

Annotated type catalogue of the True Bugs (Insecta: Heteroptera) at the State Museum of Natural History Stuttgart

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Annotated type catalogue of the True Bugs (Insecta: Heteroptera) at the State Museum of Natural History Stuttgart

VIKTOR HARTUNG & ANDREAS HASELBÖCK

Abstract

The State Museum of Natural History Stuttgart (SMNS) holds one of the largest and most important insect collections in Germany. True bugs (Heteroptera), with 80.000 specimens at SMNS, have previously received little attention. Here, an annotated type catalogue of the Heteroptera collection is given. Type material of 67 nominal taxa is present at SMNS, among them types of 52 valid species and three valid subspecies. The families Miridae and Cydnidae contribute the largest number of types, but types from seven other families are also represented.

Key words: Heteroptera, type catalogue, collection, SMNS

Zusammenfassung

Das Staatliche Museum für Naturkunde Stuttgart beherbergt eine der größten und wichtigsten entomologischen Sammlungen Deutschlands. Die Teilsammlung Heteroptera, 80.000 Exemplare stark, hat bislang wenig Beachtung erfahren. Ein kommentierter Typenkatalog wurde nun erstellt. Typenmaterial von 67 Nominaltaxa wurde ermittelt, darunter 52 valide Arten und zwei valide Unterarten. Am häufigsten repräsentiert sind Typen der Miridae und Cydnidae, wobei auch Typen aus sieben weiteren Familien vorhanden sind.

Contents

1	Introduction	11
2	Material and Methods	11
3	Type Catalogue of Heteroptera	12
4	Discussion	34
5	References	35

1 Introduction

The State Museum of Natural History Stuttgart (SMNS) is one of the largest and most prominent natural history museums in Germany. Its collections amount to 12 million specimens, with almost 5 million insects, Coleoptera and Lepidoptera being the most numerous (MERKER & STANICZEK 2018). Although the specimens of Heteroptera (true bugs) count only around 80.000, they were estimated to contain at least 30 type series (MERKER & STANICZEK 2018). Diligent browsing established that the actual number of types summed up to 67 nominal taxa. Heteroptera specimens at SMNS belong to at least 65 different families (from 91 known to date; s. HENRY 2017), which along with the number of specimens and types makes it a significant collection. Besides, ICZN explicitly encourages institutions to publish data on type specimens in their possession (ICZN 1999: Recommendation 72F.4). For these reasons, an annotated catalogue of the SMNS Heteroptera type series is given here.

Acknowledgements

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2 Material and methods

The Heteroptera specimens at SMNS are organized according to the classification used by STICHEL (1956–62). The present catalogue follows the classification used in the Palearctic catalogue (ANDERSEN 1995, AUKEMA et al. 2013; JANSSON 1995; KERZHNER 1996; KERZHNER & JOSIFOV 1999; PERICART 1996; PUTSHKOV & PUTSHKOV 1996; RIDER 2006), with only two modifications: Micronectidae (NIESER 2002; NIESER & CHEN 2006) and Lyctocoridae (SCHUH & ŠTYS 1991; Henry 2017) are recognized as families.

The meticulous notation method of KMENT & KOLINOVA (2013) is applied here with some adjustments. For every taxon, the following information is provided: name in original combination and spelling with relevant publications (including pagination and figures); label data and information on damaged or dissected specimens; current status of taxon; other relevant information pertaining to taxon or specimens (as “remarks”).

Text on the label is given within quotation marks; information outside quotation marks is commentary on the condition of the specimen. Different labels are separated by double slash “//”, different lines in the same label by slash “/”. Data in square brackets are notes of the present author: [p] indicates that the preceding information is printed, [hw] – that it is hand-written. Unless otherwise indicated, the labels are white and the ink is black in case of printed labels or black/blue in case of hand-written ones. Peculiarities of spelling or typeset on the label are preserved: capitals, wider spacing or strikethrough are given as such. Species names in the label text are not italicized, unless they were italicized on the labels.

3 Type Catalogue of Heteroptera

Family Helotrephidae Esaki & China, 1927 Subfamily Helotrephinae Esaki & China, 1927 Tribe Helotrephini Esaki & China, 1927

Ascetotrepes schawalleri Zettel, 2009
Ascetotrepes schawalleri Zettel, 2009: 34–37, figs. 1–10 (original description).

Specimens in the collection of SMNS
(Fig. 1a–b)

Holotype (hindwing-micropterous ♂): “HOLOTYPUS / *Ascetotrepes* / *schawalleri* sp. n. / des. H. Zettel 2008 [p] [red label] // BORNEO: SABAH / Kinabalu N.P.: Poring / 500 m, 29.XI.–2.XII.1996 / leg. W. SCHAWALLER [p] [yellow label]”.

Paratype (hindwing-micropterous ♀): “PARATYPUS / *Ascetotrepes* / *schawalleri* sp. n. / des. H. Zettel 2008 [p] [red label] // BORNEO: SABAH / Kinabalu N.P.: Poring / 500 m, 29.XI.–2.XII.1996 / leg. W. SCHAWALLER [p] [yellow label]”

Current status. Valid species.

Hydrotrepes visayasensis Zettel, 2002
Hydrotrepes visayasensis Zettel, 2002: 53, 70–72, 94; figs. 38–40, 49, 54, 59, 126 (original description, key to the genus *Hydrotrepes*).

Specimens in the collection of SMNS

Two paratypes (one ♂, one ♀): “Paratypus / *Hydrotrepes* / *visayasensis* sp. n. / des. H. Zettel 2002 [p] [red label] // Philippinen: Leyte / Hilusig, rivers / 14.2.2000 / leg. H. Zettel (238) [p]” (Genitalia of ♂ are dissected and glued to the same card as the specimen).

Current status. Valid species (PAPÁČEK & ZETTEL 2004; CHEN et al. 2005).

Tribe Limnotrephini Polhemus, 1990

Idiotrepes asiaticus Papáček & Zettel, 2000
PAPÁČEK & ZETTEL 2000: 205, 210; figs. 18–23, 31, 55, 71 (original description, key to *Idiotrepes* species).

Specimen in the collection of SMNS

Paratype (♀): “Paratypus / *Idiotrepes* / *asiaticus* sp. n. / des. Papacek & Zettel 1998 [p] [red label] // Thailand: Chiang Mai Prov. / W Mae Rim, Mae Sa NP / Mae Sa Falls, 30–31.10/1995, leg. H. Zettel (2) [p]”.

Current status. Valid species (PAPÁČEK & ZETTEL 2004; CHEN ET AL. 2005; ZETTEL et al. 2011).

Family Micronectidae Jaczewski, 1924 Subfamily Micronectinae Jaczewski, 1924

Micronecta wui alkani Hoberlandt, 1952
Micronecta (*Micronecta*) *wui alkani* HOBERLANDT, 1952: 7–10, Pl. I: figs 1–12, Pl. IX: figs 65–68, Pl. X: fig. 74 (original description, key to subspecies of *M. wui*).

Specimen in the collection of SMNS

Paratype (♂): “*Micronecta* (M.) / *wui alkani* [hw] / 19[p]48 sp. n. ♂ [hw] / L. Hoberlandt det. [p] [w]// Paratypus [p] / *Micronecta* / *wui alkani* / sp. n. ♂ [hw] / det. L. Hoberlandt, 19 [p] 48 [hw] [red label] // Paratypus [red label] // Alacakilise [hw] / Anat. [p] 21.viii.47 [hw] / Exp N. Mus. ČSR [p]”

Current status. Valid subspecies (WRÓBLEWSKI 1962a; JANS-SON 1995; FENT et al. 2011; KMENT & KOLINOVÁ 2013).

Family Veliidae Brullé, 1836 Subfamily Microveliinae China & Usinger, 1949 (1860) Tribe Microveliini China & Usinger, 1949 (1861)

Microvelia hozari Hoberlandt, 1952
Microvelia hozari Hoberlandt, 1952: 29–32, figs. 46–55, 75 (original description, differential diagnosis).

Specimen in the collection of SMNS

Paratype (♂): “Paratypus [d] / *Microvelia* / *hozari* sp. n. / anl. (?) ♂ [all hw, pink label] / det. L. Hoberlandt, 19 [d]48 [hw] // Paratypus // Kilis [hw] / Anat. [d] 20.viii.47. [hw] / Exp N. Mus. ČSR [d]”

Current status. Valid species *Microvelia* (*Picaultia*) *hozari* Hoberlandt, 1952 (ANDERSEN 1995; ANDERSEN & WEIR 2003; FENT et al. 2011; AUKEMA et al. 2013).

Subfamily Veliinae Brullé, 1836

Velia filippi anatolica Tamanini, 1951
Velia filippi anatolica TAMANINI 1951: 1–3, figs. B, D–F, L, N–Q (original description).

Specimen in the collection of SMNS

Paratype (♂): “Paratypus [p] ♂ / *Velia filippi* ssp. / *anatolica* ssp. n. / Tamanini [hw, pink label] // Bürücek, Toros / Anat. 29–31.7.47 / Exp N. Mus. ČSR [p]”

Current status. Junior synonym of *Velia* (*Plesiovelia*) *affinis affinis* Kolenati, 1857 (s. TAMANINI 1952, 1953; ANDERSEN 1995).

Family Tingidae Laporte, 1832
Subfamily Tinginae Laporte, 1832

Ildefonsus ampliatus Péricart, 1985
Ildefonsus ampliatus Péricart, 1985: 678–680, fig. 2 (original description).

Specimen in the collection of SMNS
(Fig. 2a–b)

Holotype (♂): “*Ildefonsus* / *ampliatus* m, n. sp. / Holotype ♂ / J. Péricart 1984 [hw, red label] // 292 Taplejung/Terhatum / Dist., zw. Mitalung u. Dumhan / 950–750m Flußufer, Gebüsch / 15Sep83 MARTENS & DAAMS l. [p]”.

Current status. Valid species (LI & ZHENG, 2006).

