *S. signatus* group only by the conspicuous shape of the aedeagus and by the shape of the posterior excision of the male sternite VIII. It is additionally separated from *S. wrasei* and *S. schuelkei* by the posteriorly truncate male tergite VIII, and from *S. signatus* by slightly larger body size. The aedeagus of *S. denticulatus* most resembles that of *S. siamensis* (Rougemont, 1986) from Thailand, which, according to ROUGEMONT (1986a) is similar in external characters (including coloration) to *S. kambaitiensis*. For illustrations of the aedeagus and the differently shaped male sternite VIII of *S. siamensis* see ROUGEMONT (1986a).

Distribution and natural history

The type locality is situated in the Laobie Shan, Yunnan, China (Fig. 1). The specimens were sifted from leaf litter and moss in a degraded secondary deciduous forest at an altitude of nearly 2400 m, together with the holotype of *S. angulatus*. One of the specimens is slightly teneral.

Stilicoderus angulatus n. sp.

(Figs. 1, 21–27)

Type material

Holotype ♂: “China: Yunnan, Lincang Pref., Laobie Shan, Wei Bo Shan pass, 24°08'16"N, 99°42'53"E, 2375 m, creek valley, devastated second. decid. forest, litter & moss sifted, 8.IX.2009, leg. M. SCHÜLKE [CH09-35] / Holotypus ♂ *Stilicoderus angulatus* sp. n. det. V. ASSING 2012” (cAss).

Etymology

The specific epithet (Latin, adjective) refers to the distinctly angled apical internal structures of the aedeagus.

Description

Body length 6.7 mm; length of forebody 4.1 mm. Habitus as in Fig. 21. Externally highly similar to *S. wrasei*, but distinguished as follows:

Elytral spot smaller, not reaching lateral margin in dorsal view (Fig. 22). General coloration darker; femora more extensively infusate, apical $\frac{1}{4}$ – $\frac{1}{3}$ blackish; tibiae extensively infusate; tarsi blackish-brown; antennae dark-brown with blackish antennomere I. Head with slightly sparser punctuation (Fig. 23). Pronotum with more defined, more regularly spaced, and slightly sparser punctuation (Fig. 24), only with small and shallow impression posteriorly on either side of the glossy midline, and without glossy patches laterally. Elytra slightly larger.

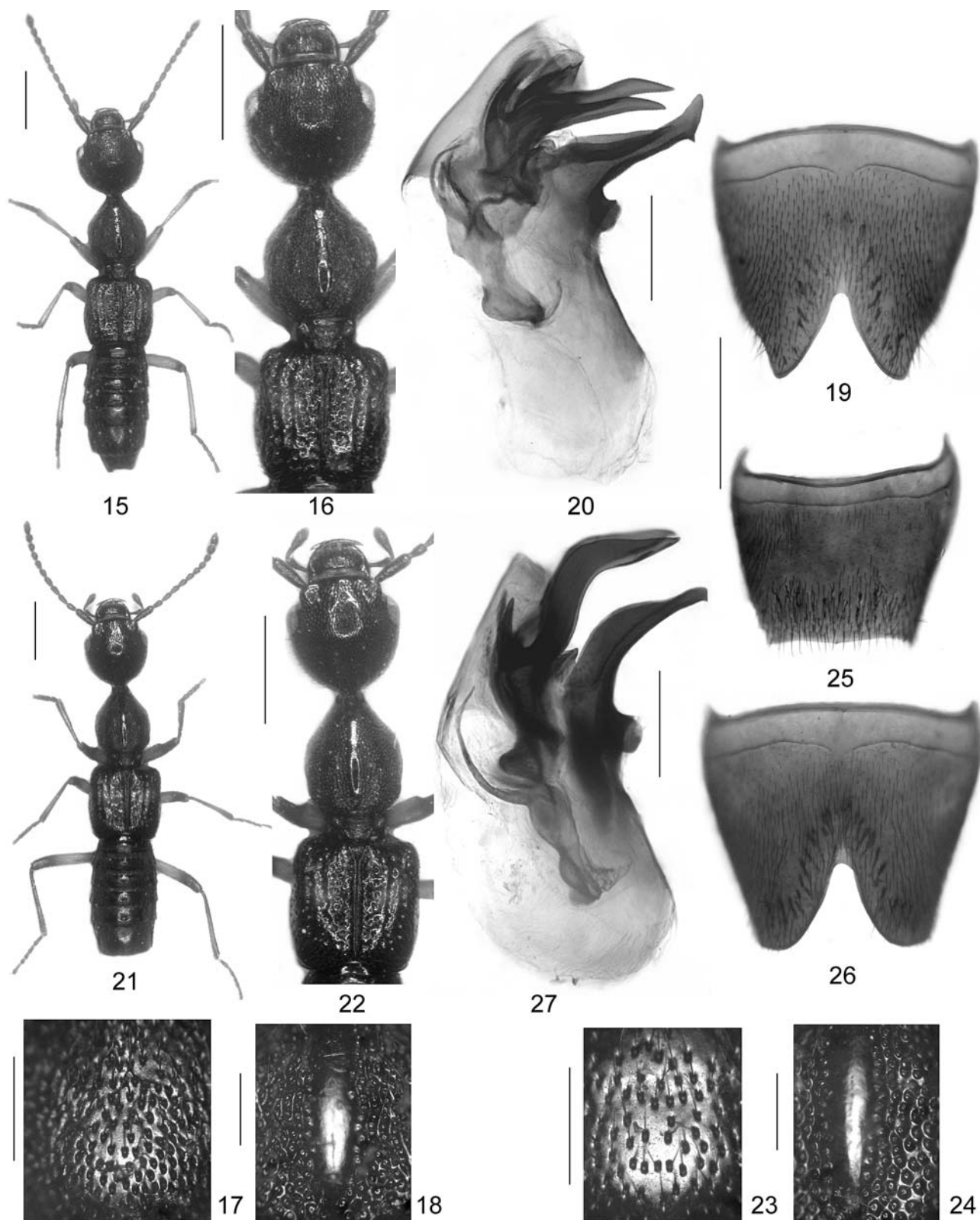
♂: posterior margin of tergite VIII weakly bisinuate, not distinctly concave (Fig. 25); sternite VIII weakly transverse, posterior excision less deep and basally less acute than in *S. wrasei* (Fig. 26); aedeagus 1.0 mm long, ventral process of very distinctive shape, apical internal structures distinctly angled in the middle (Fig. 27).

Comparative notes

Among the species of the *S. signatus* group, *S. angulatus* is characterised particularly by the morphology of the aedeagus and by the shape of the posterior excision of the male sternite VIII. It is additionally distinguished from the syntopic *S. denticulatus* by the darker coloration (especially of the legs), the finer and distinctly less dense punctuation of the head, and by the more regular, somewhat less dense punctuation and the less uneven surface of the pronotum. The aedeagus somewhat resembles that of *S. kambaitiensis*, but is distinguished by the more strongly curved ventral process; moreover, the posterior excision of the male sternite VIII is basally much less acute. For illustrations of *S. kambaitiensis* see ROUGEMONT (1986a).

Distribution and natural history

The type locality is situated in the Laobie Shan, Yunnan (Fig. 1), and identical to that of *S. denticulatus*. The holotype was sifted from leaf litter and moss in a degraded secondary deciduous forest at an altitude of nearly 2400 m.



Figs. 15–27. *Stilicoderus denticulatus* (15–20) and *S. angulatus* (21–27). – 15, 21. Habitus. 16, 22. Forebody. 17, 23. Median dorsal portion of head. 18, 24. Posterior median portion of pronotum. 19, 26. Male sternite VIII. 20, 27. Aedeagus in lateral view. 25. Male tergite VIII. – Scale bars: 1.0 mm (15–16, 21–22), 0.5 mm (19, 25–26), 0.2 mm (17–18, 20, 23–24, 27).

Stilicoderus lomholdti (Rougemont, 1986)

(Fig. 1)

Material examined

China: 12 ♂♂, 13 ♀♀ [3 teneral], Yunnan, Lincang Pref., 33 km SSW Lincang, Bang-ma Shan, 23°36'N, 100°00'E, 2150 m, deciduous forest remnant, litter and dead wood sifted, 11.IX.2009, leg. SCHÜLKE (cSch, cAss).

Comment

The original description of *S. lomholdti* is based on a unique male from “Thailand, Chiang Mai Prov., Doi Suthep N. P., Doi Pui summit, 1650 m” (ROUGEMONT 1986a). The above specimens represent the first record from China. The currently known distribution is mapped in Fig. 1.

discalis group*Stilicoderus discalis* Fauvel, 1895

Material examined

Laos: 27 exs. [partly slightly teneral], Champasak province, Bolaven Plateau, Muang Paxong, Ban Hoyayteuy, Mt. Phu Din, 15°03'N, 106°17'E, 1100 m, disturbed primary rainforest, sifted from leaf litter, 13.–14.VI.2008, leg. SOLODOVNIKOV & PEDERSEN (ZMUC, cAss); 3 exs., Champasak province, Bolaven Plateau, Muang Paxong, Ban Thongvay, 15°14'N, 106°32'E, 1000–1200 m, disturbed primary rainforest, sifted from leaf litter, 7.–16.

VI.2008, leg. SOLODOVNIKOV & PEDERSEN (ZMUC); 6 exs., Champasak province, Bolaven Plateau, Muang Paxong, Ban Thongvay, 15°14'N, 106°32'E, 1200 m, edge of disturbed primary rainforest, flight interception trap, 8.–16.VI.2008, leg. SOLODOVNIKOV & PEDERSEN (ZMUC, cAss); 1 ex., Vientiane province, Phou Khao Khouay, 18°20'N, 102°49'E, 700–800 m, strongly disturbed primary forest, near forest edge, flight interception trap, 26.–31.V.2008, leg. SOLODOVNIKOV & PEDERSEN (cAss).

Thailand: 1 ♂ [without aedeagus], Chaiyaphun, Phu Khieo-Bung Mon, 1000 m, pitfall trap, 25.I.1989, leg. ANDERSEN & READ (ZMUC); 1 ♀, Chiang Mai, Doi Suthep, 1580 m, leaf litter, 13.XI.1995, leg. WUNDERLE (cAss).

