

A review of the species of *Callispa* Baly, 1858 of Peninsular Malaysia (Coleoptera, Chrysomelidae, Cassidinae)

Autor(en): **Schöller, Matthias**

Objektyp: **Article**

Zeitschrift: **Entomologica Basiliensia et Collectionis Frey**

Band (Jahr): **30 (2008)**

PDF erstellt am: **27.09.2024**

Persistenter Link: <https://doi.org/10.5169/seals-981060>

Nutzungsbedingungen

Die ETH-Bibliothek ist Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Inhalten der Zeitschriften. Die Rechte liegen in der Regel bei den Herausgebern.

Die auf der Plattform e-periodica veröffentlichten Dokumente stehen für nicht-kommerzielle Zwecke in Lehre und Forschung sowie für die private Nutzung frei zur Verfügung. Einzelne Dateien oder Ausdrucke aus diesem Angebot können zusammen mit diesen Nutzungsbedingungen und den korrekten Herkunftsbezeichnungen weitergegeben werden.

Das Veröffentlichen von Bildern in Print- und Online-Publikationen ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. Die systematische Speicherung von Teilen des elektronischen Angebots auf anderen Servern bedarf ebenfalls des schriftlichen Einverständnisses der Rechteinhaber.

Haftungsausschluss

Alle Angaben erfolgen ohne Gewähr für Vollständigkeit oder Richtigkeit. Es wird keine Haftung übernommen für Schäden durch die Verwendung von Informationen aus diesem Online-Angebot oder durch das Fehlen von Informationen. Dies gilt auch für Inhalte Dritter, die über dieses Angebot zugänglich sind.

A review of the species of *Callispa* Baly, 1858 of Peninsular Malaysia (Coleoptera, Chrysomelidae, Cassidinae)

by Matthias Schöller

Abstract. The species of *Callispa* s.str. of Peninsular Malaysia are reviewed. Four new species of *Callispa* s.str. Baly, 1858 are described: *C. korthalsiae* sp.nov., *C. salaccae* sp.nov., *C. scipionae* sp.nov. and *C. parva* sp.nov. Two additional species were recorded for Peninsular Malaysia for the first time: *C. pusilla* Gestro, 1896 and *C. scutellaris* Weise, 1897. All the new records were obtained from climbing palms (Arecaceae); host plant records are listed. A determination key for all species of *Callispa* occurring in Peninsular Malaysia is given.

Key words. Coleoptera – Chrysomelidae – Callispini – *Callispa* s.str. – Oriental region– Arecaceae

Introduction

A high diversity of chrysomelid beetles is known from Peninsular Malaysia. MOHAMEDSAID (2004) listed 621 species from the region. For the genus *Callispa* Baly, 1858, MOHAMEDSAID (2004) listed 7 species. An additional four species feeding on Calamoid palms have recently been described (SCHÖLLER 2007). In this publication, another four new species are added. The specimens were obtained from an extensive field survey by Helmut Steiner between 1991 and 1997. Many details on the collection sites and ecological data on the species treated here may be found in STEINER (2001).

Materials and Methods

Eye length and width were measured in lateral view, the interocular space in frontal view, total length from tip of interantennal expansion to apex of elytra.

Included in this study are specimens located in the following collections:

DEI	.....	Deutsches Entomologisches Institut, Müncheberg, Germany, Dr. Lothar Zerche
MESC	.....	Matthias Schöller Privatsammlung, Berlin, Germany
NHMB	.....	Naturhistorisches Museum Basel, Switzerland, Dr. Michel Brancucci
SNGC	.....	Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main, Germany, Dr. Damir Kovac
ZMHB	.....	Museum für Naturkunde der Humboldt-Universität, Berlin, Germany, Dr. Manfred Uhlig and Dr. Johannes Frisch

Taxonomy

Callispa (Callispa) korthalsiae sp.nov.

Material examined. Holotype (♂, NHMB): / Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E203/96; nat. II] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 13.07.1996, leg. H. Steiner [white] / (my label) Holotypus *Callispa korthalsiae*, des Matthias Schöller. [red] /.

24 Paratypes: All Peninsular Malaysia; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [N148/94] [white] / collected as adult on the lower side of the youngest leaf of *Korthalsia rigida* (Arecaceae), 05.12.1994, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E296/96, nat., I] [white] / collected as adult on *Calamus manan* (Arecaceae), 10.09.1996, leg. H. Steiner [white]; (2 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E140/96, nat., I] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 25.05.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E009/96, nat.] [white] / collected as adult on *Calamus manan* (Arecaceae), 07.02.1996, leg. H. Steiner [white]; (1 ♂, SNGC): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E009/96, nat.] [white] / collected as adult on youngest rosé-coloured leaf of *Iguanura geonomiformis* (Arecaceae), feeding observed, 15.04.1992, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E272/96, nat., I] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 18.08.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E100/96, nat.] [white] / collected as adult on *Calamus manan* (Arecaceae), 18.04.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E167/96, nat.] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 15.06.1996, leg. H. Steiner [white]; (1 ♂, MESC): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E271/93] [white] / collected as adult on *Iguanura geonomiformis* (Arecaceae), 24.06.1993, leg. H. Steiner [white]; (1 ♂, DEIC): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E082/96, nat., II] [white] / collected as adult on *Iguanura wallichii* (Arecaceae), 07.03.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E26/94] [white] / collected as adult on *Orania silvicola* (Arecaceae), 18.08.1994, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E275/96, nat.] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 19.08.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E315/96, nat.] [white] / collected as adult on *Pinanga scortechinii* (Arecaceae), 16.09.1996, leg. H. Steiner [white]; (1 ♀, ZMHUB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E128/96, nat.] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Belum, Perak, MNS Camp, Halongtrail [E030/94] [white] / collected as adult on lower side of youngest rosé leaf of *Iguanura wallichii* (Arecaceae), 26.08.1994, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E343/96, nat.] [white] / collected as adult on *Calamus manan* (Arecaceae), 08.10.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E204/96, nat.] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 13.07.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E270/96, nat.] [white] / collected as adult on *Korthalsia rigida* (Arecaceae), 19.08.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E127/96, nat.] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner [white]; (1 ♀, MESC): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E008/96, nat.] [white] / collected as adult on *Calamus manan* (Arecaceae), 07.02.1996, leg. H. Steiner [white]; (1 ♂, ZMHUB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E132/96, nat.] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E024/92] [white] / collected as adult on upper side of youngest leaf of *Iguanura wallichii* (Arecaceae), feeding observed, 09.04.1992, leg. H. Steiner [white]; (1 ♂, NHMB): / Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E034/92] [white] / collected as adult on youngest leaf of *Iguanura wallichii* (Arecaceae), feeding observed, 15.04.1992, leg. H. Steiner [white]; / all with my label Paratypus *Callispa korthalsiae*, des Matthias Schöller [red] /.

Type locality. Peninsular Malaysia, Ulu Gombak, 03°19.468'N, 101°44.966'E, ca. 250 m a.s.l. Ulu Gombak includes the environment of the Ulu Gombak Field Studies Centre of the University of Malaya, 30 km north of Kuala Lumpur, on the road to Bentong and the Genting Highlands, on the river Gombak. A detailed description of the type locality has been given by STEINER (2001).