Family Reduviidae Latreille, 1807
Subfamily Emesinae Amyot & Serville, 1843
Tribe Metapterini Stål, 1874

Pseudonychomesa martensi Popov, 1991
Pseudonychomesa martensi Popov, 1991: 260–263, figs. 1–10. (original description).

Specimen in the collection of SMNS
(Fig. 3a–b)

Holotype (♀): “*Holotypus* [p] / *Pseudonychomesa* / *martensi* Yu. Popov [hw, red label] // NEPAL-Expeditionen / Jochen Martens [p] // Tukche / 2500 m / 1.X.1969 [hw]” (Head and pronotum are separated from the rest of the body and glued to a card that is pinned to the same needle as the rest of the specimen.).

Current status: valid species.

Remark. *P. martensi* is the type species of the monotypic genus *Pseudonychomesa*.

Schidium schawalleri Popov, 1991
Schidium schawalleri Popov, 1991: 264–266, figs. 11–17 (original description).

Specimen in the collection of SMNS
(Fig. 4a–b)

Holotype (♀): “*Holotypus* [p] *Schidium* / *schawalleri* / Yu. Popov [hw, red label] // NEPAL-Expeditionen / Jochen Martens [p] // Dolpo Dist., Tarakot- / Dunaki, 2300 m, J. M. / leg. 8 Juni 1970 [hw]”

Current status: valid species.

Tribe Ploiariini Van Duzee, 1916

Empicoris mediterraneus Hoberlandt, 1956
Empicoris mediterraneus Hoberlandt, 1956: 74–76, figs. 23–28 (original description).

Specimen in the collection of SMNS

Paratype (♀): “*Paratypus* [p] / *Empicoris* / *mediterraneus* / n. sp. f. [hw] / Det. l. Hoberlandt, 19[d]54[hw] [rose label] // Adana / Anat. 1–3.8.47 / Exp. N Mus. ČSR. [p]”

Current status. Valid species (PUTSHKOV & PUTSHKOV 1996; PUTSHKOV et al. 1999; PUTSHKOV & MOULET 2010; AUKEMA et al. 2013).

Family Nabidae A. Costa, 1853
Subfamily Prostemmaeinae Reuter, 1890
Tribe Prostemmaeini Reuter, 1890

Prostemma fasciatum sulawesiense Kerzhner & Strommer, 1990
Prostemma fasciatum sulawesiense Kerzhner & Strommer, 1990: 27–28, 31, figs. 1c, 2d, 4 (original description, key to Australian *Prostemma* species and *P. fasciatum* subspecies).

Specimen in the collection of SMNS

Paratype (♀): “*Paratypus* [p] *Prostemma* / *fasciatum* ♀ / *sulawesiense* Kerzh. [hw, red label] // South Celebes / Lompoh Batang / 200 m / leg. H. Lucht [p]”

Current status: valid subspecies (KERZHNER, 1996).

Remark. In the original description it is stated that the specimen at the time of the description was deposited at the Agricultural University, Wageningen, Netherlands.

Family Lyctocoridae Schuh & Štys, 1991

Lyctocoris nidicola Wagner, 1955
Lyctocoris nidicola Wagner, 1955: 60–62, figs. 1B, 2A, D, G (original description).

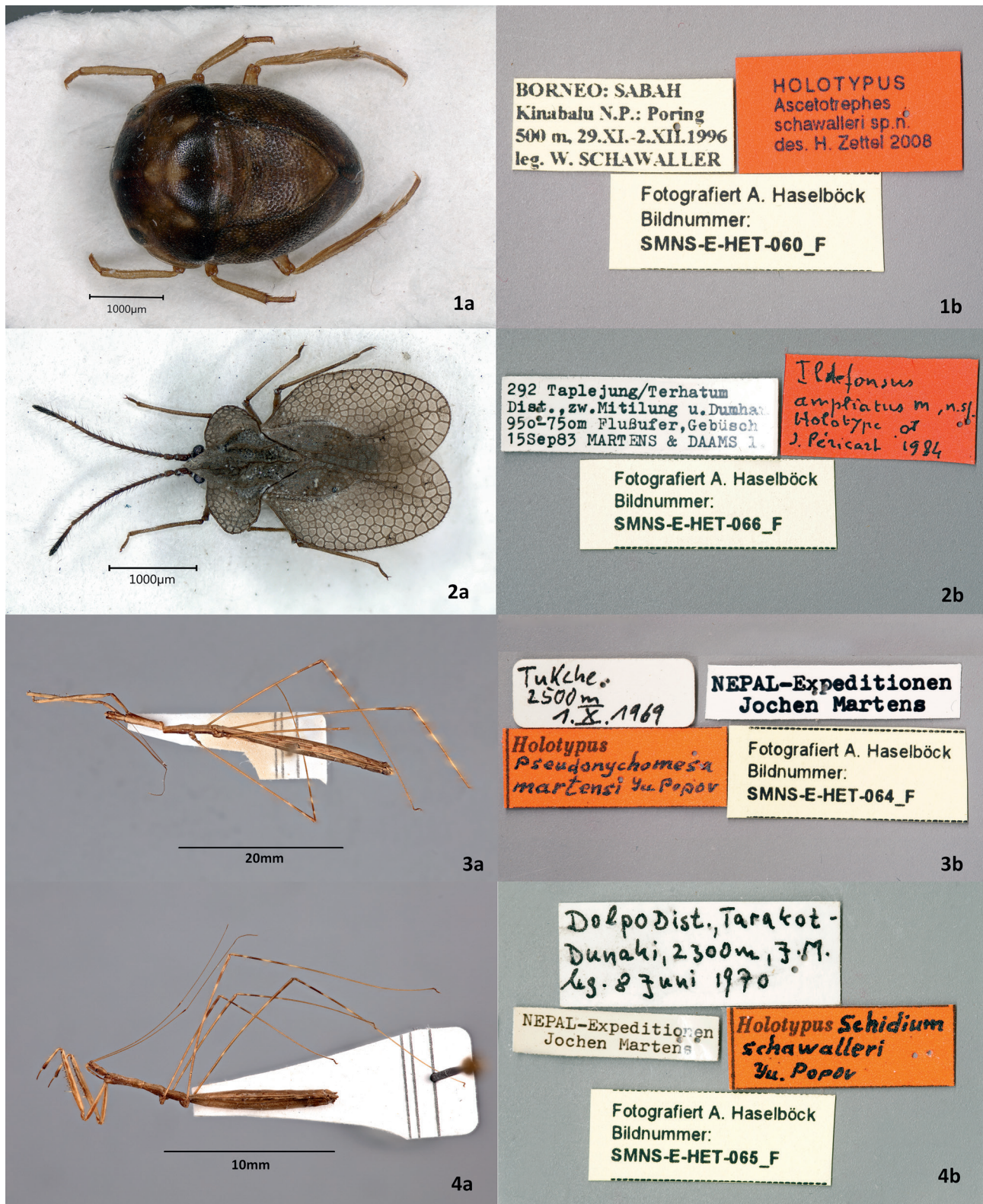
Specimens in the collection of SMNS

Two paratypes (♂♂): “*Paratypoid* [p, pink label, with black submarginal frame] // *Lyctocoris* / *nidicola* / E. Wg. [hw] // Suomi V Turku / 194 / R. Linnavuori leg. [p]” (The two specimens are glued to different cards but are pinned on the same needle).

Current status. Valid species (PÉRICART 1996)

Family Miridae Hahn, 1833
Subfamily Deraeocorinae Douglas & Scott, 1865
Tribe Deraeocorini Douglas & Scott, 1865

Deraeocoris addendus Linnavuori, 1960
Deraeocoris addendus addendus Linnavuori, 1960: 66–68, figs. 20b–m, 21b, 22 (original description).



Figures 1–4. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 1a–b, *Ascetotrephes schawalleri*. 2a–b, *Ildefonsus ampliatus*. 3a–b, *Pseudonychomesa martensi*. 4a–b, *Schidium schawalleri*.

Specimens in the collection of SMNS

One paratype ♂: “Paratypoid [p, red label, black submarginal frame] // *Deraeocoris* / addendus L (?) U (?) [hw] // [red label without text] // Israel [p] / Gvuloth 17.7. [hw] 1958 / Linnavuori leg. [p]”

One paratype ♀: “Paratypoid [p, red label, black submarginal frame] // [red label without text] // Israel [p] / Gvuloth 17.7. [hw] 1958 / Linnavuori leg. [p]”

Current status. Valid species *Deraeocoris* (*Plexaris*) *addendus addendus* Linnavuori, 1960 (KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).

Subfamily Mirinae Hahn, 1833
Tribe Mirini Hahn, 1833

Closterotomus picturatus lesvou Rieger & Grimm, 1999
Closterotomus picturatus lesvou Rieger & Grimm, 1999: 227–230, figs. 1a, 2, 3e–h (original description).

Specimen in the collection of SMNS

Holotype ♂: “Typus / *Closterotomus* / *picturatus lesvou* n. ssp. / Rieger & Grimm [p] [red label] // GR: Insel Lesbos, NW / Ayia Paraskevi, / Kulturland, Quercus, / 19.5.1996, leg. D. Grimm [p]”. (The genitalia are dissected and glued to a transparent card pinned on the same needle with the specimen.)

Current status. Junior synonym of *Closterotomus picturatus picturatus* (Reuter, 1896) (s. RIEGER 2006).

Creontiades pallidus virens Wagner, 1957
Creontiades pallidus virens Wagner, 1957: 76, 83–84, figs. 18–21 (original description).

Specimens in the collection of SMNS

Holotype ♂: „TYPUS [p] / *Creontiades* / *pallidus* / *virens* n. sbp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 11.–21.IV.1954 / Richter u. Schäuuffele [p] [blue label]”

Allotype ♀: “ALLOTYPOID [p] / *Creontiades* / *pallidus* / *virens* n. sbp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / nrdwestl. Iranshar / Trockental [p] 31.III. [hw] 1954 / Richter u. Schäuuffele [p] [blue label]”

Current status. Junior synonym of *Creontiades pallidus* (Rambur, 1842) (LINNAUORI 1986: 136).