Comment

This widespread species was previously known from Myanmar, Thailand, and Vietnam (ROUGEMONT 1986a, 1996). The above specimens from Laos represent new country records.

variolosus group*Stilicoderus variolosus* Coiffait, 1975

(Fig. 28)

Material examined

Nepal: 17 exs., Manaslu range, S Bara Pokhari Lekh, above Bhachok Goan village, 28°14'N, 84°25'E, 1600–1800 m, 29.IV.2005, leg. SCHMIDT (NME, cAss); 2 exs., Dolakha District, Gyalung, 1800 m, 6.VI.2000, leg. SCHAWALLER (SMNS, cAss);

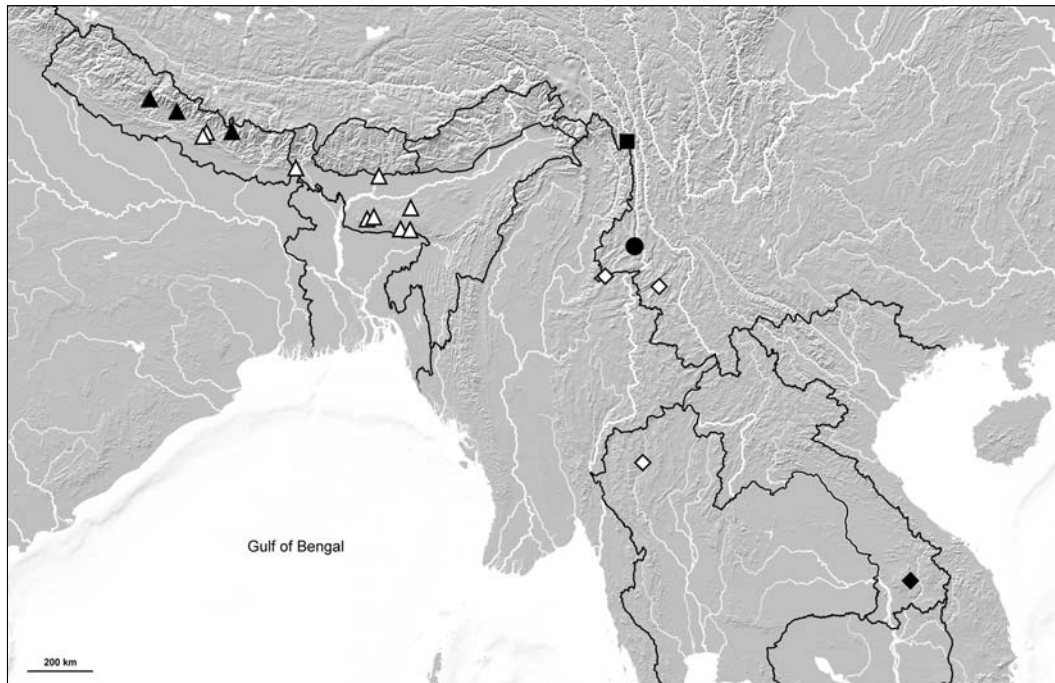


Fig. 28. Distribution of species of the *Stilicoderus variolosus* group: *S. variolosus* (triangles); *S. trapezeiceps* (diamonds); *S. barbulator* (square); *S. tuberculatus* (circle). – Filled symbols: examined records; open symbols: literature records.

3 ♂♂, 2 ♀♀, southeastern Dhaulagiri Himal, Rahughat Khola valley, river bank S Dwari, 28°31'N, 83°31'E, 1850 m, 10.V.2002, leg. JÄGER (SNSD, cAss).

Comment

According to ROUGEMONT (1985a, 1986a, 1996), *S. variolosus* is widespread in the Himalaya. The currently known distribution is mapped in Fig. 28.

Stilicoderus trapezeiceps (Rougemont, 1986) (Fig. 28)

Material examined

Laos: 5 exs., Champasak province, Bolaven Plateau, Muang Paxong, Ban Thongvay, 15°14'N, 106°32'E, 1200 m, edge of disturbed primary rainforest, flight interception trap, 8.–16.VI.2008, leg. SOLODOVNIKOV & PEDERSEN (ZMUC, cAss); 3 exs. [1 slightly teneral], Champasak province, Bolaven Plateau, Muang Paxong, Ban Thongvay, 15°14'N, 106°32'E, 1000–1200 m, disturbed primary rainforest, flight interception trap, 7.–16.VI.2008, leg. SOLODOVNIKOV & PEDERSEN (ZMUC, cAss).

Comment

This species was previously known from Thailand and Yunnan (China) (ROUGEMONT 1996). The above specimens represent the first records from Laos. The currently known distribution is mapped in Fig. 28.

Stilicoderus tuberculosus n. sp. (Figs. 28–36)

Type material

Holotype ♂: “China: Yunnan [CH07-11], Baoshan Pref., Gaoligong Shan, nr. Xiaoheishan N. R., 35 km SE Tengchong, 2110 m, 24°50'16"N, 98°45'43"E, decid. forest litter, sifted, 30.V.2007, M. SCHÜLKE / Holotypus ♂ *Stilicoderus tuberculosus* sp. n. det. V. ASSING 2012” (cAss).

Paratypes: 1 ♂, 2 ♀♀: same data as holotype (cSch); 1 ♂, 2 ♀♀: “China: Yunnan, Baoshan Pref., Gaoligong Shan, W Pass 35 km SE Tengchong, 2100 m, 24°50'18"N, 98°45'43"E, devast. prim. dec. forest, litter, wood, mushrooms sifted, 25.VIII.2009, leg. M. SCHÜLKE [CH09-06]” (cSch, cAss); 2 ♀♀ [1 teneral]: same data as before, but “28.VIII.2009 ... [CH09-06a]” (cSch, cAss).

Etymology

The specific epithet (Latin, adjective) alludes to the presence of a distinct tubercle on the male sternite VIII.

Description

Body length 5.7–7.0 mm; length of forebody 3.5–4.0 mm. Habitus as in Fig. 29. Coloration: body blackish; legs blackish-brown to blackish, with the tarsi and often also the tibiae slightly paler; antennae dark-brown, with antennomere I blackish.

Head 1.00–1.07 times as broad as long (Fig. 30), behind eyes broadly convex in dorsal view; punctation very dense, relatively fine, and defined; interstices noticeable, but narrower than diameter of punctures, without microsculpture (Fig. 31). Eyes large, approximately half as long as the distance from posterior margin of eye to posterior constriction. Anterior margin of labrum with five teeth; middle tooth pronounced and situated in median incision; internal lateral tooth pronounced; external lateral tooth minute and situated at some distance from internal lateral tooth.

Pronotum (Fig. 30) 1.05–1.10 times as long as broad and 0.90–0.95 times as wide as head; punctation granulose and very dense (Fig. 32); surface matt, except for the moderately shiny impunctate median band.

Elytra 0.90–0.95 times as long as, and distinctly broader than pronotum (Fig. 30); punctation composed of very dense granulose ground punctation and interspersed, somewhat irregularly spaced larger punctures (Fig. 33); surface matt. Hind wings fully developed. Tarsi short; metatarsomere I barely as long as the combined length of II and III; tarsomeres IV simple.

Abdomen as broad as, or slightly narrower than elytra; punctation very fine and very dense; interstices with distinct microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex.

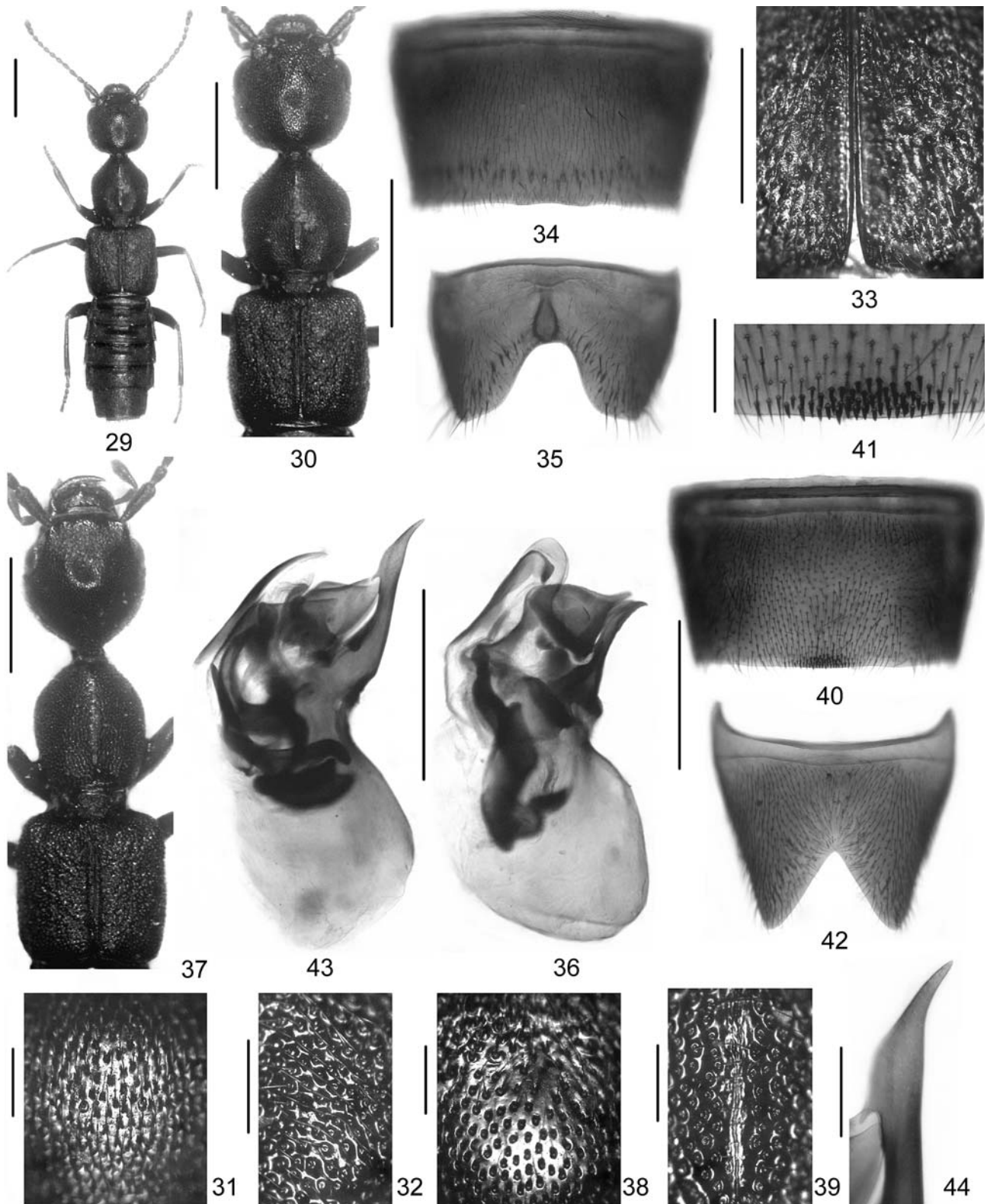
♂: posterior margin of sternite VII weakly and broadly produced in the middle (Fig. 34); sternite VIII anteriorly with distinct oblong tubercle and with pronounced, somewhat asymmetric, and almost U-shaped posterior excision, its depth more than half the length of sternite (Fig. 35); aedeagus approximately 0.9 mm long, with a pair of apical internal structures of distinctive shape, and with narrow ventral process in lateral view (Fig. 36).