Diagnosis. A medium-sized orange species with apical third of elytra pitchy black, lateral margins of pronotum depressed, wide; all elytral punctures in rows: in basal quarter 8 rows plus scutellar and lateral rows, in apical third of elytra 10 rows of punctures plus lateral row; elytra with lateral longitudinal impression, i.e. lateral margin wide; interstice between row of punctures in middle of elytra abutting lateral margin and row 9 as wide as diameter of punctures in row 9; apex of aedeagus abruptly bulging in lateral view.

Description of holotype (male). Habitus: Body elongate oval, yellowish orange with apical third of elytra pitchy black, antennae fuscous (Fig. 16); size [mm]: length (from anterior margin of head to apex of elytra) 4.0, length of pronotum 1.0, width of pronotum 1.5, width of elytra at shoulders 1.9, maximum width of elytra 2.1, length of elytra 3.0.

Head: moderately vaulted between eyes, more strongly so at base of interantennal expansion; interantennal expansion short, rounded, bluntly triangular in frontal view, ventrally with a keel; head lustrous, with only sparse, barely visible micropunctures, eye length in lateral view 1.6 times maximum eye width and 1.4 times interocular space; width of pronotum in frontal view 1.8 times width of head in frontal view; antennae stout, 1.8 mm long, fuscous red with short, white, adpressed setae, apex of segments one and two significantly wider than base of following segment, other segments contiguous, second segment longest, 1.5 times longer than wide, third and fourth segment symmetrical and 1.2 times longer than wide, then fifth and following antennomeres gradually shortening except for 11th, which is 1.9 times longer than 10th, puncturation of all antennal segments very dense.

Thorax: Pronotum vaulted, height-to-width ratio 1.0 : 4.6, length-to-width ratio 1.0 : 1.5, lateral margins broad, with very large, coarse, round primary punctures in basal half and interstices lustrous, punctures at centre of disc smaller, interstices lustrous, lateral carina not undulated, hind edges rectangular, disc before base with a narrow transverse impression; prosternal process of prothorax with apical margin convex, broadly rounded; scutellum pentagonal, as wide as long, lustrous; legs with fore-femora entire at apex in frontal view, i.e. tibiae not laterally angled, and without a longitudinal groove, external edge of tibia broadly excavate, excavation with fringe of strong setae; elytra light orange, same colour as pronotum, surface of elytra lustrous, puncturation of elytra regular, punctures coarse, 8 rows in basal quarter plus scutellar and lateral rows, 10 rows of punctures in apical third of elytra plus lateral row, 10th row fusing with lateral row at very apex, punctures of elytra getting finer towards suture but not towards apex, rows distinct to apex, interstices without micropunctures, not elevated, lateral margin carinate, elytra explanate between lateral carina and 10th row, not regularly vaulted towards suture; apical third of elytra black without metallic lustre, colouration reaching lateral margin, basal margin of colouration blurred.

Abdomen: First sternite laterally with a broad transverse impression with a round pit; apical margin of pygidium with long setae; length of aedeagus 1.2 mm, apex ventrally bulked out and with a longitudinal groove reaching tip, apical part of aedeagus broad in lateral view, tip minute (Fig. 1), apex extended into a rounded tooth in dorsal view, orificium widest at apex (Fig. 2).

Female: Spermatheca as in Fig. 15, apical appendix present, spermathecal duct straight to feebly sinuous, long, approximately 6.5 times spermathecal length.

Variability: Size: length (from anterior margin of head to apex of elytra) 4.0–4.5 mm.

Derivatio nominis. Named after *Korthalsia rigida*, the palm from which this beetle was most frequently collected.

Differential diagnosis. Similar to *Callispa luzonica* Pic, 1930 but differs in the puncturation of the elytra being more coarse, the lateral margins of the pronotum being distinctly separated from the disc, with the anterior margins bent downwards, unevenly, and the scutellum being longer than wide, not wider than long as in *C. luzonica*.

Biology. Collected as adult on the following palms (Arecaceae): *Korthalsia rigida*, *Calamus manan*, *Calamus scipionum*, *Iguanura geomiformis*, *Iguanura wallichii*, *Orania silvicola*, and *Pinanga scortechinii*. Feeding was observed on *Iguanura wallichii*.

Callispa (Callispa) salaccae sp.nov.

Material examined. Holotype (♂, NHMB): / Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E112/92] [white] / on *Salacca conferta* (Arecaceae), youngest leaf, collected 05.07.1992, leg. H. Steiner, feeding observed in cage till 10.07.1992 [white] / Holotypus *Callispa salaccae*, des Matthias Schöller. [red] /.

4 Paratypes: (3 exx NHMB): Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E112/92] [white] / on *Salacca conferta* (Arecaceae), youngest leaf, collected 05.07.1992, leg. H. Steiner, feeding observed in cage till 10.07.1992 [white] /; (1 ♀, MESC): / Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E391/96; nat.] [white] / collected as adult on *Salacca conferta* (Arecaceae), 02.12.1996, leg. H. Steiner [white] /; all with my label Paratypus *Callispa salaccae*, des Matthias Schöller. [red] /.

Type locality. Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m a.s.l. Ulu Gombak includes the environment of the Ulu Gombak Field Studies Centre of the University of Malaya, 30 km north of Kuala Lumpur, on the road to Bentong and the Genting Highlands, on the river Gombak. A detailed description of the type locality has been given by STEINER (2001).

Diagnosis. A small reddish-orange species with apical two-thirds of elytra black, pronotum gradually narrowing from disc to lateral margins, and puncturation of elytra in regular rows, 9 rows in basal quarter of elytra plus scutellar and lateral rows, 11 rows of punctures in apical third of elytra plus lateral row; apex of aedeagus extended into a rounded tooth in dorsal view.

Description of holotype (male). Habitus: Body elongate oval, orange with apical third of elytra pitchy black, antennae fuscous reddish-orange (Fig. 17); size [mm]: length (from anterior margin of head to apex of elytra) 3.85, length of pronotum 0.95, width of pronotum 1.45, width of elytra at shoulders 1.7, maximum width of elytra 1.9, length of elytra 2.6.

Head: feebly vaulted between eyes, interantennal expansion triangular, in frontal view blunt, ventrally with a keel; head matt, with distinct, shallow, coarse punctures; eye length in lateral view 1.8 times maximum eye width and 1.3 times interocular space, width of pronotum in frontal view 1.7 times width of head in frontal view; antennae stout, 1.4 mm long, scape and pedicel fuscous red, flagellum fuscous, with short, white, adpressed setae, apex of pedicel significantly wider than base of following segment, other segments contiguous, pedicel 1.5 times longer than wide, third segment longest,

symmetrical and 2 times longer than wide, then fourth and following antennomeres of similar length except for 11th, which is 2.4 times longer than 10th; puncturation of all antennal segments very dense.