Remark. The paratype specimens that are mentioned in the original description by WAGNER were not found in the SMNS collection.

Dionconotus neglectus creticus Heiss, 1984
Dionconotus neglectus creticus Heiss, 1984: 142–143, figs. 13–17, 20, 22, 24, 26 (original description).

Specimens in the collection of SMNS

Two paratypes (one ♂, one ♀): “P A R A T Y P U S [p] / *Dioncon.* negl. / *creticus* [hw] / E. HEISS 19[p]84[hw] [red label] // K R E T A / Aghios Varvára / 24.4.–3.5.80 Heiss [p]”

Current status. Valid subspecies *Dionconotus confluens creticus* Heiss, 1984 (KERZHNER & JOSIFOV 1999).

Lygus eurystylioides Wagner, 1957
Lygus (*Orthops*) *eurystylioides* Wagner, 1957: 77, 86–87, figs. 31–35 (original description).

Specimens in the collection of SMNS
(Fig. 5a–b)

Holotype ♂: „TYPUS [p] / *Orthops* / *eurystylioides* / n. sbp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]”. (The genitalia are dissected and with parts of the abdomen glued to a card pinned to the same needle as the specimen.)

Allotype ♀: “ALLOTYPOID [p] / *Orthops* / *eurystylioides* / n. sbp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]”

Paratype ♂: “PARATYPOID [p] / *Orthops* / *eurystylioides* / n. sbp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [blue label]”

Current status. Valid species *Lygidolon eurystylioides* (Wagner, 1957) (s. LINNAUORI 1975: 37; KERZHNER & JOSIFOV 1999).

Remark. The original description by WAGNER (1957) mentions that besides the holo- and allotype three paratypes are deposited in the SMNS collection, but only one was found.

Lygus italicus orientalis Linnavuori, 1960
Lygus italicus orientalis Linnavuori, 1960: 64, figs. 19b–d (original description).
Lygus italicus israelensis Linnavuori, 1962: 78 (replacement name for *L. i. orientalis*, a junior homonym of *L. kalmi orientalis*).

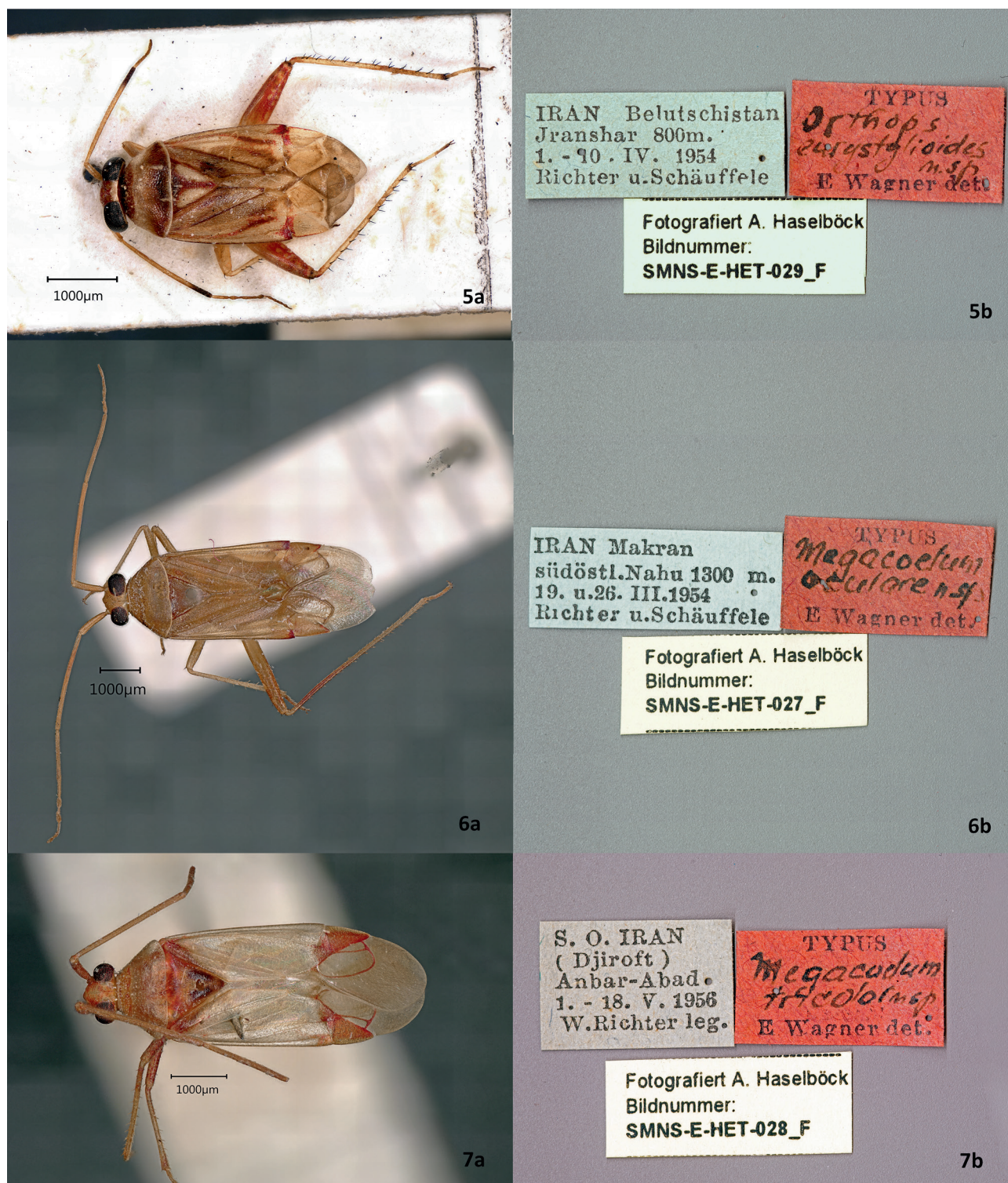
Specimen in the collection of SMNS

Paratype ♀: “Paratypoid [p] [red label with black submarginal border] // *Lygus* / *italicus* / *orientalis* / Lv. [hw] // [red label without text] // Israel [p] / Hula 10.7.[hw] 1958 / R. Linnavuori leg. [p]”

Current status. Valid species: *Lygus israelensis* Linnavuori, 1962 (AGLYAMZYANOV 2006; AUKEMA et al. 2013).

Remark. The original publication of LINNAUORI (1960) provides the following location information on the specimen, which is absent from the labels: “Nabi Rubin 4.VII.1958!; Bet Dagan 9.VI.1958”

Megacoelum oculare Wagner, 1957
Megacoelum oculare Wagner, 1957: 84–86, figs. 25–30 (original description).



Figures 5–7. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. –5a–b, *Lygidolon eurystylioides* (Labeled as *Orthops eurystylioides*). 6a–b, *Megacoelum oculare*. 7a–b, *Megacoelum tricolor*.

Specimens in the collection of SMNS
(Fig. 6a–b)

Holotype ♂: “TYPUS [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Makran / südostl. Nahu 1300 m. / 19.u.26.III.1954 / Richter u. Schäuflfele [p] [blue label]”

Allotype ♀: “ALLOTYPoid [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN (MAKRAN) / Chahbar Küste / 21.–24.III.1954 / Richter u. Schäuflfele [p] [blue label]”

Five paratypes (three ♂♂, two ♀♀): “PARATYPoid [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Makran / südostl. Nahu 1300 m. / 19. u. 26.III. 1954 / Richter u. Schäuflfele [p] [blue label]”. (The genitalia of one of the ♂♂ are dissected and glued to a card pinned to the same needle as the specimen.)

One paratype ♀: “PARATYPoid [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 10.VII.–21.VII.1954 / Richter u. Schäuflfele [p] [grey label]”

One paratype ♀: “PARATYPoid [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN (MAKRAN) / Chahbar Küste / 21.–24.III.1954 / Richter u. Schäuflfele [p] [blue label]”

One paratype ♀: “PARATYPoid [p] / Megacoelum / oculare n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.V.1954 / Richter u. Schäuflfele [p] [grey label] // ♀ [p]”

Current status. Valid species (LINNAVUORI & VAN HARTEN 1997; KERZHNER & JOSIFOV 1999; CHÉROT & MALIPATIL 2016).

Megacoelum tricolor Wagner, 1958

Megacoelum tricolor Wagner, 1958: 4–5, figs. 1–6 (original description).

Specimens in the collection of SMNS
(Fig. 7a–b)

Holotype ♂: “TYPUS [p] / Megacoelum / tricolor n. sp. [hw] / E. Wagner det. [p] [red label] // S. O. IRAN / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter leg. [p] [grey label]” (The genitalia are dissected and with parts of the abdomen glued to the same card with the specimen.).

Allotype ♀: “ALLOTYPoid [p] / Megacoelum / tricolor n. sp. [hw] / E. Wagner det. [p] [red label] // S. O. IRAN / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter leg. [p] [grey label]”

Two paratypes (♀♀): “PARATYPoid [p] / Megacoelum / tricolor n. sp. [hw] / E. Wagner det. [p] [pink label] // S. O. IRAN / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter leg. [p] [grey label]”

Four paratypes (one ♂, three ♀♀): “ALLOTYPoid [p] / Megacoelum / tricolor n. sp. [hw] / E. Wagner det. [p] [pink label] // S. O. IRAN / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter leg. [p] [grey label]”

Current status. Valid species (KERZHNER & JOSIFOV 1999; CHÉROT & MALIPATIL 2016).

Phytocoris aietes Linnavuori, 1971

Phytocoris aietes Linnavuori, 1971a: 127, figs. 2f, 3a, 4a–b, 5c (original description, key to *lineaticollis*-group).