Comparative notes

Based on the morphology of the aedeagus (shape of apical internal structures and of ventral process), *S. tuberculosus* belongs to the *S. variolosus* group, which previously comprised seven species. It is readily distinguished from other representatives of this group by the modifications of the male sternites VII and VIII, as well as by the morphology of the aedeagus. It is additionally separated from the widespread *S. variolosus* by its larger size, much larger, longer, and completely matt elytra, as well as by the completely different elytral punctation.

Distribution and natural history

The species was discovered in two adjoining localities in the Gaoligong Shan, Yunnan, China (Fig. 28). The specimens were sifted from leaf litter of deciduous trees at an altitude of approximately 2100 m. One specimen collected in August is teneral.



Figs. 29–44. *Stilicoderus tuberculatus* (29–36) and *S. barbulator* (37–44). – 29. Habitus. 30, 37. Forebody. 31, 38. Median dorsal portion of head. 32. Postero-lateral portion of pronotum. 33. Posterior median portion of elytra. 34, 40. Male sternite VII. 35, 42. Male sternite VIII. 36, 43. Aedeagus in lateral view. 39. Posterior median portion of pronotum. 41. Posterior median portion of male sternite VII. 44. Apex of ventral process of aedeagus in lateral view. – Scale bars: 1.0 mm (29–30, 37), 0.5 mm (33–36, 40, 42–43), 0.1 mm (31–32, 38–39, 41, 44).

Stilicoderus barbulator n. sp.
(Figs. 28, 37–44)

Type material

Holotype ♂: “China: N-Yunnan [C2005-12], Nujiang Lisu Aut. Pref., Gongshan Co., Gaoligong Shan, 2500 m, 27°45.404'N, 98°35.749'E, litter & debris [sic] at snowfield sifted during rain, 19.VI.2005, M. SCHÜLKE / Holotypus ♂ *Stilicoderus barbulator* sp. n. det. V. ASSING 2012” (cAss).

Paratypes: 1 ♂, 4 ♀♀: same data as holotype (cSch, cAss).

Etymology

The specific epithet is an adjective derived from the Latin noun *barbula*, diminutive of *barba* (beard), and alludes to the cluster of modified setae on the male sternite VII.

Description

Body length 5.9–7.5 mm; length of forebody 3.8–4.2 mm. Coloration: body blackish; legs brown to dark-brown, usually with blackish-brown to blackish femora; antennae brown with infusate antennomere I.

Head (Fig. 37) oblong, 1.10–1.15 times as broad as long, somewhat produced posteriorly; lateral margins smoothly curving towards posterior constriction, posterior angles completely obsolete; punctation dense, relatively fine, and defined (Fig. 38), similar to that of *S. tuberculatus*; interstices noticeable, but narrower than diameter of punctures, without microsculpture. Eyes moderately large and weakly projecting from lateral contours of head, approximately one-third as long as the distance from posterior margin of eye to posterior constriction. Anterior margin of labrum with four distinct teeth; middle tooth almost completely reduced; internal lateral tooth long; external lateral tooth minute and situated at some distance from internal lateral tooth.

Pronotum (Fig. 37) approximately 1.1 times as long as broad and 0.90–0.95 times as wide as head; punctation granulate and very dense (Fig. 39); surface (almost) matt; impunctate median band of reduced length, usually present only in posterior half.

Elytra (Fig. 37) approximately 0.95 times as long as, and distinctly broader than pronotum; punctation composed of very dense granulate ground punctation and interspersed, somewhat irregularly spaced larger punctures; interstices very narrow, but noticeable and glossy. Hind wings fully developed. Tarsi moderately slender; metatarsomere I approximately as long as the combined length of II and III; tarsomeres IV simple.

Abdomen approximately as broad as elytra; punctation very fine and dense; interstices with distinct microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII weakly convex.

♂: sternite VII with almost straight posterior margin (Fig. 40), near middle of posterior margin with cluster of short modified setae (Fig. 41); sternite VIII with broad and deep, distinctly V-shaped posterior excision, its depth nearly half the length of sternite (Fig. 42); aedeagus approximately 1.15 mm long, with a pair of apical internal structures of distinctive shape, and with rather long ventral process (Fig. 43); apex of ventral process acute and dorsally with tooth-like process (Fig. 44).

Comparative notes

Like the preceding species, *S. barbulator* belongs to the *S. variolosus* group. It is characterised particularly by the modifications of the male sternites VII and VIII, as well as by the morphology of the aedeagus. It is additionally distinguished from the externally similar and geographically close *S. tuberculatus* by the completely different shape of the head (posteriorly distinctly produced), the smaller and less protuberant eyes, the more coarsely granulate punctation of the pronotum, the more coarsely and less densely granulate punctation of the elytra, the more shiny surface of the elytra, and the longer and more slender tarsi. From the widespread *S. variolosus*, it additionally differs by larger body size, the posteriorly more strongly produced head, less convex eyes, the coarser punctation of the pronotum, larger and broader elytra, and by the completely different elytral punctation.

Distribution and natural history

The type locality is situated in the Gaoligong Shan, Yunnan, China (Fig. 28). The specimens were sifted from leaf litter and debris near a snowfield at an altitude of 2500 m.

minor group

Stilicoderus minor Cameron, 1931
(Fig. 45)

Material examined

Nepal: 4 exs., south slope of Dhaulagiri Himal, N Banduk village, 28°28'N, 83°35'E, 1900–2300 m, 6.V.2009, leg. SCHMIDT (NME, cAss).

Comment

This species was previously known from northern India (Darjeeling), Bhutan, China (Yunnan, Gansu, Shaanxi), and eastern Nepal (CAMERON 1931, COIFFAIT 1978, ROUGEMONT 1985a, 1986a, 1996). The above specimens represent the westernmost record. The currently known distribution is mapped in Fig. 45.

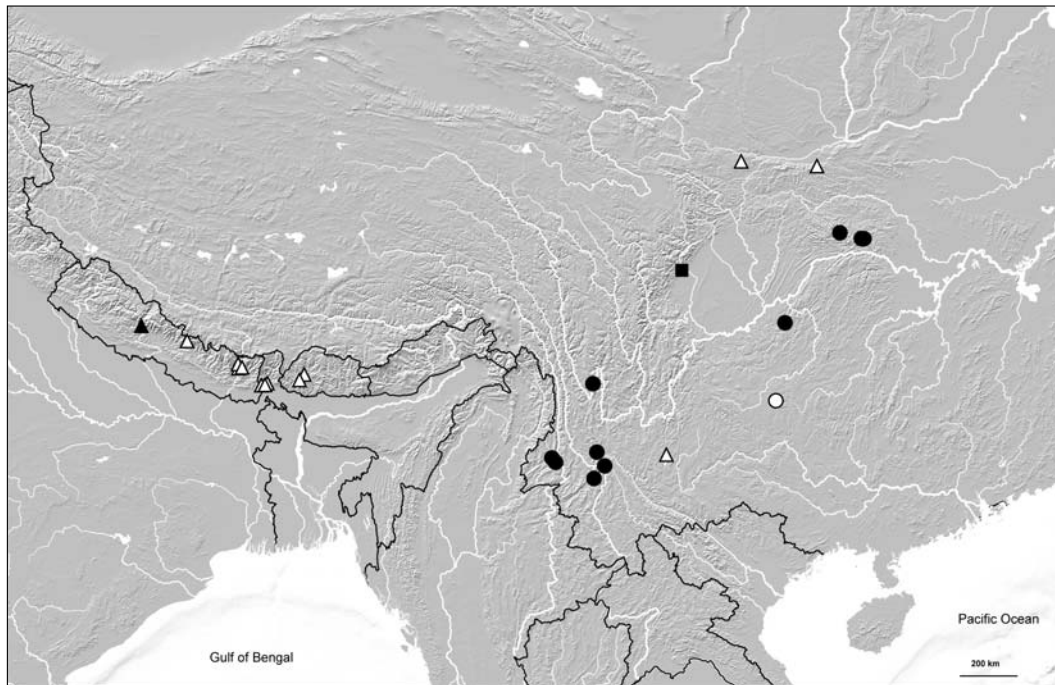


Fig. 45. Distribution of species of the *Stilicoderus minor* group: *S. minor* (filled triangle: examined record; open triangles: literature records); *S. aquilinus* (square); *S. psittacus* (filled circles). Open circle: doubtful literature record of *S. exiguitas* (probably referring to *S. psittacus*).

Stilicoderus exiguitas Shibata, 1974
(Figs. 46, 47)

Stilicoderus exiguitas SHIBATA, 1974: 12 ff.

Material examined

Taiwan: 1 ♂, Chia Hsien, Fenchihu, 6.VIII.1976, leg. SHIBATA (cAss).