Thorax: Disc of pronotum strongly vaulted, gradually declining from disc to lateral margins, with very large, coarse, round, primary punctures and interstices with micropunctures, matt, only a narrow longitudinal area on disc without primary punctures, height-to-width ratio 1.0 : 3.0, length-to-width ratio 1.0 : 1.55, lateral carina not undulated, hind edges markedly rectangular, disc before base without a narrow transverse impression; prosternal process of prothorax with apical margin feebly convex, broadly rounded; scutellum pentagonal, 1.3 times wider than long, lustrous; legs with fore-femora entire at apex in frontal view, i.e. tibiae not laterally angled, and without a longitudinal groove, external edge of tibia broadly excavate, excavation with fringe of strong setae; elytra reddish-orange, same colour as pronotum, surface of elytra lustrous, puncturation of elytra regular, punctures coarse, dark orange at base, 9 rows in basal quarter plus scutellar and lateral row, 11 rows of punctures in apical third of elytra plus lateral row, 10th row fusing with lateral row at very apex, punctures of elytra getting finer towards apex but not towards suture, rows distinct to apex, interstices with minute micropunctures and shallow wrinkles, not elevated, lateral margin carinate, regularly vaulted towards suture; apical two-thirds of elytra black without metallic lustre, colouration not reaching lateral margin, leaving a narrow orange stripe, basal margin of black colouration blurred.

Abdomen: First sternite laterally with a broad transverse impression, apical margin of pygidium with long setae; length of aedeagus 1.0 mm, apex ventrally bulked out and smooth, apex of aedeagus feebly thickened in lateral view, tip produced (Fig. 3), apex extended into a rounded tooth in dorsal view, ostium narrow, widest at middle, (Fig. 4).

Female: Spermatheca with receptacle globular, darker, pump slightly longer than receptacle (Fig. 15), apical appendix present (not figured), spermathecal duct straight with distal section folded in broad, looping folds, long, approximately 7.0 times spermathecal length.

Variability: Dorsum light orange to dark reddish-orange, base of blackish marking of elytra blurred to a greater or lesser extent.

Derivatio nominis. Named after its verified host plant, *Salacca conferta*.

Differential diagnosis. Similar to *Callispa pusilla* Gestro, 1896 but differs in basal quarter of elytra having 9 rows plus scutellar and lateral rows and lateral margin of pronotum not undulated.

Biology. Collected as adult on the youngest leaf of *Salacca conferta* (Arecaceae); feeding was also observed on this palm.

***Callispa (Callispa) scipionae* sp.nov.**

Material examined. Holotype (♂, NHMB): / Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN [white] / on *Calamus scipionum* (Arecaceae) in a plantation of this palm in a secondary forest, 22.03.1994, leg. H. Steiner [sega plot; N207/94] [white] / Holotypus *Callispa scipionae*, des Matthias Schöller. [red] /.

Type locality. Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m a.s.l. A detailed description of the type locality has been given by STEINER (2001).

Diagnosis. A small reddish-orange species with apical four-fifths of elytra black, pronotum gradually narrowing from disc to lateral margins, and puncturation of elytra in regular rows, 9 rows in basal quarter of elytra plus scutellar and lateral rows, 11 rows of punctures in apical third of elytra plus lateral row; apex of aedeagus extended into a short, broad tooth bending upwards.

Description of holotype (male). Habitus: Body elongate oval, rusty red with apical four-fifths of elytra black, black marking prolonged into a band between 5th and 7th rows of punctures to humerus, antennae black (Fig. 18); size [mm]: length (from anterior margin of head to apex of elytra) 3.60, length of pronotum 0.95, width of pronotum 1.40, width of elytra at shoulders 1.7, maximum width of elytra 1.9, length of elytra 2.65.

Head: Head feebly vaulted between eyes, interantennal expansion triangular, in frontal view blunt, ventrally with a keel; head matt, with distinct shallow, coarse punctures; eye length in lateral view 1.4 times maximum eye width and 1.3 times interocular space, width of pronotum in frontal view 1.9 times width of head in frontal view; antennae stout, 1.35 mm long, antenna black, apex of pedicel fuscous red, with short, white, adpressed setae, apex of pedicel significantly wider than base of following segment, other segments contiguous, pedicel longest, 1.5 times longer than wide, third segment as long as pedicel, symmetrical and 2 times longer than wide, fourth and following antennomeres of similar length except for 11th, which is 2.25 times longer than 10th, puncturation of all antennal segments very dense.

Thorax: Disc of pronotum strongly vaulted, gradually narrowing from disc to lateral margins, with very large, coarse, round, primary punctures and interstices with micropunctures, matt, only a narrow longitudinal area on disc without punctures, height-to-width ratio 1.0 : 2.8, length-to-width ratio 1.0 : 1.47, lateral carina undulated, angles of anterior margin of pronotum plain, not bending downwards in frontal view, hind edges markedly rectangular, disc before base without a narrow transverse impression; prosternal process of prothorax with apical margin distinctly convex, broadly rounded; scutellum pentagonal, 1.36 times wider than long, lustrous; legs with fore-femora entire at apex in frontal view, i.e. tibiae not laterally angled, external edge of tibia broadly excavate; elytra rusty red, same colour as pronotum, surface of elytra lustrous, puncturation of elytra regular, punctures coarse, rusty at base, 9 rows in basal quarter plus scutellar and lateral rows, 11 rows of punctures in apical third of elytra plus lateral row, 10th row fusing with lateral row at very apex, punctures of elytra getting finer towards apex but not towards suture, rows distinct to apex, interstices glabrous with shallow wrinkles, feebly elevated, lateral margin carinate, regularly vaulted towards suture; apical four-fifths of elytra black without metallic lustre, black marking prolonged into a band between 5th and 7th rows of punctures to humerus, colouration not reaching lateral margin, leaving a narrow orange stripe, basal margin of black colouration blurred.

Abdomen: First sternite laterally with a broad oval impression, apical margin of pygidium with long setae; length of aedeagus 1.0 mm, apex ventrally bulked out and smooth, aedeagus gradually thickening towards apex in lateral view, apex of aedeagus

only feebly thickened in lateral view, tip produced and bending upwards (Fig. 5), apex extended into a short, broad tooth in dorsal view, ostium broad, widest at middle (Fig. 6).

Derivatio nominis. Named after the plant *Calamus scipionum*.

Differential diagnosis. Similar to *Callispa salaccae* sp.nov., but differs in the undulated lateral margin of pronotum, the angles of anterior margin of pronotum being plain, not bending downwards in frontal view; tip of aedeagus bent upwards and ostium broad.

Biology. Collected as adult on *Calamus scipionum* (Arecaceae), on upper side of very recently unfolded youngest leaf; the palm occurred in secondary forest.

Callispa (Callispa) parva sp.nov.

Material examined. Holotype (♂, NHMB): / Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 16.07.1996, leg. H. Steiner [Manau plot; E209/96] [white] / Holotypus *Callispa parva* des Matthias Schöller. [red] /.