Specimen in the collection of SMNS
(Fig. 8a–b)

Holotype ♂: “Phytocoris / aietes Lv. [hw] // Holotypus [p] [red label] // Phytocoris / zarudnyi / Reut. [hw] / Ed. Wagner det. [p] // IRAN Makran / südostl. Nahu 1300 m. / 19.u.26.III.1954, Richter u. Schäuflfele [p] [blue label]” (The genitalia are dissected and with parts of the abdomen glued to the same card as the specimen).

Current status. Valid species: *Phytocoris (Eriamiris) aietes* Linnavuori, 1971 (KERZHNER & JOSIFOV 1999).

Phytocoris brevirostris Wagner, 1957

Phytocoris brevirostris Wagner, 1957: 76, 79–80, figs. 1–6 (original description).

Specimens in the collection of SMNS
(Fig. 9a–b)

Holotype ♂: “TYPUS [p] / Phytocoris / brevirostris / n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN (MAKRAN) / am Kahuran bei / Putab, 25.III.1954 / Richter u. Schäuflfele [p] [blue label]”

Allotype ♀: “ALLOTYPoid [p] / Phytocoris / brevirostris / n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Makran / südostl. Nahu 1300 m. / 19.u.26.III.1954 / Richter u. Schäuflfele [p] [blue label]”

Current status. Valid species *Phytocoris (Eriamiris) brevirostris* Wagner, 1957 (KERZHNER & JOSIFOV 1999).

Remark. The paratype specimen mentioned in the original description by WAGNER was not located in the SMNS collection.

Phytocoris calliger Wagner, 1957

Phytocoris calliger Wagner, 1957: 76, 80–81, figs. 7–11 (original description).

Specimens in the collection of SMNS
(Fig. 10a–b)

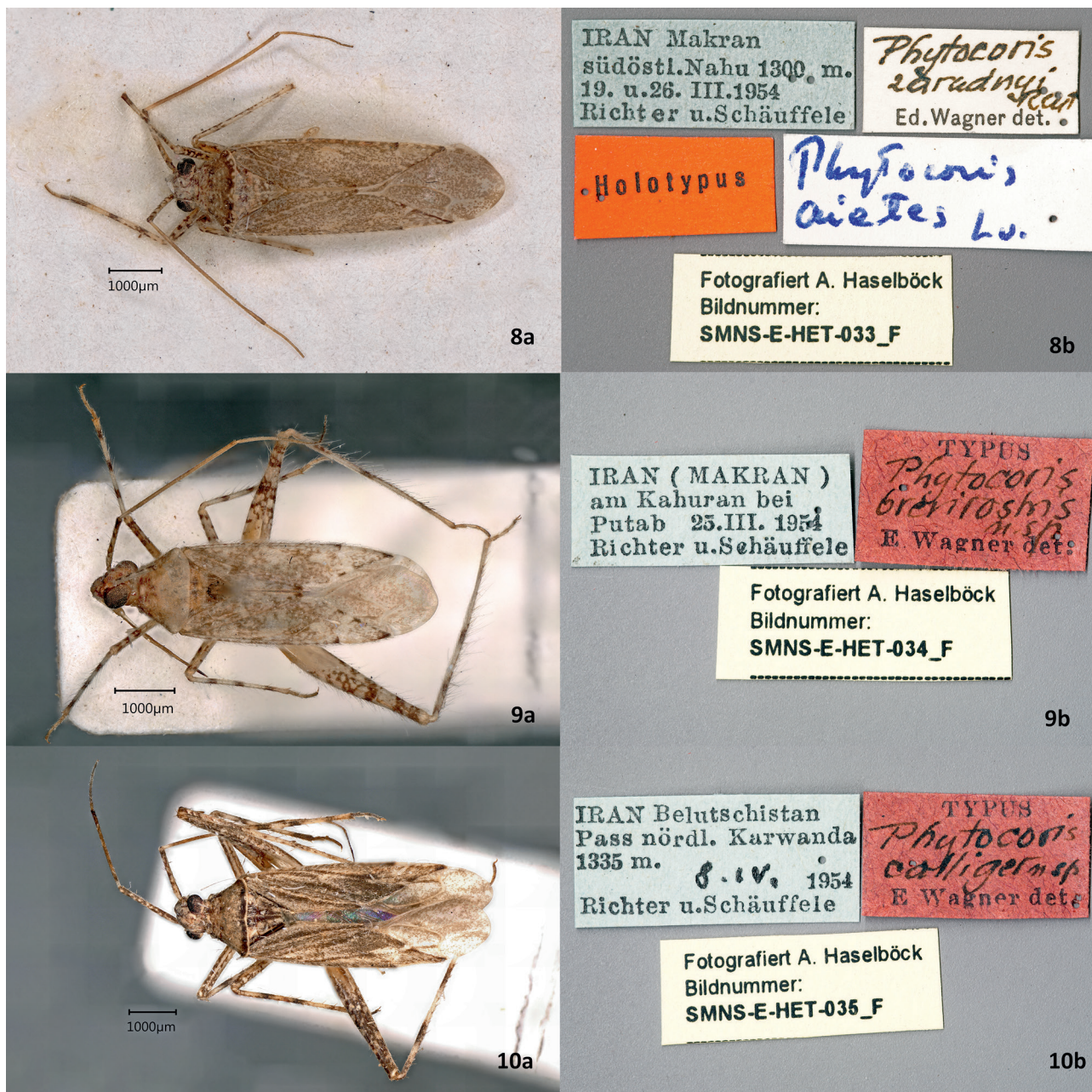
Holotype ♂: “TYPUS [p] / Phytocoris / calliger n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Pass nördl. Karwanda / 1335 m. [p], 8.IV. [hw] 1954 / Richter u. Schäuflfele [p] [blue label]”

Paratype ♂: “PARATYPoid [p] / Phytocoris / calliger n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Pass nördl. Karwanda / 1335 m. [p], 8.IV. [hw] 1954 / Richter u. Schäuflfele [p] [blue label]”

Current status. Valid species *Phytocoris (Phytocoris) calliger* Wagner, 1957 (KERZHNER & JOSIFOV 1999; GHAHARI & CHÉROT 2014; although LINNAVUORI 2000 transfers this species to the subgenus *Eckerleinius* and AUKEMA et al. 2013 follow him).

Phytocoris crito Linnavuori, 1972

Phytocoris crito Linnavuori 1972: 163, 166–67, figs. 5a–f (original description, key to *lineaticollis* group).



Figures 8–10. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 8a–b, *Phytocoris aietes*. 9a–b, *Phytocoris brevirostris*. 10a–b, *Phytocoris calliger*.

Specimen in the collection of SMNS
(Fig. 11a–b)

Holotype ♂: “*Phytocoris / crito* Lv. [hw] // *Phytocoris / lineaticollis* / Reut. [hw] / Ed. Wagner det. [p] // IRAN Belutschistan / südwestl. Iranshar / Bampurufur [p] 5. III. [hw] 1954 / Richter u. Schäuuffele [p] [grey label] // typus [p] [red label]”. (The genitalia are dissected and with parts of the abdomen glued to a card pinned to the same needle as the specimen.)

Current status. Valid species *Phytocoris* (*Eckerleinius*) *crito* Linnavuori, 1972 (KERZHNER & JOSIFOV 1999; LINNAVUORI 2000; AUKEMA et al. 2013; GHAHARI & CHÉROT 2014).

Phytocoris kerzhneri Linnavuori, 1971

Phytocoris kerzhneri Linnavuori, 1971a: 127–128, figs. 2d–e, g, 3c–d, 4c–d, 5a, d–e (original description, key to *lineaticollis*-group).

Specimen in the collection of SMNS

Paratype ♂: “Phytocoris / kerzhneri Lv. [hw] // IRAN (MAKRAN) / am Kahuran bei / Putab 25.III.1954 / Richter & Schäuffele [p] [grey label] // Paratypus [p] [red label]”. (The genitalia are dissected and with parts of the abdomen glued to a card pinned to the same needle as the specimen.)

Current status. Valid species: *Phytocoris (Eriamiris) kerzhneri* Linnavuori, 1971 (KERZHNER & JOSIFOV, 1999).

Phytocoris schaeuffelei Wagner, 1957

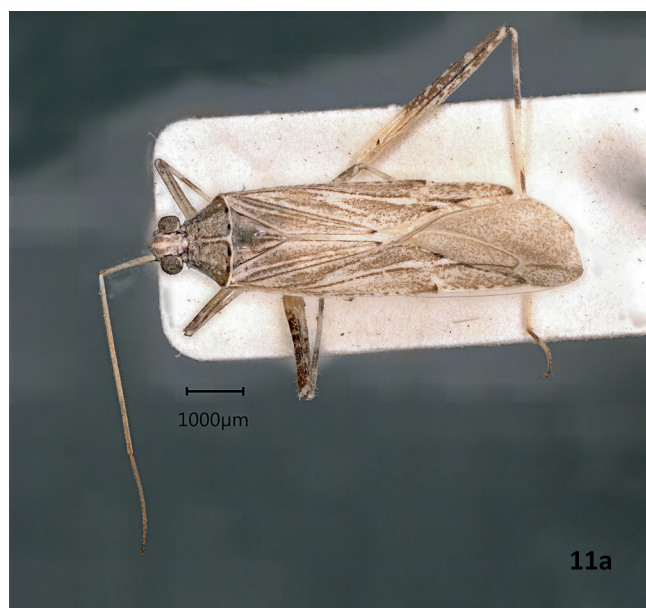
Phytocoris schäuuffelei Wagner, 1957: 76, 82–83, figs. 12–17 (original description).