Comment

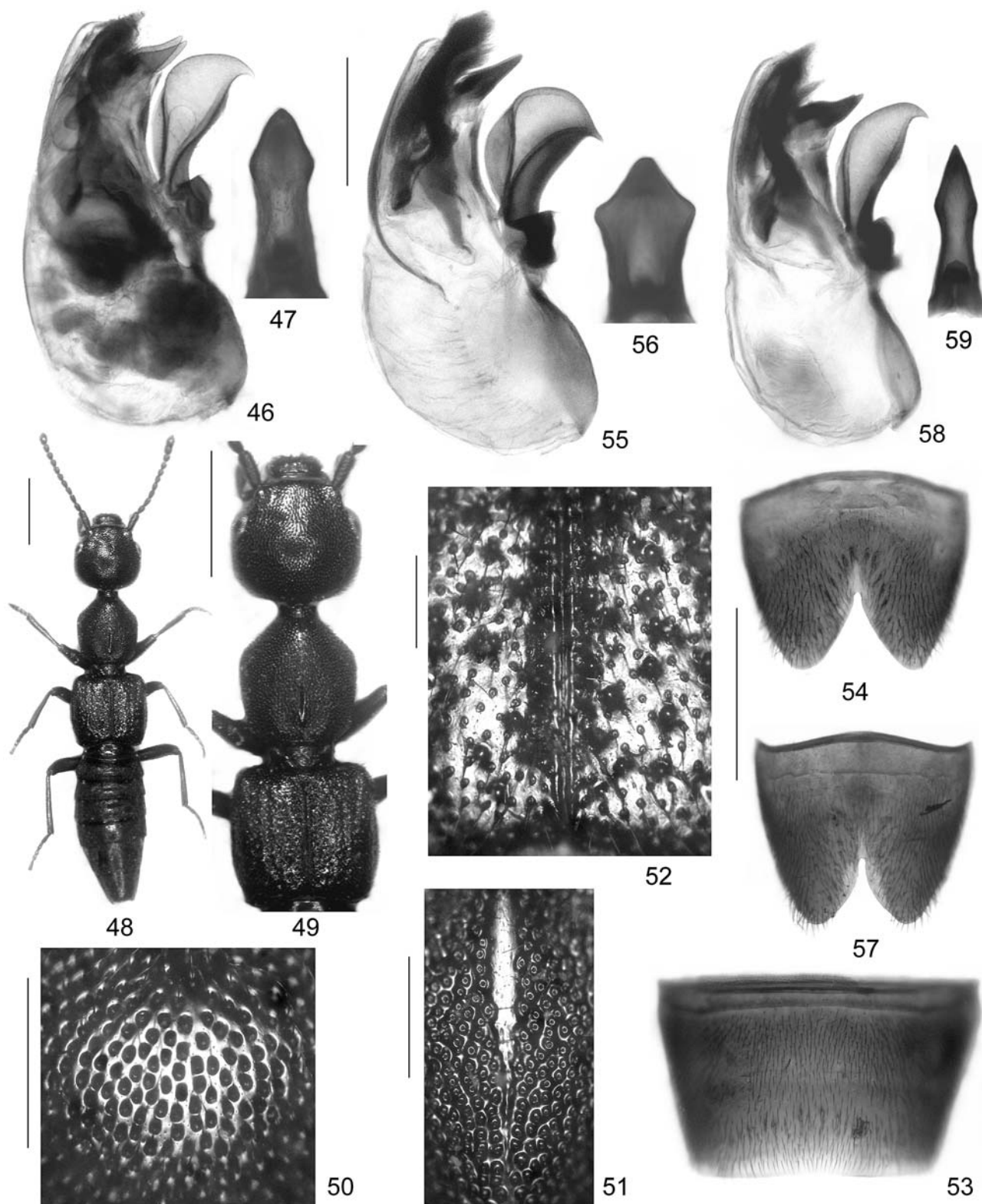
This species is probably endemic to Taiwan; for records see SHIBATA (1974, 2002). Previous records from Guizhou, mainland China (ROUGEMONT 1986a, 1996), are likely to refer to *S. psittacus* (Fig. 45) and require confirmation. The aedeagus of the above male from Taiwan is illustrated in Figs. 46, 47.

Stilicoderus psittacus n. sp.
(Figs. 45, 48–56)

Type material

Holotype ♂: “China: Border Shaanxi – Sichuan (Daba Shan), pass 20 km SSE Zhenping, 1700–1800 m, 31°44'N, 109°35'E, 9.VII.2001, leg. M. SCHÜLKE [C01-07] / young dry mixed forest, field edge, small creek valley, moss (sifted) [C01-07] / Holotypus ♂ *Stilicoderus psittacus* sp. n. det. V. ASSING 2012” (cAss).

Paratypes: 1 ♂, 4 ♀♀: same data as holotype (cSch); 1 ♂, 1 ♀: “China: SE Sichuan, Jinpo Shan, 29°01'N, 107°14'E, 1750 m, 27.VI.1998, A. SMETANA [C71] / 1998 China Expedition, J. FARKAČ, D. KRÁL, J. SCHNEIDER & A. SMETANA” (cSme, cAss); 1 ♀: “China: W-Hubei (Daba Shan), creek valley 8 km NW Muyuping, 31°29'N, 110°22'E, 1550–1650 m, 18.VII.2001, leg. M. SCHÜLKE [C01-16A]” (cSch); 1 ♂: “China: W-Hubei Daba Shan, mtn. range NE Muyuping, crk. valley / 4 km N Muyuping, 1700 m, 21.VII.01, A. SMETANA [C116]” (cSme); 1 ♂, 3 ♀♀ [1 ♀ teneral]: “China: Yunnan, Lincang Pref., Xue Shan, 48 km N Lincang, 2070 m, 24°19'03"N, 100°07'13"E, forest remnant, N-slope, litter & mushrooms sifted, 12.IX.2009, leg. M. SCHÜLKE [CH09-45]” (cSch, cAss); 1 ♀: “China (Yunnan) Lincang Pref., Wuliang Shan, old pass road, W-side, 2200 m (small creek valley with primary forest remnant, litter/debris sifted), 24°42'58.6"N, 100°29'52.0"E, 12.IX.2009 D. W. WRASE [47]” (cSch); 1 ♀, same data, but “16.IX.2009, leg. M. Schülke [CH09-47a]” (cSch); 1 ♂, 1 ♀: “China: Yunnan [CH07-16A], Baoshan Pref., mountain range 14 km E Tengchong, 1850 m, 25°00'28"E, 98°38'07"E, field edge, compost and debris sifted, 1.VI.2007, M. SCHÜLKE” (cSch, cAss); 1 ♀: “China: Yunnan, Baoshan Pref., Gaoligong Shan, 33 km SE Tengchong, 2150 m, 24°51'22"N, 98°45'36"E, devast. primery [sic] deciduous forest, litter, wood, mushrooms sifted, 26.VIII.2009, leg. M. SCHÜLKE [CH09-08]” (cSch); 1 ♂: “China (Yunnan), Dali Bai Auton. Pref., Wuliang Shan, 9 km SW Weishan, 2450–2500 m, 25°10'14"N, 100°14'22"E (W. slope, sec. oak/pine for., pasture, und. stones), 13.VI.2007 D. W. WRASE [35]” (cSch); 1 ♂, 6 ♀♀: “China: Yunnan province, 1 km W of Haba, 19.VI.2007, Haba Xueshan Mts., 27°22.3'N, 100°07.7'E, 2750 m, J. HAJEK & J. RŮŽICKA leg. [CH36] / sifted wet detritus



Figs. 46–59. *Stilicoderus exiguitas* (46–47), *S. psittacus* (48–56), and *S. aquilinus* (57–59). **46, 55, 58.** Aedeagus in lateral view. **47, 56, 59.** Ventral process of aedeagus in ventral view. **48.** Habitus. **49.** Forebody. **50.** Median dorsal portion of head. **51.** Median portion of pronotum. **52.** Posterior median portion of elytra. **53.** Male sternite VII. **54, 57.** Male sternite VIII. – Scale bars: 1.0 mm (48–49), 0.5 mm (53–54, 57), 0.2 mm (46–47, 50–52, 55–56, 58–59).

and leaves under rocks, margin of mixed forest (with dominant *Pinus*, *Aesculus*) near small stream, close to village" (cSch).

Etymology

The specific epithet is a noun (Latin: parrot) in apposition and refers to the shape of the ventral process of the aedeagus, which somewhat resembles the beak of a parrot.

Description

Body length 5.5–6.2 mm; length of forebody 3.1–3.7 mm. Habitus as in Fig. 48. Coloration: head, pronotum, and abdomen blackish; elytra blackish with an extensive, oblique, reddish humeral spot, this spot usually extending mediad just short of the suture, more rarely smaller; legs brown with blackish-brown femora; antennae brown with infusate antennomere I.

Head (Fig. 49) weakly transverse, approximately 1.05 times as broad as long, behind eyes smoothly convex in dorsal view; punctation moderately coarse, dense, and defined; interstices without microsculpture, distinctly narrower than punctures (Fig. 50). Eyes moderately large, slightly less than half as long as the distance from posterior margin of eye to posterior constriction.

Pronotum (Fig. 49) 1.05–1.10 times as long as broad and approximately 0.9 times as wide as head; punctation dense, rather coarse, and distinctly granulose (Fig. 51); midline with impunctate glossy median band reaching neither anterior nor posterior margins.

Elytra 0.80–0.85 times as long as, and distinctly broader than pronotum; punctation composed of coarse punctures with interspersed, somewhat granulose micropunctures (Fig. 52); interstices without microsculpture. Hind wings fully developed. Metatarsomere I approximately as long as the combined length of II and III.

Abdomen narrower than elytra; punctation very fine and very dense; interstices with distinct microreticulation; posterior margin of tergite VII with palisade fringe.

♂: sternite VII not distinctly modified (Fig. 53); sternite VIII with deep and apically narrow posterior excision (Fig. 54); aedeagus approximately 0.6 mm long, compact, and with ventral process of characteristic shape (Figs. 55, 56).

Comparative notes

Based on the similarly derived general shape of the ventral process of the aedeagus, *S. psittacus* is a close relative of *S. minor* Cameron, 1931 (West Bengal, Bhutan) and *S. exiguitas* Shibata, 1974 (Taiwan). It is reliably distinguished from both of them by the morphology of the aedeagus. That of *S. minor* is smaller and has a shorter and apically more angulate ventral process; that of the externally extremely similar *S. exiguitas* has a more slender (particularly in ventral view) and less strongly curved ven-

tral process (lateral view). For illustrations of the aedeagi of *S. minor* and *S. exiguitas* see ROUGEMONT (1986), SHIBATA (1974), and Figs. 46, 47. In addition, *S. exiguitas* has less strongly infusate femora.

Distribution and natural history

This species is evidently widespread in China, where it was found in numerous localities in Sichuan, Shaanxi, Hubei, and Yunnan provinces (Fig. 45). It seems likely that previous records of *S. exiguitas* from Guizhou (ROUGEMONT 1996) refer to this species. The examined specimens were collected by sifting leaf litter and debris in various forest biotopes and in a field margin at altitudes of 1550–2750 m. One specimen found in September is teneral.

Stilicoderus aquilinus n. sp.

(Figs. 45, 57–59)

Type material

Holotype ♂: "China: Sichuan (17), Qingcheng-Shan, NW Chengdu, 650–700 m, 30.53.57N, 103.32.23E, 3.–4.VI.1997, M. SCHÜLKE / *Stilicoderus exiguitas* Shib. det. 1997 G. DE ROUGEMONT / *Stilicoderus exiguitas* det. M. SCHÜLKE 1997 / Holotypus ♂ *Stilicoderus aquilinus* sp. n. det. V. ASSING 2012" (cAss).

Paratype ♀: same data as holotype (cSch).

Etymology

The specific epithet (Latin, adjective: of an eagle) alludes to the resemblance of the ventral process of the aedeagus to the beak of an eagle.

Description

Body length 5.4–6.2 mm; length of forebody 3.3–3.4 mm. External characters, except for the somewhat coarser punctation of the head, as in *S. psittacus* and *S. exiguitas*.