74 Paratypes: All Peninsular Malaysia, (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 16.07.1996, leg. H. Steiner [Manau-plot; E208/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 21.08.1996, leg. H. Steiner [Manau-plot; E268/9] [white] /; (2 exx, NHMB; 1 ex., MESC): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN [white] / collected as adult on *Daemonorops angustifolia* (Arecaceae) in swamp, 14.11.1996, leg. H. Steiner [Sega-plot; E380/96] [white] /; (1 ex., MESC): Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14'E, 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 29.08.1996, leg. H. Steiner. [t275; E242/96] [white] /; (1 ex., MESC; 2 exx, NHMB): Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14'E, 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 03.07.1996, leg. H. Steiner. [t275; E185/96, I] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 27.02.1996, leg. H. Steiner [Manau-plot; E024/96, I] [white] /; (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 14.11.1996, leg. H. Steiner [sega plot; E381/96, I] [white] /; (1 ♂, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 29.11.1994, leg. H. Steiner [Manau-plot; N141/94] [white] /; (1 ♂, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected on *Calamus caesius* (Arecaceae), 29.06.1995, leg. H. Steiner [Manau-plot; N141/94] [white] /; (2 ♀, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 16.12.1994, leg. H. Steiner [Manau-plot; N158/94] [white] /; (1 ex., NHMB): Peninsular Malaysia, Kampung Gadong, Negeri Sembilan, between Seremban and Tampin, [white] / collected as adult on *Calamus manan* (Arecaceae) in an abandoned rubberplantation, 08.12.1994, leg. H. Steiner [white] /; (1 ex., NHMB): Peninsular Malaysia, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN. [N137/94] [white] / collected as larva on *Calamus scipionum* (Arecaceae), 08.11.1994, leg. H. Steiner [white] /; (1 ex., NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 14.11.1996, leg. H. Steiner [sega plot; E379/96] [white] /; (2 exx, NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 14.11.1996, leg. H. Steiner [sega plot; E382/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Calamus manan* (Arecaceae) in a plantation of this palm in a timber tree plantation, 17.12.1994, leg. H. Steiner [Manau

plot; E401/96] [white] /; (1 ex., NHMB): Peninsular Malaysia, Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, on *Calamus manan* (Arecaceae), 05.02.1997, leg. H. Steiner [t275; E443/96] [white] /; (1 ex., NHMB): Peninsular Malaysia, Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, on *Calamus manan* (Arecaceae), 05.02.1997, leg. H. Steiner. [t275; E444/96] [white] /; (2 exx, NHMB): Peninsular Malaysia, Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 05.02.1997, leg. H. Steiner. [t275; E445/96] [white] /; (2 exx, NHMB): Peninsular Malaysia, Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 05.02.1997, leg. H. Steiner. [t275; E446/96] [white] /; (4 exx, NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Calamus manan* (Arecaceae) in a plantation of this palm in a timber tree plantation, 25.04.1996, leg. H. Steiner [Manau plot; E091/96] [white] /; (1 ♀, NHMB): Peninsular Malaysia, Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, on *Calamus manan* (Arecaceae), 05.02.1997, leg. H. Steiner. [t275; E442/96] [white] /; (1 ex., NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Calamus manan* (Arecaceae) in a plantation of this palm in a timber tree plantation, 16.07.1996, leg. H. Steiner [Manau plot; E212/96] [white] /; (1 ex., NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Calamus manan* (Arecaceae) in a plantation of this palm in a timber tree plantation, 21.08.1996, leg. H. Steiner [Manau plot; E269/96] [white] /; (1 ♂, NHMB): Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 14.11.1996, leg. H. Steiner [sega plot; E378/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 21.08.1996, leg. H. Steiner [Manau-plot; E267/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 21.08.1996, leg. H. Steiner [Manau-plot; E266/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 21.08.1996, leg. H. Steiner [Manau-plot; E263/96] [white] /; (1 ex., ZMHUB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 21.08.1996, leg. H. Steiner [Manau-plot; E260/96] [white] /; (2 exx, NHMB): Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN. [E125/96, nat.] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner [white] /; (1 ex., NHMB): Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 03.05.1996, leg. H. Steiner. [t275; E107/96] [white] /; (1 ex., NHMB): Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14', 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 03.05.1996, leg. H. Steiner. [t275; E108/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected on *Calamus manan* (Arecaceae), 16.12.1994, leg. H. Steiner [Manau-plot; N190/94] [white] /; (1 ex., NHMB): Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E217/95] [white] / collected on *Calamus scipionum* (Arecaceae), 18.05.1995, leg. H. Steiner [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN [white] / collected as adult on *Calamus javensis* (Arecaceae), 29.06.1995, leg. H. Steiner [Sega-plot; E211/95] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN [white] / collected on *Calamus scipionum* (Arecaceae), 29.06.1995, leg. H. Steiner [Sega-plot; N270/95] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 12.11.1996, leg. H. Steiner [Manau-plot; E375/96, I] [white] /; (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 12.11.1996, leg. H. Steiner [Manau-plot; E374/96, I] [white] /; (1 ex., NHMB; 1 ex., DEIC): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN [white] / collected as adult on *Calamus caesius* (Arecaceae), 17.10.1996, leg. H. Steiner [Sega-plot; E354/96] [white] /; (2 exx,

NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 14.11.1996, leg. H. Steiner [sega plot; E377/96] [white] /; (1 ex., DEIC): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 25.04.1996, leg. H. Steiner [Manau-plot; E085/96] [white] /; (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Daemonorops angustifolia* (Arecaceae) in a secondary forest, 12.03.1996, leg. H. Steiner [Sega-plot; E058/96] [white] /; (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 02.04.1996, leg. H. Steiner [Manau-plot; E054/96] [white] /; (2 exx, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 02.04.1996, leg. H. Steiner [Manau-plot; E053/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 27.02.1996, leg. H. Steiner [Manau-plot; E042/96] [white] /; (1 ex., NHMB): Kampong Bongsu, Pahang, at the road from Kuala Lumpur to Mentakap (ca. 10 km before Mentakap), 3°28'N 102°14'E, 50 m NN [white] / rubber-plantation, collected as adult on *Calamus manan* (Arecaceae), 29.08.1996, leg. H. Steiner. [t275; E240/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 16.07.1996, leg. H. Steiner [Manau-plot; E214/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 16.07.1996, leg. H. Steiner [Manau-plot; E210/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 22.06.1996, leg. H. Steiner [Manau-plot; E174/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 22.06.1996, leg. H. Steiner [Manau-plot; E172/96] [white] /; (1 ex., NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 22.06.1996, leg. H. Steiner [Manau-plot; E171/96] [white] /; (1 ex., NHMB): Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN. [E129/96, nat.] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner [white] /; (1 ex., ZMHUB; 1 ex., NHMB): Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN. [E125/94] [white] / collected as adult on *Calamus scipionum* (Arecaceae), 15.12.1994, leg. H. Steiner [white] /; (1 ♂, NHMB): Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m NN [white] / collected as adult on *Calamus manan* (Arecaceae), 29.11.1994, leg. H. Steiner [Manau-plot; N213/94] [white] /; all with my label: / *Paratypus Callispa parva*, des Matthias Schöller [red] /.

Type locality. Peninsular Malaysia, Sungai Buloh, Selangor, about 15 km West of Kuala Lumpur, 03°11,783'N, 101°35,399'E, ca. 50 m a.s.l. *Calamus manan* and *Calamus scipionum* planted between teak-trees (*Tectona grandis*) in 1980. A detailed description of the type locality has been given by STEINER (2001).

Diagnosis. A small brownish-orange species with elytra black with brownish-orange margins, elytra gradually declining from suture towards lateral margins, not explanate, 8 rows of punctures in basal quarter plus scutellar and lateral rows, 10 rows of punctures in apical third of elytra plus lateral row, pronotum regularly oblate and puncturation of elytra in regular rows; apex of aedeagus with short, rounded tip in dorsal view.