Specimens in the collection of SMNS

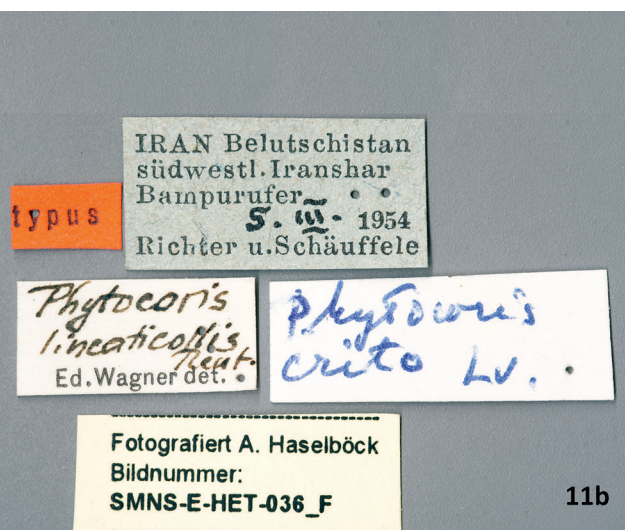
(Fig. 12a–b)

Holotype ♂: „TYPUS [p] / Phytocoris / schaeuffelei / n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Pass nördl. Karwanda / 1335 m. [p], 8.IV. [hw] 1954 / Richter u. Schäuuffele [p] [blue label]” (The genitalia are dissected and with parts of the abdomen glued to a card pinned at the same needle with the specimen).

Paratype ♂: „PARATYPOID [p] / Phytocoris / schaeuffelei / n. sp. [hw] / E. Wagner det. [p] [pink label] // HYPOTYPOID [p] / Phytocoris / sahlbergi Reut. [hw] / E. Wagner det. [p] [yellow label] // IRAN Belutschistan / Pass nördl. Karwanda / 1335 m. [p], 8.IV. [hw] 1954 / Richter u. Schäuuffele [p] [blue label]”



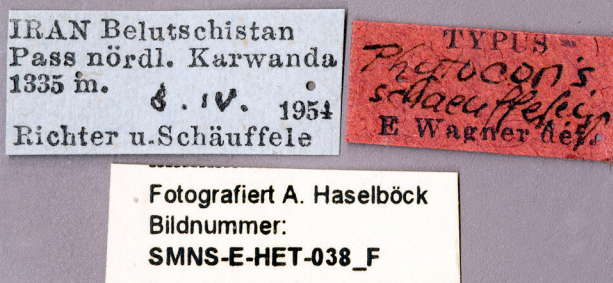
11a



11b



12a



12b

Figures 11–12. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. 11a–b, *Phytocoris crito*. 12a–b, *Phytocoris schaeuffelei*.

Current status. Valid species *Phytocoris* (*Eckerleinius*) *schaeuffelei* Wagner, 1957 (KERZHNER & JOSIFOV 1999; LINNAVUORI 2000; AUKEMA et al. 2014; GHAHARI & CHÉROT 2014).

Tribe Stenodemini China, 1943

Trigonotylus erhardi Grimm & Rieger, 1998

Trigonotylus erhardi Grimm & Rieger, 1998: 139–141, figs. 1–6 (original description).

Specimens in the collection of SMNS
(Fig. 13a–b)

Holotype ♂: „Holotypus / Trigonotylus / erhardi n. sp. / Grimm & Rieger det. [p] [red label] // GR 95–16, Insel Lesbos, / W Skála Kalonís, Strand / & Lagune, leg. F. Erhard / 15.V.1995 [p]“ (The genitalia are dissected and with parts of the abdomen glued to a transparent card pinned to the same needle as the specimen.)

Five paratypes (one ♂ and four ♀♀): „Paratypus / Trigonotylus / erhardi n. sp. / Grimm & Rieger det. [p] [red label] // GR 95–16, Insel Lesbos, / W Skála Kalonís, Strand / & Lagune, leg. F. Erhard / 15.V.1995 [p]“

Four paratypes (three ♂♂ and one ♀): „Paratypus / Trigonotylus / erhardi n. sp. / Grimm & Rieger det. [p] [red label] // GR: Insel Lesbos, W Sk. / Kalonís, Sandstrand / Salzstellen; 18.5.1996, / leg. D. Grimm [p]“

One paratype ♂: „Paratypus / Trigonotylus / erhardi n. sp. / Grimm & Rieger det. [p] [red label] // GR 95–16: Ins. Lesbos / W Skala Kalonis / 15.V.1995 leg. / ERHARD & SCHMALFUSS [p]“

Current status. Valid species (KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).

Trigonotylus kalonis Grimm & Rieger, 1998

Trigonotylus kalonis Grimm & Rieger, 1998: 141–142, figs. 7–12 (original description).

Specimens in the collection of SMNS
(Fig. 14a–b)

Holotype ♂: „Holotypus / Trigonotylus / kalonis n. sp. / Grimm & Rieger det. [p] [red label] // GR 95–12: Insel Lesbos, / Skála Kalonís, Strand / Flußmündung; leg. / D. Grimm, 11.V.1995 [p]“ (The genitalia are dissected and with parts of the abdomen glued to a transparent card pinned to the same needle as the specimen.)

Two paratypes (♂ and ♀): „Paratypus / Trigonotylus / kalonis n. sp. / Grimm & Rieger det. [p] [red label] // GR: Insel Lesbos, W Sk. / Kalonís, Sandstrand / Salzstellen; 18.V.1996 / leg. D. Grimm [p]“ (The genitalia of the ♂ are dissected and with parts of the abdomen glued to a transparent card pinned to the same needle as the specimen.)

Current status. Valid species (KERZHNER & JOSIFOV 1999).

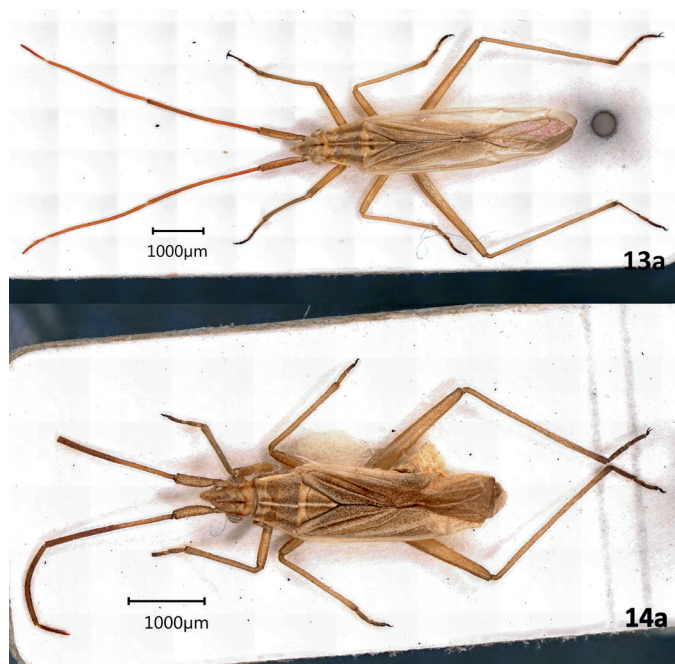
Subfamily Orthotylinae Van Duzee 1916 (1865) Tribe Halticini Costa, 1853

Euryopicoris fennicus Wagner, 1954

Euryopicoris fennicus Wagner 1954: 82–84, figs. 1–6 (original description).

Specimen in the collection of SMNS

Paratype ♀: “Paratypoid [p] [red label with a black submarginal border] // PARATYPOID [p] / Euryopicoris / fennicus n.



Figures 13–14. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. . – 13a–b, *Trigonotylus erhardi*. 14a–b, *Trigonotylus kalonis*.

sp. [hw] / E. Wagner det. [p] [pink label] // Kuhmo / Finnland / Livuori [sic!] [hw]"

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Remark. In the original description by WAGNER (1954) the collection date is given as 15.–29.6.53 and the collector specified as LINNAVUORI.

Tribe Orthotylini Van Duzee, 1916 (1865)

Orthotylus argenteopunctatus Wagner, 1957

Orthotylus (Melanotrichus) argenteopunctatus Wagner, 1957: 77, 87–88, figs. 36–39 (original description).

Specimens in the collection of SMNS

Holotype ♂: "TYPUS [p] / *Orthotylus* / *argenteopunctatus* / tus n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label]" (The genitalia are dissected and glued to the same card as the specimen, parts of the abdomen missing.)

Allotype ♀: "ALLOTYPIC [p] / *Orthotylus* / *argenteopunctatus* / n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label]"

Six paratypes (three ♂♂ and three ♀♀): "PARATYPIC [p] / *Orthotylus* / *argenteopunctatus* / tus n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]"

One paratype ♂: "PARATYPIC [p] / *Orthotylus* / *argenteopunctatus* / n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label] // ♂ [p]"

Two paratypes (♀♀): "PARATYPIC [p] / *Orthotylus* / *argenteopunctatus* / n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]"

Current status. Junior synonym of *Orthotylus (Melanotrichus) hirtulus* Wagner, 1951 (LINNAVUORI 1986:145; KERZHNER & JOSIFOV 1999).

Orthotylus divisus Linnavuori, 1961

Orthotylus divisus Linnavuori, 1961: 7–8, figs. 3i, 4b–c, h (original description).

Specimen in the collection of SMNS

Paratype (sex is not recognizable in the glued specimen): "Paratypoid [p] [red label with black submarginal border] // *Orthotylus* / *divisus* LV. [hw] // [red label without text] // Israel [p] Revivim 1.9.[hw] 1958 / R. Linnavuori leg. [p]"

Current status. Valid species: *Orthotylus (Melanotrichus) divisus* Linnavuori, 1961 (KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).

Remark. In the original description by LINNAVUORI (1961) the collection date is given as 2.VIII.1958.

Zanchius alatanus Hoberlandt, 1956

Zanchius alatanus Hoberlandt, 1956: 45–48, figs. 7–12 (original description).

Specimen in the collection of SMNS

Paratype ♂: "Paratypus [p] / *Zanchius* / *alatanus* n. sp. ♂ [hw] / Det. L. Hoberlandt, 19[p]54[hw] [red label] // Alata / Anat. 26.VIII.47 / Exp. N. Mus. CSR [p]"

Current status. Valid species (KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).