♂: sternite VIII of similar shape as in *S. psittacus* and *S. exiguitas* (Fig. 57); aedeagus approximately 0.55 mm long, shaped as in Figs. 58, 59.

Comparative notes

The similar external and male sexual characters suggest that *S. aquilinus* is very closely related to *S. exiguitas* and *S. psittacus*. It is distinguished from both species by the somewhat coarser punctation of the head (some overlap with *S. psittacus*) and by the morphology of the aedeagus, particularly the shape of the ventral process and the more strongly sclerotised apical internal structures. In *S. exiguitas*, the ventral process is stouter, apically convex (not distinctly oblique) in lateral view, and apically shorter and broader in ventral view. In *S. psittacus*, the ventral process is much broader, stouter and more strongly curved in lateral view.

Distribution and natural history

The type locality is situated in the Qingcheng Shan, central Sichuan province, China (Fig. 45). The relatively low altitude (650–700 m) suggests that the species may be widespread in China.

japonicus group

Stilicoderus japonicus Shibata, 1968

(Fig. 60)

Stilicoderus japonicus SHIBATA, 1968: 8 f.

Stilicoderopsis malaisei SCHEERPELTZ, 1965: 183 ff., secondary homonym; **n. syn.**

Stiliderus scheerpeltzi ROUGEMONT, 1986a: 185, replacement name; **n. syn.**

Material examined

Japan: 2 exs., Hokkaido, Ebetsu city, Nopporo Virgin Forest, sifted, 5.V.2006, leg. LACKNER (cAss); 1 ex., Hokkaido, Nopporo Virgin Forest, sifted, X.2009, leg. LACKNER (cAss); 1 ex., Hokkaido, Nopporo Virgin Forest, X.2008, leg. LACKNER (cAss); 1 ex., Hokkaido, 7.VI.2008, leg. LACKNER (cAss); 8 exs., Hokkaido, Nopporo Forest Park, 24.V. & 5.VI.2008, leg. LACKNER (cAss); 1 ♀, Honshu, Shiga, Hourai mt., Kojorou valley, 4.V.1994, leg. ITO (SDEI).

China: 1 ex., Shaanxi, Foping Nat. Res., Panda area, 33°45'N, 107°48'E, 1600 m, 6.–11.IV.1999, leg. SINAIEV & PLUTENKO (cSch); 1 ex., Shaanxi, Foping Nat. Res., 33°51'N, 107°57'E,

1600 m, 20.IV.–11.V.1999, leg. SINAIEV & PLUTENKO (cSch); 1 ex., S-Shaanxi, Qinling Shan, 115 km WSW Xi'an, river bank above Houzhenzi, 33°50'N, 107°47'E, 1450 m, mixed deciduous forest, 5.VII.2001, leg. SCHÜLKE (cSch); 1 ex., S-Shaanxi, Qinling Shan, 105 km SW Xi'an, pass on road Zhouzhi–Foping, N-slope, 30°46'N, 107°58'E, 1700 m, small creek valley, mixed deciduous forest, moss sifted, 3.VII.2001, leg. SCHÜLKE (cSch); 5 exs., Shaanxi/Sichuan, Daba Shan, pass 20 km SSE Zhenping, 31°44'N, 109°35'E, 1700–1800 m, small creek valley, young mixed forest, leaf litter and moss sifted, 9.–12.VII.2001, leg. SCHÜLKE & WRASE (cSch, cAss); 2 ♂♂, 2 ♀♀, SE-Sichuan, Jinpo Shan, 29°01'N, 107°14'E, 1750 m, 26.VI.1998, leg. SMETANA [C69] (cSme, cAss); 1 ♂, 1 ♀, W-Henan, Funiu Shan, Baotianman, 33°31'N, 111°56'E, 1500–1750 m, 6.–7.VII.2006, leg. TURNA (NHMW, cAss); 4 exs., W-Hubei, Daba Shan, 12 km NW Muyuping, pass E Mt. Shennongjia, 31°30'N, 110°21'E, 1950 m, 16.VII.2001, leg. SCHÜLKE (cSch, cAss); 1 ex., same data, but 22.VII.2001 (cSch); 5 exs., N-Yunnan, Diqing Tibet Aut. Pref., Deqin Co., Meili Xue Shan, E-side, 12 km SW Deqin, 28°26'N, 98°49'E, 2890 m, creek valley, mixed forest with bamboo, 9. & 13.VI.2005, leg. WRASE (cSch, cAss); 2 exs., Yunnan, Nujiang Lisu Aut. Pref., Gaoligong Shan, side valley 18 km NW Liuku, 25°58'N, 98°42'E, 2590 m, degraded primary forest, litter sifted, 9.–10.VI.2007, leg. WRASE (cSch, cAss); 1 ex., Nujiang Lisu Aut. Pref., Nu Shan, 7 km NNW Coajian, 25°43'N, 99°08'E, 2420 m, secondary pine forest with shrubs, litter and bark sifted, 11.VI.2007, leg. SCHÜLKE (cSch).

Comment

According to ROUGEMONT (1986a), the type material of *Stilicoderopsis malaisei*, a secondary homonym he replaced with the nomen novum *Stiliderus scheerpeltzi*, is

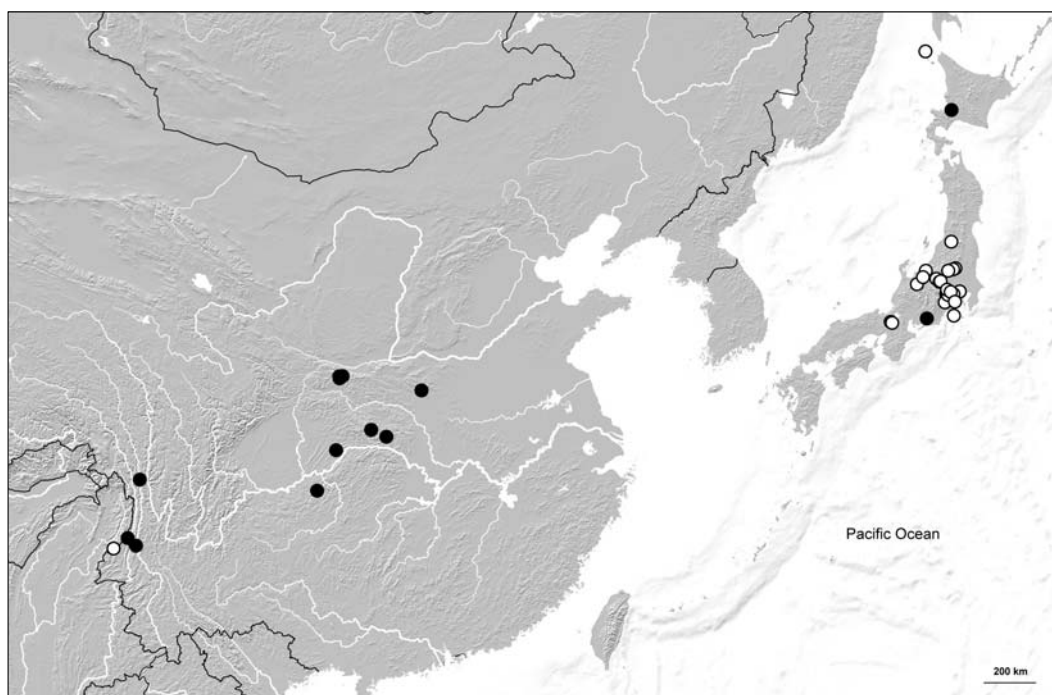


Fig. 60. Distribution of *Stilicoderus japonicus*. – Filled circles: examined records; open circles: literature records.

distinguished from *S. japonicus* by larger size and minor differences in head shape and punctation. An examination of the above material, however, revealed that these characters are variable and that the types of *S. scheerpeltzi* fall within the range of intraspecific variation of *S. japonicus*. Above all, the aedeagus and the shape of sternite VIII of the holotype (of *S. malaisei*) are identical to that of *S. japonicus* males from Japan, as can be inferred from the illustrations provided by ROUGEMONT (1986a), so that *S. scheerpeltzi* (and its synonym *Stilicoderopsis malaisei*) are placed in synonymy with *S. japonicus*.

The distribution of *S. japonicus* ranges from eastern Myanmar across China to Japan (Fig. 60). For additional records from Japan see SHIBATA (1968), WATANABE (1994), and ROUGEMONT (1985a, 1986a, 1996).

Stilicoderus formosanus Rougemont, 1996

Material examined

Taiwan: 8 exs., Chiayi Co., Alishan, road 18, km 85, 2000 m, forest litter, 11.IV.2009, leg. Vít (cAss); 1 ex., Chiayi Co., Alishan, National Scenic Area, road 18, km 84, 2100 m, in decaying trunk, 8.I.2009, leg. Vít (cAss); 1 ex., Hsinchu Co., Hsinkuang trib. vill., road 60, km 48, Jienshih, 1800 m, mountain forest, 25.III.2008, leg. Vít (cAss).

China: 2 exs., Fujian, Wuyi Shan Nat. Res., Sangan env., 900 m, 30.V.–12.VI.2001, leg. HLAVÁČ & COOTER (cAss).

Comment

This species was previously known only from Taiwan (ROUGEMONT 1996, SHIBATA 2002). The above material from Fujian represents the first record from China. SMETANA (2004) lists the species from Sichuan, but this record refers to the following species.

Stilicoderus continentalis Rougemont, in litt.

Material examined

China: 1 ex., Sichuan, Qingcheng Shan, NW Chengdu, 30°54'N, 103°32'E, 3.–4.VI.1997, leg. SCHÜLKE (cAss).

Comment

According to a manuscript made available to me by GUILLAUME DE ROUGEMONT, this species will be described in the near future and the above specimen will be a paratype.

granulifrons group

Stilicoderus granulifrons (Rougemont, 1985)

Material examined

China: 3 ♂♂, 4 ♀♀ [1 ♀ teneral], Yunnan, Baoshan Pref., Gaoligong Shan, 32 km SE Tengchong, W pass, 24°51'N,

98°44'E, 1600 m, cleft with degraded primary forest, litter sifted, 28.VIII.2009, leg. SCHÜLKE & WRASE (cSch, cAss).

Comment

What was intended as the original description of *S. granulifrons* is based on unique female from “(Burma) Carin Ghecu” (ROUGEMONT 1986a). However, in describing and illustrating the male sexual characters of material from three localities in Meghalaya, northeastern India, ROUGEMONT (1985a) had already made the name available in an article published in the previous year. Additional records from Thailand and Nepal were reported by ROUGEMONT (1996). Judging from the illustrations of the aedeagi of males from different regions, however, *S. granulifrons* sensu ROUGEMONT (1996) may be composed of at least two species. The above specimens represent the first record from China.

aerosus group

Stilicoderus caprarius n. sp.