Description of holotype (male). Habitus: Body oval, dark orange with elytra black and antennae reddish to black (Fig. 19); size [mm]: length (from anterior margin of head to apex of elytra) 3.80, length of pronotum 0.85, width of pronotum 1.45, width of elytra at shoulders 1.6, maximum width of elytra 1.9.

Head: Head moderately vaulted between eyes, interantennal expansion broad, rounded in frontal view; head reticulated, dull, with puncturation strong and moderately dense, eye length in lateral view 1.4 times maximum eye width and 1.5 times interocular space; width of pronotum in frontal view 1.7 times width of head in frontal view; antennae stout, 1.4 mm long, first segment brownish orange, remaining segments black,

with short, white, adpressed setae, apex of segment one significantly wider than base of segment 2, following segments contiguous, third segment symmetrical and 1.6 times longer than wide, fourth antennomere 1.4 times longer than wide in dorsal view; following antennomeres gradually shortening except for 11th which is 1.9 times longer than 10th, puncturation of all antennal segments very dense.

Thorax: Pronotum regularly oblate, not vaulted, lateral margin gradually declining from disc, height-to-width ratio 1.0 : 3.8, length-to-width ratio 1 : 1.7, with large, round to oval, coarse primary punctures, smaller on midline, all interstices shagreened, dull, lateral carina strongly undulated, hind edges with acute tooth, disc before base without transverse impression; prothorax with apical margin of prosternal process convex, rounded; scutellum pentagonal, transverse, width 1.5 times length, with micropunctures, dull; legs with fore-femora entire at apex in frontal view, i.e. tibiae not laterally angled, and without a longitudinal groove, external edge of tibia broadly excavate, excavation with fringe of strong setae; elytra black, surface of elytra matt, puncturation of elytra regular, punctures moderately coarse in basal two-thirds, vanishing in apical third, 8 rows in basal quarter plus scutellar and lateral rows, the latter with small punctures, 10 rows of punctures in apical third of elytra plus lateral row, 10th row not fusing with lateral row at very apex (hardly detectable), punctures of first row replaced in apical half by a narrow groove, interstices very finely shagreened, even, lateral margin carinate, between lateral carina and 10th row elytra regularly oblate, not explanate.

Abdomen: Sternites lustrous, first sternite laterally with a broad impression, second sternite laterally with narrow transverse impressions, apical margin of pygidium with long setae; length of aedeagus 1.0 mm, apex regularly vaulted ventrally, apical part of aedeagus slender in lateral view (Fig. 7), apex with a short, rounded tip in dorsal view (Fig. 8).

Female: Spermatheca hook-shaped, 0.20 x 0.25 mm.

Derivatio nominis. The name refers to the small size of this species, from the Latin *parvus -a -um*, small.

Differential diagnosis. Similar to *Callispa spaethi* Uhmann, 1931 but smaller and without strong blue metallic lustre, the third antennal segment being equal to the second, and the interantennal process being much wider; *C. kalshoveni* Uhmann, 1955 is similar to *C. spaethi*, but differs from it and *C. parva* in the black scutellum, and *C. parva* has more coarse punctures on frons and the 10th row of punctures is more distant from the row abutting the elytral margin. From *Callispa bicolor* Gestro, 1909 it differs in the interantennal process being more acute, the lateral margin of the pronotum being more distinctly explanate, and the elytra having eight rows of punctures in the anterior quarter with the 8th row bent towards lateral margin of elytra, not 9 rows with the 9th row parallel to the lateral margin as in *C. bicolor*; in the similar *Callispa marginipennis* Gestro, 1899, the head is brown, the lateral margin at the anterior angles of the pronotum is less explanate, and the puncturation of the elytra is more coarse; in *C. duodecimmaculata* Chapuis, 1876, the elytra are similarly vaulted, but have black spots.

Biology. Collected as adult on *Calamus caesius*, *C. javensis*, *C. manan*, *Daemonorops angustifolia*, and as larva on *Calamus scipionum* (Arecaceae). The habitats were rubber-plantations or plantations of *Calamus manan* in a timber plantation.

***Callispa (Callispa) elegans* Baly, 1876**

New records from Malaysia. 2 exx: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E085/91], collected as adults on *Iguanura geonomiformis* (Arecaceae), 25.09.1991, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E024/92], collected as adult on *Iguanura geonomiformis* (Arecaceae), 09.04.1992, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E272/93], collected as adult on *Iguanura geonomiformis* (Arecaceae), 24.06.1993, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E055/93], collected as adult on *Pinanga disticha* (Arecaceae), 26.11.1992, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E037/93], collected as adult on *Caryota mitis* (Arecaceae), 29.11.1992, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E233/93], collected as adult on *Elaeis guineensis* (Arecaceae), 11.05.1993, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E015/92], collected as adult on *Korthalsia rigida* (Arecaceae), 07.04.1992, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [N240/94], collected as adult on *Korthalsia rigida* (Arecaceae), 11.04.1995, leg. H. Steiner; 1 ♀: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E139/96, nat.], collected as adult on *Korthalsia rigida* (Arecaceae), 25.05.1996, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E038/92], collected as adult on *Korthalsia rostrata* (Arecaceae), 19.04.1992, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN, [E021/96, Orang-Asli-plot], collected as adult on *Calamus caesius* (Arecaceae) near river bench, 28.02.1996, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E093/96, nat.], collected as adult on *Pinanga scortechinii* (Arecaceae), 22.04.1996, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E090/96, nat.], collected as adult on *Pinanga scortechinii* (Arecaceae), 22.04.1996, leg. H. Steiner; 1 ♀: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E296/96, nat., II], collected as adult on *Calamus manan* (Arecaceae), 10.09.1996, leg. H. Steiner; 1 ex.: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E011/96, nat., I], collected ex pupa on *Calamus manan* (Arecaceae), 09.02.1996, leg. H. Steiner; 1 ♂: Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E130/96, nat.], collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner.

Distribution. Sumatra, Java, Peninsular Malaysia, Mentawai Islands, Batú Islands, Singapore.

Note. The aedeagus was studied for the first time: length of aedeagus 1.25 mm, apical part of aedeagus gradually thickening in lateral view, apex ventrally with a longitudinal groove reaching tip, apical part of aedeagus broad in lateral view, tip minute (Fig. 9), apex extended into a broad truncate tooth in dorsal view, ostium widest near apex (Fig. 10). *C. elegans* was previously recorded from *Salacca* spp. (KALSHOVEN 1957) and *Cyrtostachys lacca* (MOHAMEDSAID 2004) palms. *Calamus manan*, *Calamus caesius*, *Calamus scipionum*, *Elaeis guineensis*, *Iguanura geonomiformis*, *Caryota mitis*, *Korthalsia rigida*, *Korthalsia rostrata*, *Pinanga disticha* and *Pinanga scortechinii* are new host records.

***Callispa (Callispa) pusilla* Gestro, 1896**

New records from Malaysia. 86 exx, Peninsular Malaysia, most specimens from Ulu Gombak, natural habitat, 03°19,468'N, 101°44,966'E, ca. 250 m NN, leg. H. Steiner; also from Ulu Gombak, Orang-Asli-plot, and few from Sungai Buloh, Selangor, Sega-plot, about 15 km West of Kuala Lumpur, 03°11,497'N, 101°35,683'E, ca. 50 m NN, leg. H. Steiner.