Subfamily Phylinae Douglas & Scott, 1865

Tribe Phylini Douglas & Scott, 1865

Atomophora maculosa erato Linnavuori, 1971

Atomophora maculosa erato Linnavuori, 1971e: 8, figs 1c, 3f–g (original description, key to *Atomophora* species).

Specimens in the collection of SMNS

One paratype ♀: "Atomophora / *maculosa* Rt. / *erato* (n. ssp.). LV. [hw] // Paratypus [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]"

One paratype ♀: "Atomophora / *maculosa* Rt. / ssp. *erato* LV. [hw] // Paratypus [p] [red label] // Atomophora / *bipunctata* ? / Reut. [hw] / Ed. Wagner det. [p] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]"

One paratype ♀: "Atomophora / *maculosa* Rt. / ssp. *erato* LV. [hw] // Zeichnung Photo [strikethrough on the label] [p] / 779/4.5.1970 [hw] / Fr. Heller [p] [pink label] // Paratypus [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]"

Current status. Junior synonym of *Atomophora maculosa* Reuter, 1903 (KONSTANTINOV 2000; AUKEMA et al. 2013; LINNAVUORI 2010 doubts the synonymy).

Atomophora nut Linnavuori, 1971

Atomophora nut Linnavuori, 1971e: 7–8, figs 1b, 3a (original description, key to *Atomophora* species).

Specimens in the collection of SMNS

One paratype ♀: "Atomophora / *nut* Lv (n. sp.) [hw] // Zeichnung Photo [strikethrough on the label] [p] / 778/4.5.1970 [hw] / Fr. Heller [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label] // Paratypus [p] [red label]"

One paratype ♀: "Atomophora / *nut* Lv [hw] // Paratypus [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label]"

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Atomophora pentheus Linnavuori, 1971

Atomophora pentheus Linnavuori, 1971e: 4–6, figs 1d, 2c (original description, key to *Atomophora* species).

Specimens in the collection of SMNS

One paratype ♀: “Atomophora / pentheus Lv [hw] // Zeichnung ~~Photo~~ [p] / 781/3.6.1970 [hw] / Fr. Heller [p] [pink label] // Paratypus [p] [red label] // Atomophora / pantherina / Reut. [hw] / E. Wagner det. [p] // IRAN Belutschistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label]”

One paratype ♀: “Atomophora / pentheus Lv [hw] // Paratypus [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele [p] [blue label]”. (Head, extremities and right tegmen of the specimen are absent.)

Two paratypes (♂ and ♀): “Atomophora / pentheus Lv [hw] // Paratypus [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 11.–21.IV.1954 / Richter u. Schäuuffele [p] [grey label]”.

One paratype ♂: “Atomophora / pentheus Lv [hw] // Paratypus [p] [red label] // Atomophora / vitticollis Reut. [hw] / det. E. Wagner 195[p]7[h]w // S. O. IRAN / (Djiruft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter leg. [p] [grey label]”

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Camptotylidea persica Wagner, 1957

Camptotylidea persica Wagner, 1957: 78, 92–94, figs. 56–67 (original description).

Specimens in the collection of SMNS

(Fig. 15a–b)

Holotype ♂: „TYPUS [p] / Camptotylidea / persica n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]”

Allotype ♀: “ALLOTYPOID [p] / Camptotylidea / persica n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]”

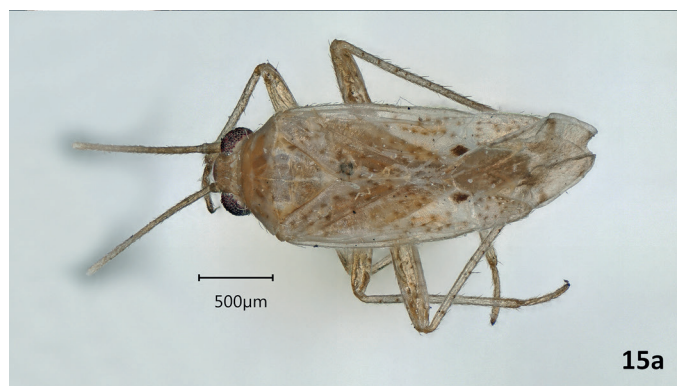
Paratype ♂: „PARATYPOID [p] / Camptotylidea / persica n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]”

Current status. Valid species (KERZHNER & JOSIFOV 1999).

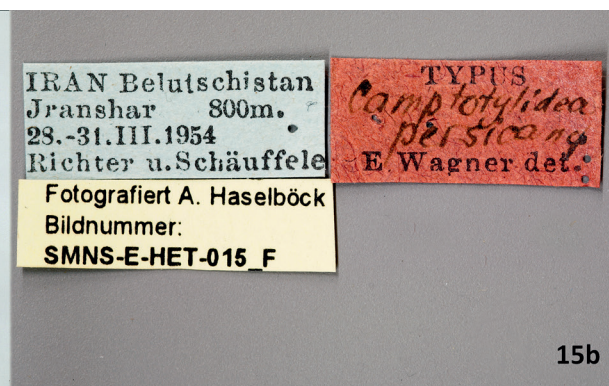
Remark. *Camptotylidea persica* is the type species of the genus that currently comprises about 30 species (KERZHNER & JOSIFOV 1999, AUKEMA et al. 2013).

Camptotylus gracilis Wagner, 1957

Camptotylus gracilis Wagner, 1957: 78, 90–92, figs. 49–56, 58, 61 (original description).



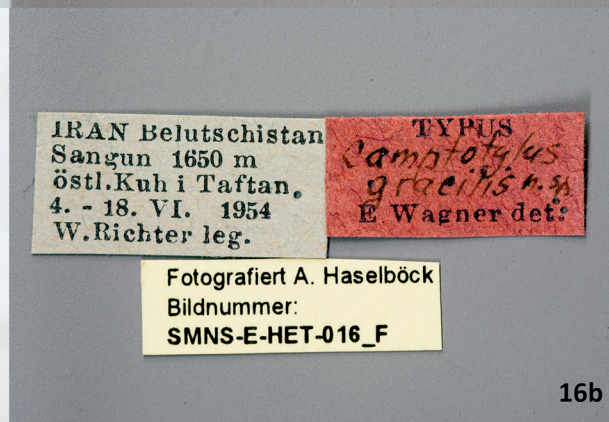
15a



15b



16a



16b

Figures 15–16. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 15a–b, *Camptotylidea persica*. 16a–b, *Camptotylus gracilis*.

Specimens in the collection of SMNS
(Fig. 16a–b)

Holotype ♂: „TYPUS [p] / Camptotylus / gracilis n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Sangun 1650 m / östl. Kuh i Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]“

Allotype ♀: „ALLOTYPOID [p] / Camptotylus / gracilis n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Sangun 1650 m / östl. Kuh i Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]“

Current status. Valid species (KERZHNER & JOSIFOV 1999; LINNAVUORI & MODARRES 1999; KONSTANTINOV 2008; AUKEMA 2013; GHAHARI & CHÉROT 2014).

Remark. A paratype specimen that is mentioned in the original description by WAGNER (1957) as being deposited at SMNS was not located in the collection.

Campylomma acaciae Linnavuori, 1961

Campylomma acaciae Linnavuori 1961: 22–23, figs. 9i–m, 10a–c (original description).

Specimen in the collection of SMNS

Paratype ♀: “Paratypoid [p], [red label with black submarginal border] // *Campylomma* / *acacicola* [sic!] LU [hw] // [red label without text] // Israel / Yotvata 28.6. [hw] 1958 [p] / R. Linnavuori leg. [p]”

Current status: valid species.

Remark. LINNAVUORI (1961) described two Phylinae species, *Campylomma acaciae* and *Compsilodon acacicola* (now junior synonym of *Yotvata picticornis* (Linnavuori 1961), s. LINNAVUORI 1964; KERZHNER & JOSIFOV 1999), collected at the same locality on the same date. The label on the specimen at the SMNS collection that spells “*Campylomma acacicola*” is thus quite misleading. A study of the specimen’s features indicated that it fits the original description of *Campylomma acaciae*, for example in its very small size, pale colour, second antennal segment being shorter than head width etc. - whereas it does not match the description of *Yotvata picticornis*.

Campylomma impicta Wagner, 1956

Campylomma impicta Wagner, 1956: 7–9, figs. 23–28 (original description).

Specimens in the collection of SMNS

One paratype ♂: „PARATYPOID [p] / *Campylomma* / *impicta* n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]“

Eight paratypes (three ♂♂, five ♀♀): “PARATYPOID [p] / *Campylomma* / *impicta* n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 11.–21.V.1954 / Richter u. Schäuuffele [p] [grey label]“

One paratype ♀: “PARATYPOID [p] / *Campylomma* / *impicta* n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 28.–31.III.1954 / Richter u. Schäuuffele [p] [blue label]“

Current status. Junior synonym of *Campylomma unicolor* Poppius, 1914 (LINNAVUORI 1986: 163; KERZHNER & JOSIFOV 1999).

Compsilodon alcmene Linnavuori, 1971

Compsilodon (Apsinthophylus) alcmene Linnavuori, 1971b: 1 (key to the *Compsilodon* subgenus *Apsinthophylus*).

Compsilodon (Apsinthophylus) alcmene Linnavuori, 1971c: 1–3, figs. 1–2 (original description, key to the *Compsilodon* subgenus *Apsinthophylus*).

Specimen in the collection of SMNS
(Fig. 17a–b)

Holotype ♂: „Zeichnung – Foto [the printed word is stroke through per hand] [p] / 794/16.II.1977 [hw] / Fr. Heller [p] [pink label] // *Compsilodon* / *alcmene* LV [hw] // nov. genum / propeutomophora [hw] / det. E. Wagner 195[p]7[hw] // Iran Khuzistan / Shadegan / 24.–29. II.1956 / Richter leg. [p] [grey label] // Holotypus [p] [red label]“ (The genitalia of the specimen are dissected and glued with the rest of the abdomen to the card where the specimen is pinned on a minute needle).

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Itupona dubia Wagner, 1957

Itupona dubia Wagner, 1957: 78, 96–97, figs. 78–87 (original description).