(Figs. 61–68)

Type material

Holotype ♂: “Indonesia W-Papua, ca. 130 km SE Kaimana, Omba (= Yamor) river, 10–20 km from coast / S4°05'49", E134°54'09", 10–20 m, 09.–11.II.2011, leg. A. WEIGEL 008 / Holotypus ♂ *Stilicoderus caprarius* sp. n. det. V. ASSING 2012” (NME).

Etymology

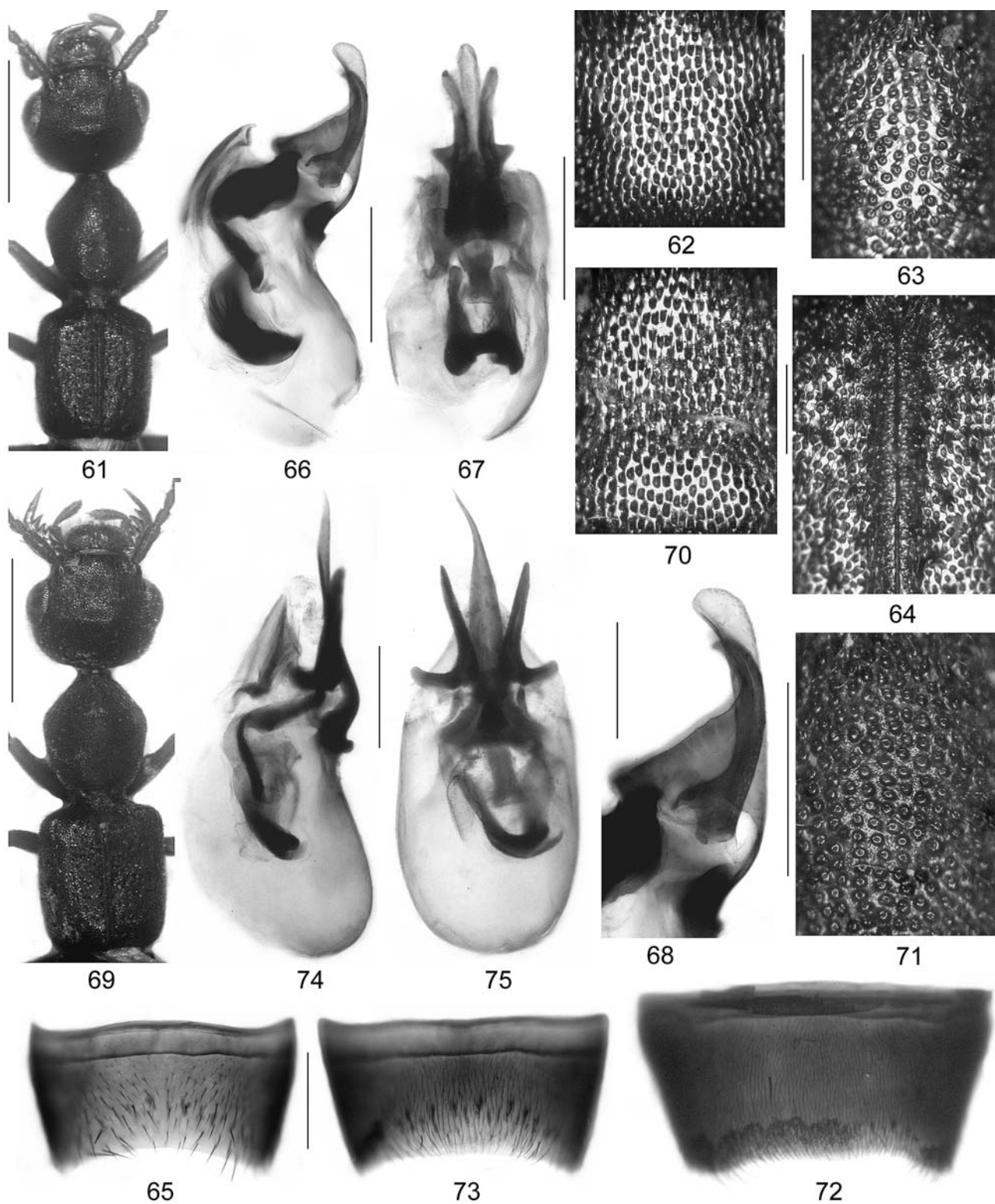
The specific epithet (Latin, adjective: goat-like, of a goat) alludes to the shape of the apical structures of the aedeagus.

Description

Body length 4.8 mm; length of forebody 2.9 mm. Coloration: body blackish-brown; legs and antennae reddish.

Head transverse, 1.2 times as broad as long, widest across eyes (Fig. 61), behind eyes smoothly curving towards posterior constriction; posterior angles completely obsolete; punctation dense, relatively fine, and defined, punctures somewhat oblong (Fig. 62); interstices without microsculpture, narrower than diameter of punctures. Eyes large and bulging, approximately 0.8 times as long as the distance from posterior margin of eye to posterior constriction.

Pronotum (Fig. 61) approximately 1.1 times as long as broad and 0.75 times as wide as head; punctation very dense, relatively fine, and granulate (Fig. 63); interstices very narrow, but noticeably glossy at higher magnification; midline without impunctate band.



Figs. 61–75. *Stilicoderus caprarius* (61–68) and *S. acutissimus* (69–75). – **61, 69.** Forebody. **62, 70.** Median dorsal portion of head. **63, 71.** Median portion of pronotum. **64.** Median portion of elytra. **65, 73.** Male sternite VIII. **66, 74.** Aedeagus in lateral view. **67, 75.** Aedeagus in ventral view. **68.** Apex of aedeagus in lateral view. **72.** Male sternite VII. – Scale bars: 0.5 mm (61, 69), 0.2 mm (62–68, 70–75).

Elytra slightly longer and distinctly broader than pronotum (Fig. 61); surface with dense, fine, granulose ground punctation and with irregularly spaced, laterally somewhat seriate, interspersed larger punctures (Fig. 64). Hind wings fully developed. Tarsi moderately slender; metatarsomere I shorter than the combined length of II and III; tarsomeres IV simple.

Abdomen narrower than elytra; punctation very fine and dense; posterior margin of tergite VII with palisade fringe.

♂: tergite VIII with weakly convex posterior margin; posterior margin of sternite VII broadly concave and with long black submarginal setae, these setae more numerous laterally than in the middle; sternite VIII strongly transverse and with broadly concave posterior margin (Fig. 65); aedeagus approximately 0.6 mm long, with weakly sclerotised and slender ventral process, and with distinctly sclerotised apical structures of distinctive shape (Figs. 66, 68).

Comparative notes

Based on external and the male sexual characters, *S. caprarius* belongs to the *S. aerosus* species group, which previously comprised four species from New Guinea and Australia (ROUGEMONT 1996); for characters separating this group from other species groups see ROUGEMONT (1986a). *Stilicoderus caprarius* is reliably distinguished from other *Stilicoderus* species particularly by the morphology of the aedeagus. It is additionally separated from other species of the *aerosus* group as follows:

from *S. aerosus* Last, 1964 (New Guinea) by smaller size (*S. aerosus*: 5.5–6.0 mm), the absence of a long pale pubescence on the forebody, and by the shape of the male sternite VIII (*S. aerosus*: sternite VIII with a small shallow emargination);

from *S. solitarius* Last, 1964 (New Guinea) by slightly smaller size (*S. solitarius*: 5.2 mm), the more transverse head, and by the larger and more convex eyes;

from *S. lasti* (Rougemont, 1986) (New Guinea) by smaller size (*S. lasti*: 5.5 mm), different head shape (*S. lasti*: posterior angles marked), and by the larger and more bulging eyes;

from *S. peninsularis* Rougemont, 1996 (Australia) by the absence of long pale pubescence on the head and pronotum, the more oblong pronotum, and by the modified male sternite VII.

For (re-)descriptions and illustrations of the compared species see ROUGEMONT (1986a, 1995).

Distribution and natural history

The type locality is situated in the west of the Indonesian part of New Guinea, approximately 25 km to the east of Modowi. The holotype was collected near a stream at an altitude of 10–20 m.

Stilicoderus acutissimus n. sp.

(Figs. 69–75)

Type material

Holotype ♂: “Indonesia W-Papua, ca. 130 km SE Kaimana, Omba (= Yamor) river, 10–20 km from coast, S4°05'49", E134°54'09", 10–20 m, 09.–11.II.2011, leg. A. SKALE (008) / Holotypus ♂ *Stilicoderus acutissimus* sp. n. det. V. ASSING 2012” (NME).

Etymology

The specific epithet (superlative of the Latin adjective *acutus*: sharp) alludes to the shape of the ventral process of the aedeagus.

Description

Body length 5.1 mm; length of forebody 3.1 mm. Coloration: body blackish; legs brown with dark-brown femora; antennae dark-brown.

Head transverse, 1.22 times as broad as long, widest across eyes (Fig. 69), behind eyes smoothly curving towards posterior constriction; posterior angles almost obsolete; punctation dense, relatively fine, and defined, punctures somewhat oblong (Fig. 70); interstices without microsculpture, narrower than diameter of punctures. Eyes large and bulging, approximately 0.8 times as long as the distance from posterior margin of eye to posterior constriction.

Pronotum (Fig. 69) approximately 1.1 times as long as broad and 0.75 times as wide as head; dorsal surface matt owing to the extremely dense, relatively fine and granulose punctation (Fig. 71); midline without impunctate band.

Elytra slightly longer and distinctly broader than pronotum (Fig. 69); surface with some shine, with dense, fine, granulose ground punctation, and with irregularly spaced, laterally somewhat seriate, interspersed larger punctures. Hind wings fully developed. Tarsi moderately slender; metatarsomere I shorter than the combined length of II and III; tarsomeres IV simple.

Abdomen narrower than elytra; punctation very fine and dense; posterior margin of tergite VII with palisade fringe.

♂: tergite VIII with weakly convex posterior margin; posterior margin of sternite VII broadly concave and with long black submarginal setae, these setae particularly dense laterally (Fig. 72); sternite VIII strongly transverse and with broadly concave posterior margin (Fig. 73); aedeagus approximately 0.85 mm long, with long, apically very acute, and somewhat asymmetric ventral process and with distinctly sclerotised apical structures of distinctive shape (Figs. 74, 75).

Comparative notes

Like the preceding species, *S. acutissimus* belongs to the *S. aerosus* species group. It is distinguished from other

species of this group particularly by the matt and extremely densely punctate pronotum, by the shape and chaetotaxy of the male sternite VII, as well as by the distinctive morphology of the aedeagus.