Specimens were collected continuously from January to December. Most specimens were collected from *Calamus* spp., the following host-plant were recorded: *Calamus caesius*, *Calamus castaneus*, *Calamus insignis*, *Calamus manan*, *Calamus ornatus*, *Calamus scipionum*, *Ceratolobus subangulatus*, *Daemonorops didymophylla*, *Daemonorops angustifolia*, *Eugeissona tristis*, *Iguanura geonomiformis*, *Iguanura wallichii*, *Korthalsia rigida*, *Korthalsia rostrata*, *Orania silvicola* and *Salacca* sp.

Distribution. Indonesia Java, Mentawai I., Pensinsular Malaysia (new for Malaysia).

Note. The aedeagus was studied for the first time: length of aedeagus 0.95 mm, apex regularly vaulted ventrally, apical part of aedeagus slender in lateral view, apex straight (Fig. 11), apex extended into a rounded tooth in dorsal view, orificium widest at middle (Fig. 12).

***Callispa (Callispa) scutellaris* Weise, 1897**

New records from Malaysia: 2 exx, Ulu Gombak, 03°19,468'N, 101°44,966'E, ca. 250 m NN [E136/96, nat.], collected as adult on *Calamus scipionum* (Arecaceae), 15.05.1996, leg. H. Steiner.

Distribution. Burma: Tenasserim, Peninsular Malaysia (new for Malaysia).

Note. The aedeagus was studied for the first time: length of aedeagus 1.25 mm, apex ventrally regularly vaulted, apical part of aedeagus very slender in lateral view, apex straight (Fig. 13), apex extended into a rounded tooth in dorsal view, ostium widest at middle (Fig. 14).

Key to the species of *Callispa* from the Malayan Peninsula

1. Length 8.0 mm, pronotum red and elytra dark blue, elytral punctures in rows, interocular space almost impunctate. ... ***montivaga* Maulik, 1919**
- Smaller, and / or colour different. 2.
- 2(1) Punctuation close to lateral margin of elytra confused. 3.
- All punctures in rows, with or without a row of punctures abutting lateral margin of elytra. 8.
- 3(2) Elytral punctures confused in apical half of elytra, unicolorous brownish-orange. ***corpulenta* Uhmman, 1954**
- Elytra with regular striae to apex except for punctuation close to lateral margin, dorsum completely or partly bluish-black. 4.
- 4(3) Mesoscutellum longer than wide, body length <4.5 mm, pronotum yellow to brownish-red. 5.
- Mesoscutellum wider than long. 7.
- 5(4) Pronotum regularly oblate, gradually attenuate towards apex, interantennal cone acute, elytra bluish-black.
- ***ianthorufa* Schöller, 2007**
- Lateral sides of pronotum explanate, not oblate, pronotum rectangular. 6.
- 6(5) Interantennal cone acute, dorsum yellow, elytra with five black spots, fore-femora simple. ***penangana* Uhmman, 1953**

- Interantennal cone truncate, elytra bluish-black with anterior quarter yellowish-orange. **steineri Schöller, 2007**
- 7(4) Body length 5.2 mm, pronotum metallic blue, elytra metallic velvet violet. **scutellaris Weise, 1897**
- Body length 4.5 mm, pronotum and anterior third of elytra brownish-red, pronotum feebly vaulted on disc, margins broad.
..... **curta Weise, 1897**
- 8(2) Elytra with lateral longitudinal impression, lateral margin wide. 9.
- Elytra regularly oblate towards lateral margin, lateral margin narrow.
..... 12.
- 9(8) Rows of elytral punctures in apical third vanishing towards apex, including rows 7 to 9, black markings rarely reaching lateral margin. ...
..... **confertae Schöller, 2007**
- Rows of elytral punctures distinct on apex, at least rows 7 to 9, although punctures are comparatively smaller, black markings mostly reaching lateral margin. 10.
- 10(9) Elytra without a row of punctures abutting lateral margin, base of elytra black. **amabilis Gestro, 1909**
- Elytra with a row of punctures abutting lateral margin, base of elytra yellow to orange, ventral surface of aedeagus at apex with a narrow groove; two species similar to each other. 11.
- 11(10) At mid-elytra, interstice between row of punctures abutting lateral margin and row 9 as wide as diameter of punctures in row 9, apex of aedeagus abruptly bulging in lateral view. **korthalsiae sp.nov.**
- At mid-elytra, interstice between row of punctures abutting lateral margin and row 9 much wider than diameter of punctures in row 9; apex of aedeagus gradually widening in lateral view. **elegans Baly, 1876**
- 12(8) Nine rows of punctures present on basal quarter of elytra, excluding scutellar and lateral rows. 13.
- Eight rows of punctures present on basal quarter of elytra. 16.
- 13(12) Elytra bicolorous, basally orange-yellow, apically black. 14.
- Elytra unicolorous, bluish-black with metallic lustre. 15.
- 14(13) Lateral margins of pronotum straight, angles of anterior margin of pronotum bend downwards in frontal view, tip of aedeagus not bending upwards. **salaccae sp.nov.**
- Lateral margins of pronotum undulated, angles of anterior margin of pronotum plain, not bending downwards in frontal view, tip of aedeagus bending upwards. **scipionae sp.nov.**

- 15(13) Pronotum reddish-orange, antenna of medium length, legs entirely orange, only apex of aedeagus thickened in lateral view.
 *cruentomarginata* Schöller, 2007
- Pronotum bluish-black with metallic lustre, antenna short, shorter than head and pronotum combined, legs entirely black.
 *brevicornis* Baly, 1869
- 16(12) Elytra unicolorous, black, angles of anterior margin of pronotum straight in frontal view. *parva* sp.nov.
- Elytra bicolorous, basal half orange-yellow, apex black, angles of anterior margin of pronotum bending downwards in frontal view.
 *pusilla* Gestro, 1896

Discussion

KALSHOVEN (1957) listed the host plants of Oriental and Australian Hispini, and JOLIVET & HAWKESWOOD (1995) listed the host plants of Chrysomelidae of the world. According to these reviews, the genera *Korthalsia*, *Iguanura*, *Orania* and *Daemonorops* have not been previously recorded as host plants for *Callispa* spp.

Apart from the new host plant records, the 20-month-field study by STEINER (2001) revealed little information on the ecology of *Callispa* spp. Generally the youngest leaf is preferred, where adults and larvae may be found feeding simultaneously. However, single beetles were found on a leaf in 60% of cases. The size of the plant seems to have no influence for host selection, and most species were found on several species of climbing palms. However, the occurrence of *Callispa* spp. was aggregated within the plantations, perhaps due to the distribution of palms with new leaves. Sometimes two species were found on the same leaf.

UHMANN (1951) discussed morphological characters for distinguishing species of *Callispa*, and SCHÖLLER (2007) added information, mainly on the male genitalia. The character states found in the new species described in this work fall within the character range described in the publications mentioned above.

The intensive field work of Helmut Steiner added 10 species of *Callispa* to the previously known 7 species known for the fauna of Malaysia. Since many were collected in disturbed habitats, we can expect the diversity of Oriental Hispine leaf beetles to be much wider than currently known.