Specimens in the collection of SMNS
(Fig. 18a–b)

Holotype ♂: „TYPUS [p] / *Itupona* / *dubia* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.III.1954 / Richter u. Schäuuffele. [p] [grey label]” (The abdomen is missing).

Allotype ♀: „ALLOTYPOID [p] / *Itupona* / *dubia* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele. [p] [blue label]”

21 paratypes (four ♂, 17 ♀♀): „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele. [p] [grey label]”

11 paratypes (one ♂, 10 ♀♀): „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 1.–10.III.1954 / Richter u. Schäuuffele. [p] [grey label]”

Eight paratypes (three ♂♂, five ♀♀): „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele. [p] [blue label]”

Two paratypes (♀♀): „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele. [p] [blue label]”

One paratype ♀: „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / Jranshar 800 m. / 11.–21.IV.1954 / Richter u. Schäuuffele. [p] [blue label]”

One paratype ♂: „PARATYPOID / *Itupona* / *dubia* n. sp. / E. Wagner [p] [pink label] // IRAN Belutschistan / nrdwestl. Iranshar / Trockental [p] / 31.III. [hw] 1954 / Richter u. Schäuuffele. [p] [blue label]”

One paratype ♀: „PARATYPOID / Itupona / dubia n. sp. / E. Wagner [p] [pink label] // IRAN (CHORASSAN) / Birdjant / 23.VII.–2.VIII.1954 / Richter u. Schäuuffele. [p] [blue label]”

Current status. Valid species *Voruchiella dubia* (Wagner, 1957) (s. PUCHKOV 1976; LINNAVUORI 1986; CARAPEZZA 1997; KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013; GHAHARI & CHÉROT 2014).

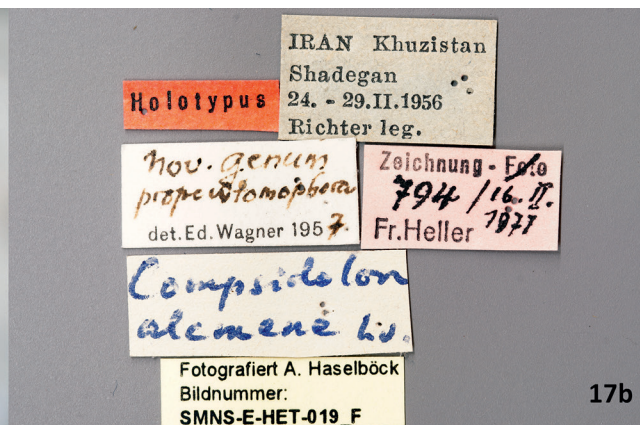
Malthacosoma halimocnemis var. *impunctatus* Wagner, 1958
Malthacosoma halimocnemis var. *impunctatus* Wagner, 1958a: 9 (original description).

Specimens in the collection of SMNS

Holotype ♂: “TYPUS [p] / M. halimocnemis / v. impunctatus / M.X. [hw] / E. Wagner det. [p] [red label] // S.O. Iran/



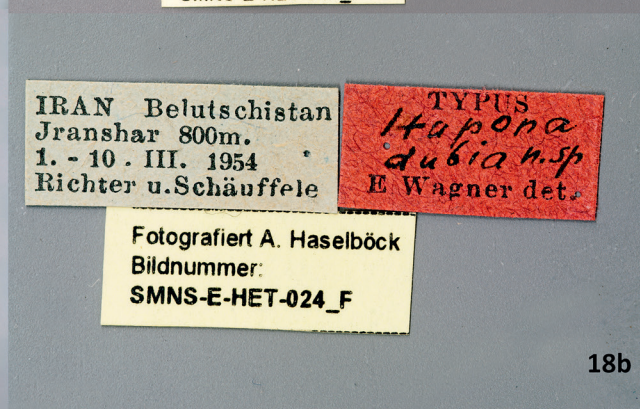
17a



17b



18a



18b



19a



19b

Figures 17–19. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. . – 17a–b, *Compsilodon alcmenae*. 18a–b, *Voruchiella dubia* (labeled as *Itupona dubia*). 19a–b, *Paralopus striatus*.

(Djirift) /Anbar-Abad /1.–18.V.1956 / W. Richter leg. [p] [grey label]”

Allotype ♀: “ALLOTYPOID [p] / M. halimocnemis / v. impunctata / n.sp. [hw]/ E. Wagner det. [p] [red label] // S.O. Iran/ (Djirift) /Anbar-Abad /1.–18.V.1956 / W. Richter leg. [p] [grey label]”

174 paratypes (120 ♂♂, 53 ♀♀, one specimen without abdomen) „PARATYPOID / Malthacosoma / halimocnemis / v. impunctata [p] [pink label] // S.O. Iran/ (Djirift) /Anbar-Abad / 1.– 18.V.1956 / W. Richter leg. [p] [grey label]”

Four paratypes (♂♂): “PARATYPOID / Malthacosoma / halimocnemis / v. impunctata [p] [pink label] // S.O. Iran/ [Djirift] /Anbar-Abad / 21.–30.IV.1956 / W. Richter leg. [p] [grey label]”

Current status. Junior synonym of *Solenoxypus punctipennis* (Reuter 1879) (s. CARAPEZZA 1997:164–166; KERZHNER & JOSIFOV 1999). KONSTANTINOV (2008b) in his review of the genus *Solenoxypus*, while upholding the synonymy, notes that the status of the variety needs further clarification. The name of the variety would be available according to the Article 45.6.4. of the ICZN (1999), since WAGNER (1958a) did not explicitly specified this taxon as intrasubspecific and described it prior to 1964.

Paralopus striatus Wagner, 1957

Paralopus striatus Wagner, 1957: 77, 89–90, figs. 40–48 (original description).

Specimens in the collection of SMNS
(Fig. 19a–b)

Holotype ♂: “TYPUS [p] / Paralopus / striatus n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.V.1954 / Richter u. Schäuuffele [p] [grey label]”

Allotype ♀: “ALLOTYPOID [p] / Paralopus / striatus / n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [blue label]”

Two paratypes (♂ and ♀): “PARATYPOID [p] / Paralopus / striatus / n. sp. [hw]/ E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 28.–31.III.1954 / Richter u. Schäuuffele [p, blue label]”

Three paratypes (one ♂ and two ♀♀): “PARATYPOID [p] / Paralopus / striatus / n. sp. [hw]/ E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]”. (The genitalia of the ♂ are dissected and glued to a card pinned to the same needle with the specimen.)

One paratype ♀: “PARATYPOID [p] / Paralopus / striatus / n. sp. [hw]/ E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 11.–21.IV.1954 / Richter u. Schäuuffele [p] [blue label] // ♀ [p]”

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Remark. *Paralopus striatus* is the type species of the genus that currently numbers 2 species (KERZHNER & JOSIFOV 1999).

Psallopsis rufifemur Wagner, 1958

Psallopsis rufifemur Wagner, 1958: 5–6, figs. 7–14 (original description).

Specimens in the collection of SMNS
(Fig. 20a–b)

Holotype ♂: “TYPUS [p] / Psallopsis/ rufifemur / n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p] [grey label]”

Allotype ♀: “ALLOTYPOID [p] / Psallopsis/ rufifemur / n. sp. [hw]/ E. Wagner det. [p] [red label] // RAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p] [grey label]”

Nine paratypes (♂♂): “PARATYPOID [p] / Psallopsis/ rufifemur / n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p] [grey label]”

One paratype ♂: “PARATYPOID [p] / Psallopsis/ rufifemur / n. sp. [hw]/ E. Wagner det. [p] //IRAN Khuzistan / 18 km. n. ö. Shadegan/ Jarrahi-Ufergebiet / 28.III.–6.IV.1956 / Richter u. Schäuuffele [p] [grey label]” (The genitalia are missing in this specimen.)

Current status: valid species (KONSTANTINOV 1997; KERZHNER & JOSIFOV 1999)

Remark. The original description by WAGNER (1958) provides for all specimens the same locality and date information: “Iran Khuzistan, Jarrahi-Ufergebiet, 28.III.–6.IV.1956 (18 km nordöstlich Shadegan) (RICHTER und SCHÄUFFELE leg.)”.

Psallopsis similis Wagner, 1958

Psallopsis similis Wagner, 1958: 6–7, figs. 15–22. (original description).

Specimens in the collection of SMNS
(Fig. 21a–b)

Holotype ♂: “TYPUS [p] / Psallopsis/ similis n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p] [grey label]”

Allotype ♀: “ALLOTYPOID [p] / Psallopsis/ similis n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p] [grey label]”

Seven paratypes (five ♂♂, two ♀♀): “PARATYPOID [p] / Psallopsis/ similis n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 1.–10.IV.1956 / Richter u. Schäuuffele [p]

Two paratypes (♂ and ♀): “PARATYPOID [p] / Psallopsis / similis n. sp. [hw]/ E. Wagner det. [p] [red label] // IRAN Khuzistan / Shadegan / 26.–31.III.1956 / Richter u. Schäuuffele [p] [grey label]”

Current status. Valid species (KONSTANTINOV 1997; LINNAVUORI & MODARRES 1999; KERZHNER & JOSIFOV 1999; AUKEMA 2013).

Remark. The original description by WAGNER (1958) provides for all specimens the same locality and date information: “Iran: Khuzistan: Shadegan, 26.III.–10.IV.1956, (RICHTER und SCHÄUFFELE leg.)”.

Roudairea atargatis Linnavuori, 1971

Roudairea atargatis Linnavuori, 1971d: 1–2, fig. 2. (original description).

Specimen in the collection of SMNS
(Fig. 22a–b)

Holotype ♀: “Zeichnung Photo [the printed word is stroke through per hand] [p]/ 798/28.4.1971[hw] / Fr. Heller [p] [pink label] // Roudairea / atargatis Lv. [hw] // Pleuroxonotus / nov. spec. [hw] / Ed. Wagner det. [p] // IRAN (MAKRAN) / am Kahuran bei / Putab 25.III.1954 / Richter [sic!] u. Schäuuffele [p] [grey label]// Holotypus [p] [red label]”

Current status. Valid species (KERZHNER & JOSIFOV 1999).