Distribution and natural history

The type locality and the circumstances of collection are identical to those of *S. caprarius*.

Unidentified and unnamed species

Stilicoderus sp. 1

Material examined

China: 3 ♀♀, W-Hubei, Daba Shan, creek valley 8 km NW Muyuping, 31°29'N, 110°22'E, 1550–1650 m, deciduous forest, moss sifted, 18.VII.2001, leg. SCHÜLKE (cSch); 1 ♀, S-Shaanxi, Daba Shan, 20 km NW Zhenping, creek valley SE pass, 31°59'N, 110°22'E, 1680 m, 11.VII.2001, leg. SCHÜLKE (cSch).

Comment

This species of the *S. signatus* group is characterised by large body size (length of forebody: 4.3–4.4 mm) and large elytral spots.

Stilicoderus sp. 2

Material examined

China: 1 ♀, Yunnan, 1 km W Haba, Haba Xueshan Mts., 27°22'N, 100°08'E, 2750 m, margin of mixed forest near small stream, leaves and wet detritus sifted, 19.VI.2007, leg. HÁJEK & RŮŽIČKA (cSch).

Comment

This species, too, belongs to the *S. signatus* group. It is similar to the preceding species, but has smaller elytral spots, extensively darkened legs, and is more coarsely punctate on the pronotum and the elytra.

Stilicoderus sp. 3

Material examined

China: 1 ♀, Yunnan, Nujiang Lisu Aut. Pref., creek valley 3 km SE Gongshan, 27°43'N, 98°41'E, 1450–1500 m, litter and moss sifted, 5.VI.2007, leg. WRASE (cSch); 1 ♀, Yunnan, Nujiang Lisu Aut. Pref., Salween side valley 5 km S Fugong, road SS 228, km 223, creek bank, litter sifted, 8.VI.2007, leg. WRASE (cSch).

Comment

The above specimens are highly similar to, and possibly conspecific with *S. signatus*. Males would be needed to confirm the identification.

Stilicoderus sp. 4

Material examined

China: 1 ♀, Yunnan, Diqing Tibet. Aut. Pref., Zhongdian Co., small cleft W Yangtze Kiang, 33 km WNW Zhongdian, 27°57'N, 99°24'E, creek bank, under gravel and in soil, 4.VI.2005, leg. WRASE (cSch).

Comment

This rather large species (length of forebody: 4.6 mm) is characterised by the robust, uniformly blackish body, very dense and non-granulose punctation of the head, the densely and granulosely punctured pronotum, and the moderately shiny elytra with moderately coarse macropunctures.

Stilicoderus sp. 5

Material examined

China: 2 ♀♀, Sichuan, Ganzi Tibet. Aut. Pref., Luding Co., W Erlang Shan pass, 7 km SSE Luding, 29°51'N, 102°15'E, 2600 m, 20.–29.VI.1999, leg. WRASE (cSch).

Comment

The above females are similar to *S. japonicus*, but distinguished by smaller body size, a more sparsely punctured head, and the presence of distinct macropunctures on the elytra.

4.2 *Stiliderus*

cicatricosus group

Stiliderus longicollis (Bernhauer, 1928)

Material examined

Borneo: 2 exs., Sabah, 25 km SE Sapulut, Batu Pungul env., flight interception trap, V.2001, leg. KODADA & ČIAMPOR (cAss).

Comment

According to ROUGEMONT (1996), the known distribution of this species is confined to Borneo and Palawan.

Stiliderus cardamomensis Rougemont, 1996

Material examined

India: 3 exs., Goa, Canacona District, Cortigao Sanctuary, 100 m, primary forest, 6.–10.I.1997, leg. SCHULZ & VOCK (cAss).

Comment

The original description of *S. cardamomensis* is based on a male holotype from “S. India, Kerala Cardamom Hills,

10 km SW Kumily, 77°07'E 09°31'N, Vallakadavu" and a female paratype from a nearby locality (ROUGEMONT 1996).

Stiliderus crassus (Kraatz, 1859)

Material examined

India: 1 ♂, Tamil Nadu, 10 km N Pondicherry, Auroville, Discipline Forest, leaf litter, 26.I.2009, leg. BURGER (cAss).

Comment

According to ROUGEMONT (1996), *S. crassus* is widespread in the Oriental region, from India to Sulawesi (Indonesia).

Stiliderus smetanai Rougemont, 1986
(Fig. 76)

Material examined

India: 3 exs., Uttar Pradesh, Rajaji National Park, 10 km SE Dehra Dun, 600–700 m, 10.X.1996, leg. SCHULZ & VOCK (cAss); 3 exs., Uttarakhand, 14 km E Uttarkashi, 30°45'N, 78°34'E, 1450 m, 10.–12.IV.2012, leg. SHAVRIN (cSha, cAss).

Comment

This species was previously known only from Nepal (ROUGEMONT 1986b, 1996, SMETANA 2004). The above specimens represent the first records from India. The currently known distribution is mapped in Fig. 76.

Stiliderus occidentalis Rougemont, 1986
(Fig. 76)

Material examined

India: 36 exs., Uttarakhand, Kosi river valley, 5 km N Ramnagar, 29°26'N, 79°08'E, 23.–26.IV.2012, leg. SHAVRIN (cSha, cAss); 7 exs., Uttarakhand, 15 km SW New Tehri, 30°16'N, 78°22'E, 870 m, 18.–20.IV.2012, leg. SHAVRIN (cSha, cAss); 1 ex., Uttarakhand, left side of Kosi river, 5 km N Ramnagar, "N29°432 E79°140", 7.–11.VI.2011, leg. SHAVRIN (cSha).

Comment

The known distribution of *S. occidentalis* is confined to northern India (ROUGEMONT 1986d, SMETANA 2004). The currently known distribution is mapped in Fig. 76.

Stiliderus expectatus Rougemont, 1986

Material examined

Indonesia: 5 exs., Bali, Kebun Raya, 1600 m, 4.II.1994, leg. PEDERSEN (ZMUC, cAss).

Comment

This species was originally described from Bali and subsequently reported from additional localities in Thailand, Malaysia, and the Sunda Islands (ROUGEMONT 1996).

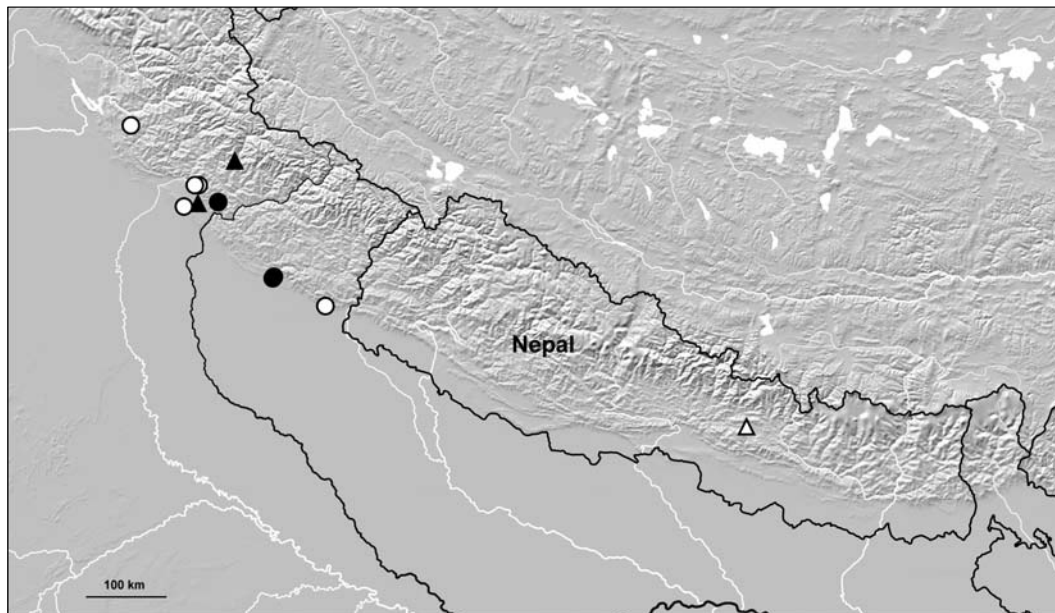


Fig. 76. Distribution of *Stiliderus* species in the Himalaya: *S. occidentalis* (circles); *S. smetanai* (triangles). – Filled symbols: examined records; open symbols: literature records.

Stiliderus celebensis Rougemont, 1985

Material examined

Indonesia: 1 ♂, N-Sulawesi, 1 km S Sawangan, Sawangan River, near River Park Resort, 1°22'N, 124°57'E, 250–300 m, 8.I.2006, leg. WEIGEL (NME).

Comment

According to ROUGEMONT (1985b, 1996), the distribution of *S. celebensis* is confined to Sulawesi.

Stiliderus ocreatus n. sp.

(Figs. 77–81)

Type material

Holotype ♂: “Indonesia, Bali, Kebun Raya, c. 1600 m, 4.II.1994, J. PEDERSEN / **Holotypus** ♂ *Stiliderus ocreatus* sp. n. det. V. ASSING 2012” (ZMUC).

Paratypes: 2 ♀♀: same data as holotype (ZMUC, cAss).

Etymology

The specific epithet (Latin, adjective: with a splint) refers to the conspicuous posterior process of the male sternite VII.

Description

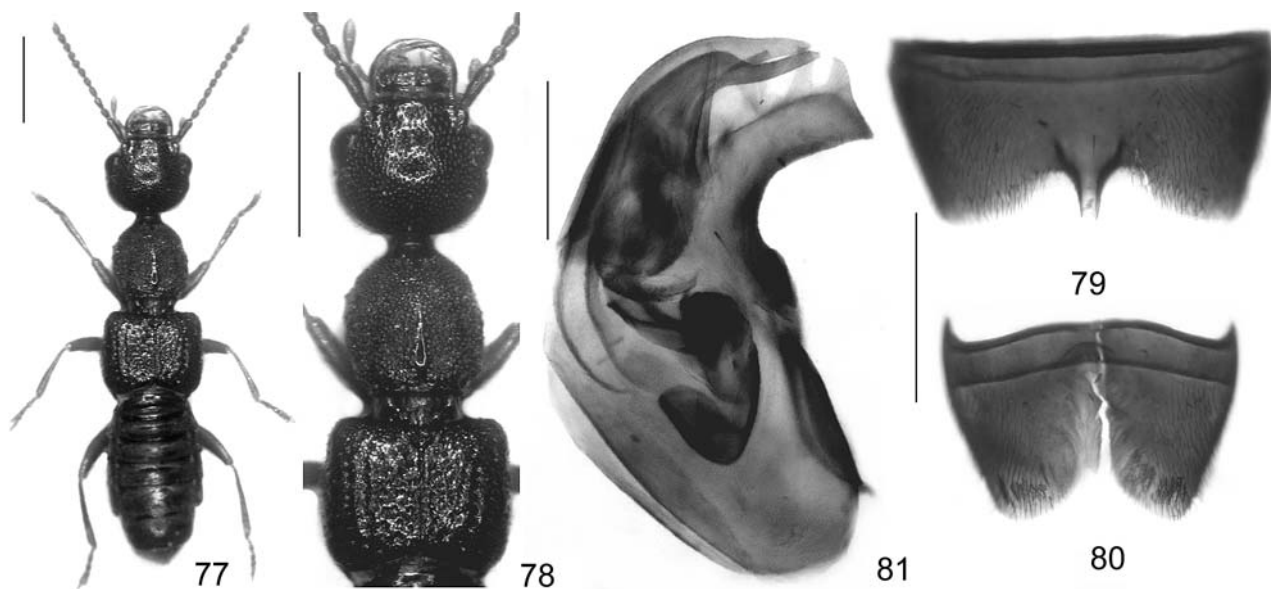
Body length 5.2–5.6 mm; length of forebody 3.2–3.4 mm. Habitus as in Fig. 77. Coloration: forebody blackish; abdomen blackish brown; legs reddish-brown to dark-brown; antennae dark-brown.