Acknowledgements

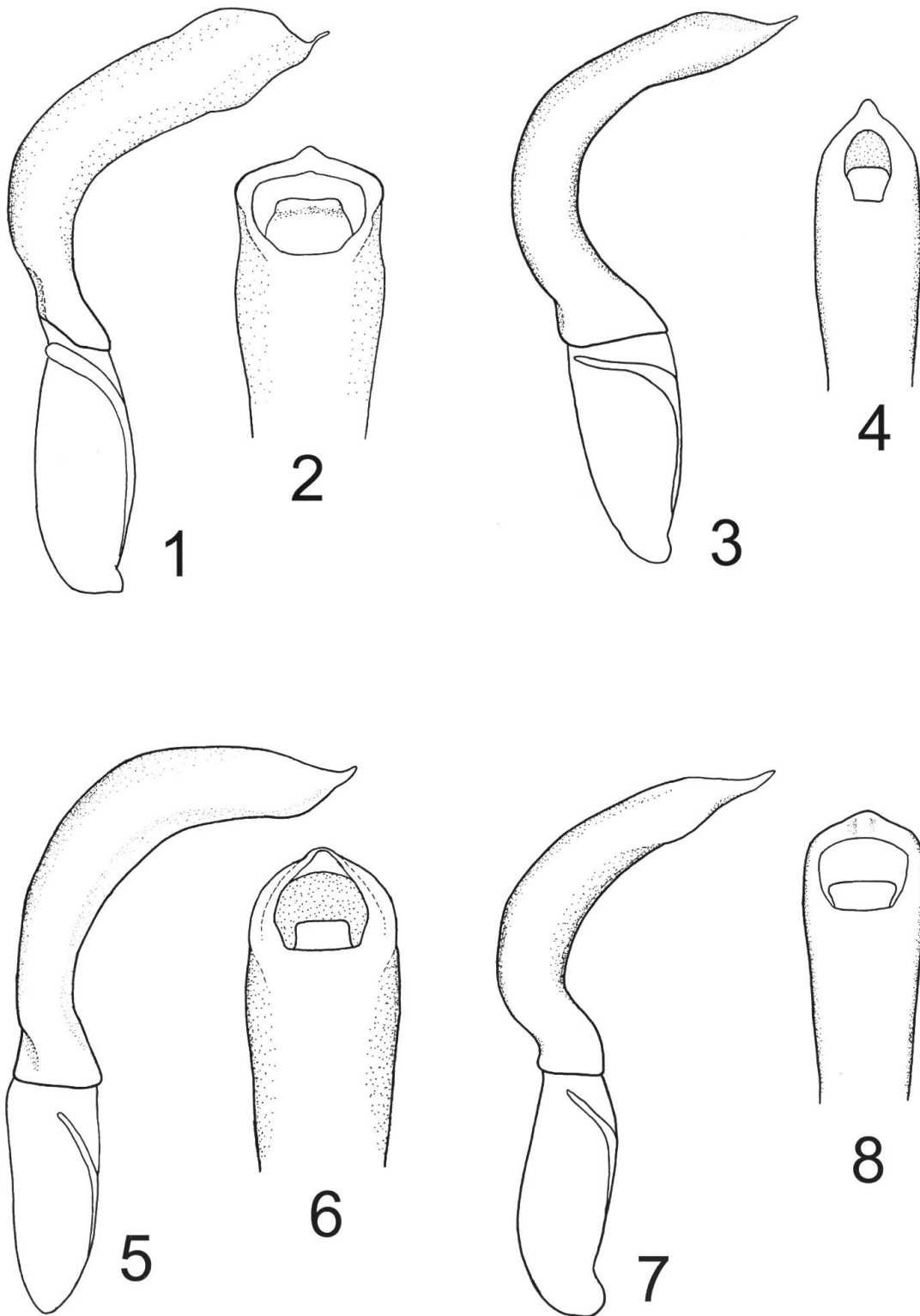
I would like to thank Helmut Steiner for the opportunity to study the specimens collected during his field survey, Dr. Lothar Zerche for access to the specimens from the Uhmman collection in the DEI in Müncheberg, and Lutz Behne, DEI for his support while taking the pictures.

References

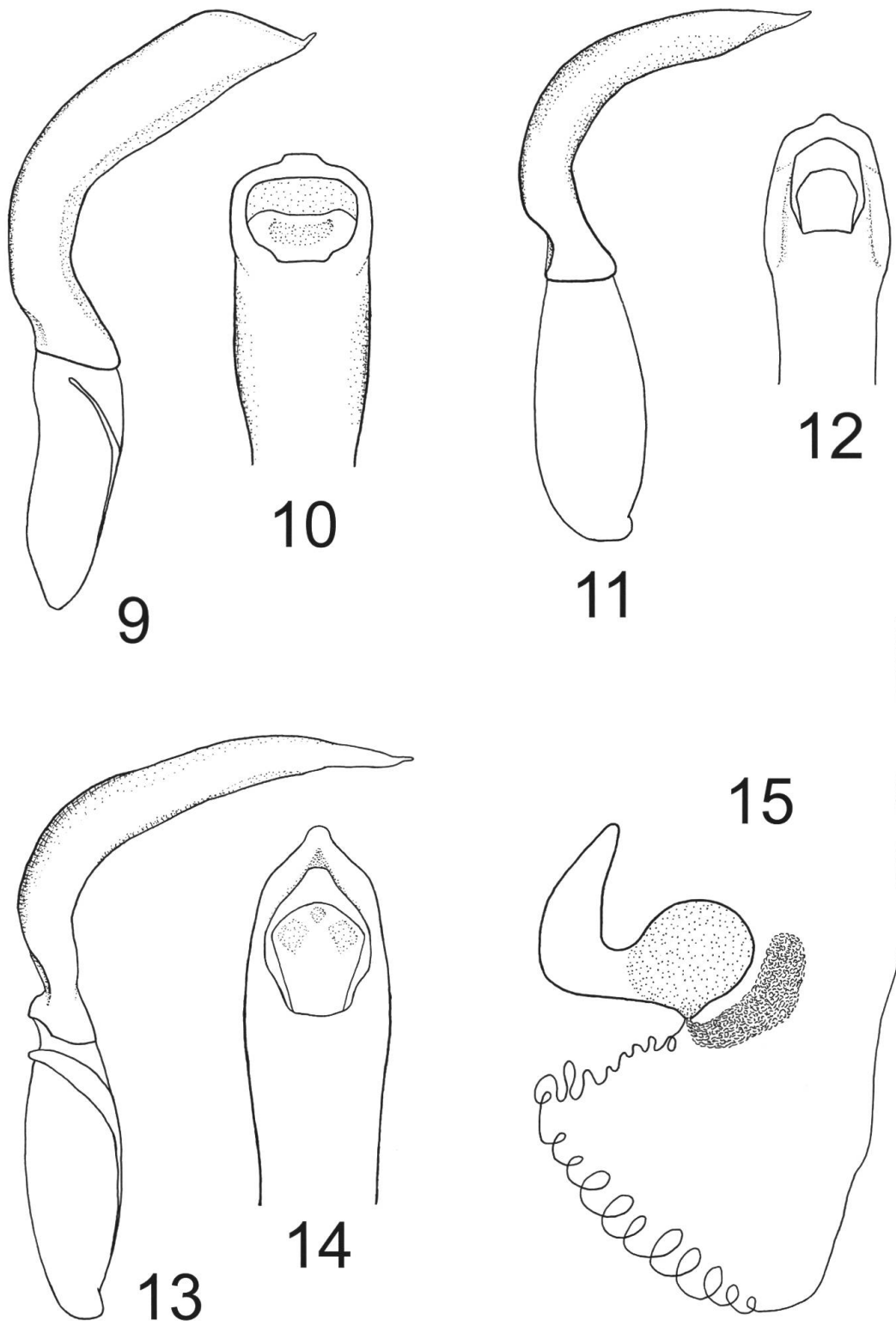
- JOLIVET P. & HAWKESWOOD T. (1995): *Host-plants of Chrysomelidae of the world*. Leiden, Backhuys Publishers, 211 pp.
- KALSHOVEN L. G. E. (1957): *An analysis of ethological, ecological and taxonomic data on Oriental Hispinae (Coleoptera, Chrysomelidae)*. Tijdschrift Entomologie **100(1)**: 5–24.
- MOHAMEDSAID M. S. (2004): *Catalogue of the Malaysian Chrysomelidae (Insecta: Coleoptera)*. Sofia, Pensoft Publishers, 239 pp.
- SCHÖLLER M. (2007): *New species of Callispa Baly, 1858 (Coleoptera, Chrysomelidae, Hispinae) feeding on Calamoid palms in Malaysia*. *Entomologica Basiliensia et Collectionis Frey* **29**: 333–343.
- STEINER H. (2001): *Rattan und Insekten – eine vergleichende Studie der Herbivorenfauna von Calamus manan und anderen Palmenarten auf der Halbinsel Malaysia*. PhD-study Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany, 369 pp.
- UHMANN E. (1951): *Austral-Asiatische Hispinae, VIII, Callispini*. *The Philippine Journal of Science* **80**: 343–362.