Head (Fig. 78) distinctly transverse, 1.12–1.20 times as broad as long; punctation defined, rather coarse and dense, slightly sparser in median dorsal portion; interstices narrower than diameter of punctures (except in median dorsal portion), but distinctly glossy and without microsculpture. Eyes strongly bulging, approximately 0.6–0.7 times as long as distance from posterior margin of eye to posterior constriction.

Pronotum (Fig. 78) strongly convex in cross-section, approximately 1.1 times as long as broad and 0.85 times as wide as head; lateral margins somewhat serrulate, anterior angles acutely dentate; punctation very dense and coarsely granulose; midline with glossy impunctate band only in posterior half; on either side of this impunctate band with impression; anterior median portion (i. e., the portion adjacent to posterior constriction of head) almost impunctate and glossy, this sparsely or impunctate area shaped like an inverse triangle (i. e., apex facing caudad).

Elytra (Fig. 78) short and strongly transverse, approximately 0.7 times as long as pronotum; punctation composed of moderately dense micropunctation and interspersed macropunctures, these macropunctures irregularly spaced in internal half and somewhat seriate in lateral half of elytron. Hind wings apparently fully developed. Tarsi short and stout; tarsomeres IV distinctly bilobed; metatarsomere I shorter than the combined length of II and III.

Abdomen approximately as broad as elytra or nearly so; surface with distinct, but very fine microsculpture, almost matt; punctation dense and extremely fine, barely no-



Figs. 77–81. *Stiliderus ocreatus*. – 77. Habitus. 78. Forebody. 79. Male sternite VII. 80. Male sternite VIII. 81. Aedeagus in lateral view. – Scale bars: 1.0 mm (77–78), 0.5 mm (79–80), 0.2 mm (81).

ticeable in the microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VII (Fig. 79) strongly transverse and with conspicuous modifications, posterior margin distinctly concave in the middle, in median dorsal portion with splint-like process (clearly visible also in lateral view); sternite VIII transverse, with distinct median impression, and with moderately deep, almost V-shaped posterior excision (Fig. 80); aedeagus 0.65 mm long, ventral process stout and curved, dorso-apically with pectinate structures, apical internal structure with large base and spine-like apex (Fig. 81).

Comparative notes

Stiliderus ocreatus is distinguished from the externally highly similar *S. expectatus*, which was found in the same locality, only by the slightly longer, narrower, and more glossy impunctate median band in the posterior half of the pronotum, the presence of an anterior, triangle-shaped, sparsely punctate or impunctate area on the pronotum (close to the posterior constriction of the head), by the conspicuous modifications of the male sternite VII, as well as by the completely different morphology of the aedeagus. For illustrations of the male sexual characters of *S. expectatus* see ROUGEMONT (1986c).

Distribution and natural history

The type locality is situated in Bali at an altitude of 1600 m. The specimens were collected in February.

5 References

- ASSING, V. (2012): The *Rugilus* species of the Palearctic and Oriental regions (Coleoptera: Staphylinidae: Paederinae). – Stuttgarter Beiträge zur Naturkunde A, Neue Serie **5**: 115–190.
- BERNHAEUER, M. (1938): Zur Staphylinidenfauna von China u. Japan. (9. Beitrag). – Entomologisches Nachrichtenblatt **12** (1): 17–39.
- CAMERON, M. (1931): The fauna of British India including Ceylon and Burma. Coleoptera. Staphylinidae, Vol. 2, VIII + 257 pp.; London (Taylor and Francis).
- COIFFAIT, H. (1975): Xantholininae, Paederinae et Euaesthetinae récoltés au Népal par le Professeur FRANZ (Col. Staphylinidae). – Nouvelle Revue d'Entomologie **5**: 153–186.
- COIFFAIT, H. (1978): Ergebnisse der Bhutan-Expedition 1972 des Naturhistorischen Museums in Basel. Coleoptera: Fam. Staphylinidae Subfam. Paederinae, Euaesthetinae, Piestinae, Osoriinae et Omalinae [sic]. – Entomologica Basiliensia **3**: 109–150.
- COIFFAIT, H. (1982a): Contribution à la connaissance des staphylinides de l'Himalaya (Népal, Ladakh, Cachemir). – Senckenbergiana biologica **62** (1981): 21–179.
- COIFFAIT, H. (1982b): Staphylinides (Col.) de la région himalayenne et de l'Inde (I. Xantholininae, Staphylininae et Paederinae). – Entomologica Basiliensia **7**: 231–302.
- FAUVEL, A. (1895): Staphylinides nouveaux de l'Inde et de la Malaisie. – Revue d'Entomologie **14**: 180–286.
- ITO, T. (1984): A new species of the genus *Stilicoderus* from Japan (Coleoptera, Staphylinidae). – The Entomological Review of Japan **39**: 59–61.
- KRAATZ, G. (1859): Die Staphylinen-Fauna von Ostindien, insbesondere der Insel Ceylan. – Archiv für Naturgeschichte **25**: 1–196.
- MOTSCHULSKY, V. (1858): Énumération des nouvelles espèces de coléoptères rapportés de ses voyages. – Bulletin de la Société Impériale des Naturalistes de Moscou **31** (2): 634–670.
- ROUGEMONT, G. DE (1985a): Les *Stiliderus* de la collection du Muséum de Genève (Coleoptera, Staphylinidae). – Revue Suisse de Zoologie **92** (1): 217–228.
- ROUGEMONT, G. DE (1985b): Two new species of *Stiliderus* from Celebes (Col., Staphylinidae). – The Entomologist's Monthly Magazine **121**: 119–122.
- ROUGEMONT, G. DE (1986a): Revision of the genus *Stiliderus* Motschulsky, 1858, Part I: (= *Stilicoderus* Sharp, 1889) (Coleoptera, Staphylinidae, Paederinae). – Entomologische Abhandlungen **49**: 139–187.
- ROUGEMONT, G. DE (1986b): New records of *Stiliderus* from Nepal (Coleoptera, Staphylinidae). 21st contribution to the knowledge of Staphylinidae. – Revue Suisse de Zoologie **93** (1): 233–236.
- ROUGEMONT, G. DE (1986c): New data on the genus *Stiliderus* (Coleoptera, Staphylinidae, Paederinae). – Reichenbachia **24** (4): 53–58.
- ROUGEMONT, G. DE (1986d): Revision of the genus *Stiliderus* Motschulsky, 1858. Part II: the species with bilobed IVth tarsomeres (Coleoptera, Staphylinidae, Paederinae). – Entomologische Abhandlungen, Staatliches Museum für Tierkunde Dresden **50** (2): 33–58.
- ROUGEMONT, G. DE (1995): Review of the Australian species of the subtribe Stilicina (Coleoptera: Staphylinidae: Paederinae). – Elytron **9**: 87–113.
- ROUGEMONT, G. DE (1996): *Stiliderus* and *Stilicoderus*: New data and new species (Coleoptera, Staphylinidae, Paederinae). – Revue Suisse de Zoologie **103** (3): 713–736.
- SCHEERPELTZ, O. (1965): Wissenschaftliche Ergebnisse der Schwedischen Expedition 1934 nach Indien und Burma. Coleoptera Staphylinidae (except. Megalopsidiinae et Steninae). – Arkiv för Zoologi (2) **17**: 93–371.
- SHARP, D. S. (1889): The Staphylinidae of Japan. – The Annals and Magazine of Natural History (6) **3**: 28–44, 108–121, 249–267, 319–334, 406–419, 463–476.
- SHIBATA, Y. (1968): Description of a new species of the genus *Stilicoderus* Sharp from Japan (Coleoptera: Staphylinidae). – Entomological Review of Japan **21** (1): 7–10.
- SHIBATA, Y. (1974): Two new species of *Stilicoderus* Sharp from Taiwan (Coleoptera, Staphylinidae). – Bulletin of the Japan Entomological Academy **8**: 8–13.
- SHIBATA, Y. (2002): Notes on the Taiwanese species of the genus *Stilicoderus* (Coleoptera, Staphylinidae). – Elytra **30** (2): 307–313.
- SMETANA, A. (2004): Subfamily Paederinae Fleming, 1821. – In: LÖBL, I. & SMETANA, A. (eds.): Catalogue of Palearctic Coleoptera. Volume 2. Hydrophiloidea – Histeroidea – Staphylinidea, pp. 579–624; Stenstrup (Apollo Books).

- WATANABE, Y. (1994): New record of staphylinid species from Rebun-tô Island, Northeast Japan. – *Elytra* **22** (1): 114.
- WATANABE, Y. & SHIBATA, Y. (1972): The staphylinid-fauna of Yaku-shima Island, Japan, with descriptions of a new genus and new species. – *Journal of Agricultural Science of the Tokyo University of Agriculture* **17** (1): 59–71.

Author's address:

Dr. VOLKER ASSING, Gabelsbergerstraße 2, 30163 Hannover, Germany;
e-mail: vassing.hann@t-online.de

Manuscript received: 9.VII.2012, accepted: 16.VII.2012.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Stuttgarter Beiträge Naturkunde Serie A \[Biologie\]](#)

Jahr/Year: 2013

Band/Volume: [NS_6_A](#)

Autor(en)/Author(s): Assing Volker

Artikel/Article: [New species and records of Stilicoderus and Stiliderus, primarily from the southern East Palaearctic region \(Coleoptera: Staphylinidae: Paederinae\) 57-82](#)