Author's address:

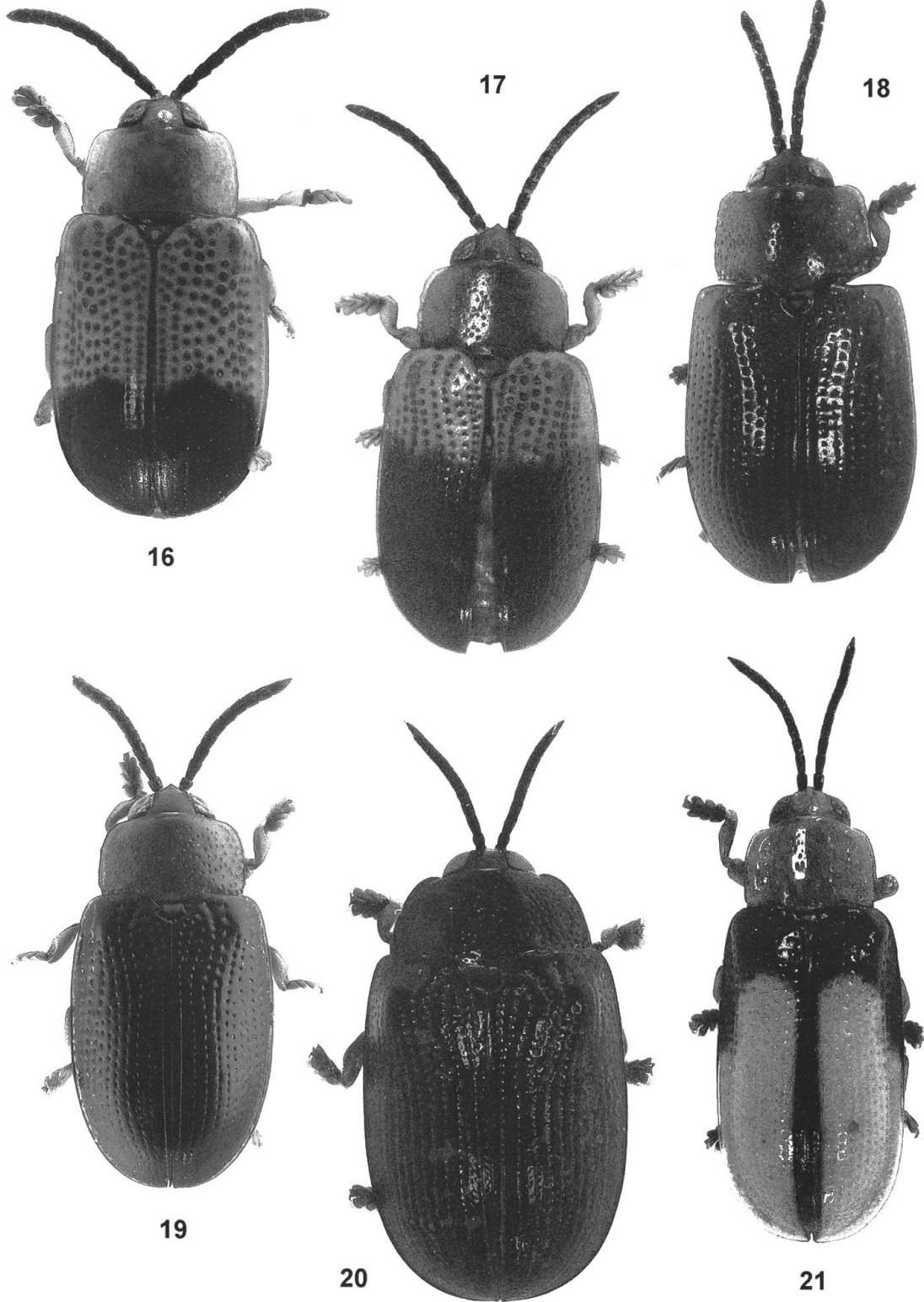
Dr. Matthias Schöller
Scharnweberstraße 5
D-10247 Berlin
GERMANY
E-mail: schoeller@tricho.b.shuttle.de



Figs 1–8. 1–2, *Callispa korthalsiae* sp.nov.: 1, aedeagus, lateral; 2, apex of aedeagus, dorsal; 3–4, *Callispa salaccae* sp.nov.: 3, aedeagus, lateral; 4, apex of aedeagus, dorsal; 5–6, *Callispa scipionae* sp.nov.: 5, aedeagus, lateral; 6, apex of aedeagus, dorsal; 7–8, *Callispa parva* sp.nov.: 7, aedeagus, lateral; 8, apex of aedeagus, dorsal.



Figs 9–15. 9–10, *Callispa elegans* Baly: 9, aedeagus, lateral; 10, apex of aedeagus, dorsal; 11–12, *Callispa pusilla* Gestro: 11, aedeagus, lateral; 12, apex of aedeagus, dorsal; 13–14, *Callispa scutellaris* Weise: 13, aedeagus, lateral; 14, apex of aedeagus, dorsal; 15, *Callispa salaccae* sp.nov.: spermatheca.



Figs 16–21. Habitus: 16, *Callispa korthalsiae* sp.nov.; 17, *Callispa salaccae* sp.nov.; 18, *Callispa scipionae* sp.nov.; 19, *Callispa parva* sp.nov.; 20, *Callispa scutellaris* Weise; 21, *Callispa amabilis* Gestro.