Sthenaropsis pallida Wagner, 1957

Sthenaropsis pallida Wagner, 1957: 78, 94–95, figs. 68–77 (original description)

Specimens in the collection of SMNS

Holotype: “TYPUS [p] / Sthenaropsis / pallida n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]” (The abdomen of the specimen is missing).



20a



20b



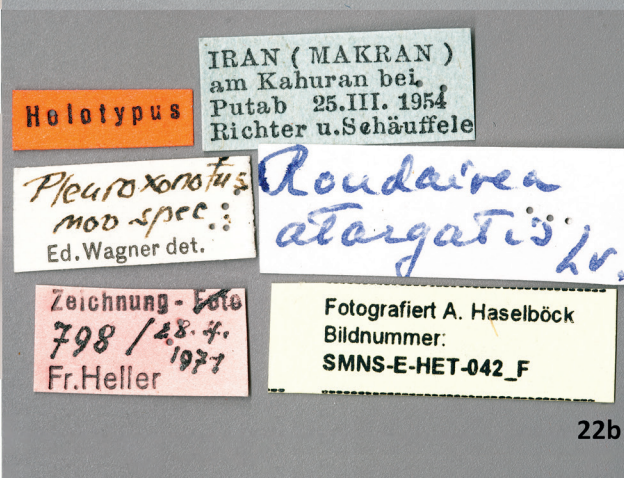
21a



21b



22a



22b

Figures 20–22. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 20a–b, *Psallopsis rufifemur*. 21a–b, *Psallopsis similis*. 22a–b, *Roudairea atargatis*.

Allotype ♀: “ALLOTYPoid [p] / *Sthenaropsis* / *pallida* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]”

Three paratypes (two ♂♂, one ♀): “PARATYPoid [p] / *Sthenaropsis* / *pallida* n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 1.–10.IV.1954 / Richter u. Schäuuffele [p] [grey label]” (Genitalia of one ♂ are dissected and glued to a card pinned to the same needle as the card with the specimen.)

Two paratypes (♀♀): “PARATYPoid [p] / *Sthenaropsis* / *pallida* n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Belutschistan / Jranshar 800 m / 28.–31.III.1954 / Richter u. Schäuuffele [p] [grey label]”

Current status. Junior synonym of *Campylomma nigrifemur* Wagner, 1975 (LINNAVUORI, 1986:164; KERZHNER & JOSIFOV, 1999).

Remark. The original description by WAGNER (1957) provides for all specimens the same locality and date information: “Iran: Beluchistan: Iranshar, 800 m., 1. März bis 10. April 1954.”

Tuponia albomarginata Linnavuori, 1961

Tuponia albomarginata Linnavuori, 1961: 26–28, figs. 13c–e, h, 14, 15a–b, d (original description).

Specimens in the collection of SMNS

Three paratypes (one ♂, two ♀♀): “Paratypoid [p] [red label with black submarginal border] // *Tuponia* / *albomarginata* / LV [hw] // [red label without text] // Israel [p] / Tiberias 21.7. [hw] 1958 [p] / R. Linnavuori leg. [p]”. (Every specimen is glued to its own card, but all are pinned to the same needle.)

Two paratypes (♂ and ♀): “Paratypoid [p] [red label with black submarginal border] // [red label without text] // Israel [p] / Deganya [hw] 1958 [p] / R. Linnavuori leg. [p]”. (Every specimen is glued to its own card, but all are pinned to the same needle.)

Current status. Junior synonym of *Tuponia* (*Chlorotuponia*) *hippophaes* (Fieber, 1861). (CARAPEZZA 1997: 186; KERZHNER & JOSIFOV 1999).

Tuponia angusta Wagner, 1957

Tuponia angusta Wagner, 1957: 99–100, figs. 93–100 (original description).

Specimens in the collection of SMNS (Fig. 23a–b)

Holotype ♂: “TYPUS [p] / *Tuponia* / *angusta* / n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Beluchistan / Sangun 1650 m. / östl. Kuh-i-Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]”

Allotype ♀: “ALLOTYPoid [p] / *Tuponia* / *angusta* / n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Beluchistan / Sangun 1650 m. / östl. Kuh-i-Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]”

Two paratypes (♂♂): „PARATYPoid [p] / *Tuponia* / *angusta* / n. sp. [hw] / E. Wagner det. [p] [pink label] // IRAN Beluchistan / Sangun 1650 m. / östl. Kuh-i-Taftan /

4.–18.VI.1954 / W. Richter leg. [p] [grey label]” . (The genitalia of one of the ♂ are dissected and glued to the same card as the specimen.)

Current status. Valid species *Tuponia* (*Chlorotuponia*) *angusta* Wagner, 1957 (KERZHNER & JOSIFOV 1999; GHAHARI & CHÉROT 2014)

Tuponia concinnoides Linnavuori, 1961

Tuponia concinnoides Linnavuori, 1961: 31, figs. 16f–h, 17a–b (original description).

Specimens in the collection of SMNS

Five paratypes (two ♂♂, three ♀♀): “Paratypoid [p] [red label with black submarginal border] // *Tuponia* / *concinnoides* / LV [hw] // [red label without text] // Israel [p] / Beer Mashash [hw] 1958 [p] / R. Linnavuori leg. [p]” (One specimen is glued to its own card, the other four with two specimens per card, but all are pinned to the same needle.)

Four paratypes (two ♀♀, the sex of other glued specimens is not recognizable): “Paratypoid [p] [red label with black submarginal border] // *Tuponia* / *concinnoides* / LV [hw] // [red label without text] // Israel [p] / Beer Mashash [hw] 1958 [p] / R. Linnavuori leg. [p]” (With two specimens glued per card, all cards pinned to the same needle.)

Current status. Valid species: *Tuponia* (*Chlorotuponia*) *concinnoides* Linnavuori 1961 (KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).

Remark. The original description by LINNAVUORI (1961) gives the collection date as 23.VI.1958.

Tuponia kermanensis Wagner, 1958

Tuponia kermanensis Wagner, 1958: 12–13, figs. 45–53 (original description).

Specimens in the collection of SMNS (Fig. 24a–b)

Holotype ♂: “TYPUS [p] / *Tuponia* / *kermanensis* / n. sp. [hw] / E. Wagner det. [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter [p] [grey label]” (Genitalia are dissected and glued to the same card as the specimen, most of the abdomen is missing).

Allotype ♀: “ALLOTYPoid [p] / *Tuponia* / *kermanensis* / n. sp. [hw] / E. Wagner det. [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter [p] [grey label]”

16 paratypes (12 ♂♂, four ♀♀): „PARATYPoid / *Tuponia* / *kermanensis* n. sp. / E. Wagner det. [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter [p] [grey label]” (Genitalia of several ♂♂ are dissected and glued to the same card as the respective specimen.)

Six paratypes (four ♂♂, two ♀♀): „PARATYPoid / *Tuponia* / *kermanensis* n. sp. / E. Wagner det. [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter [p] [grey label]”

Current status. Valid species *Anonymchiella kermanensis* (Wagner, 1958) (s. CARAPEZZA 1997: 127–129; KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013).



Figures 23–24. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 23a–b, *Tuponia angusta*. 24a–b, *Anonychiella kermanensis* (labeled as *Tuponia kermanensis*).

Tuponia minima Wagner, 1957

Tuponia minima Wagner, 1957: 101–103, figs. 110–120 (original description).

Specimens in the collection of SMNS
(Fig. 25a–b)

Holotype ♂: “TYPUS [p] / *Tuponia* / *minima* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jran-shar 800 m. / 11.–21.IV.1954 / Richter u. Schäufler. [p] [grey label]” (The abdomen and parts of wings and tegmina are missing).

Allotype ♀: “ALLOTYPIC [p] / *Tuponia* / *minima* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jran-shar 800 m. / 1.–10.IV.1954 / Richter u. Schäufler. [p] [grey label]”

Seven paratypes (three ♂♂, three ♀♀ and one specimen without abdomen): “PARATYPIC / *Tuponia* / *minima* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jran-shar 800 m. / 1.–10.IV.1954 / Richter u. Schäufler. [p] [grey label]” (Genitalia of one ♂ are dissected and glued to the same card as the specimen.)

Six paratypes (five ♂♂, one ♀): “PARATYPIC / *Tuponia* / *minima* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jran-shar 800 m. / 28.–31.III.1954 / Richter u. Schäufler. [p] [blue label]” (Genitalia of one ♂ are dissected and glued to the same card as the specimen.)

One paratype ♀: “PARATYPIC / *Tuponia* / *minima* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Sangun 1650 m / östlich Kuh-i-Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]”

Current status. Valid species *Tuponia* (*Chlorotuponia*) *minima* Wagner, 1957 (KERZHNER & JOSIFOV 1999; GHahari & ChÉROT 2014).

Tuponia minutissima Linnavuori, 1961

Tuponia minutissima Linnavuori, 1961: 34–35, figs. 18e, i–l (original description).

Specimens in the collection of SMNS

Two paratypes (one ♂, sex of the other glued specimen is not recognizable): “Paratypoid [p] [red label with black submarginal border] // *Tuponia* / *minutissima* / LV [hw] // [red label without text] // [unrecognizable handwriting] // Israel [p] / Yotvata 22.6. [hw] 1958 [p] / R. Linnavuori leg. [p]” (The genitalia of the ♂ are dissected and glued to another card which is pinned to the same needle as the specimen card.)

Current status. Valid species: *Tuponia* (*Chlorotuponia*) *minutissima* Linnavuori, 1961 (KERZHNER & JOSIFOV 1999).

Tuponia nupta Linnavuori, 1961

Tuponia nupta Linnavuori 1961: 26, figs. 12, 13a–b (original description).

Specimens in the collection of SMNS

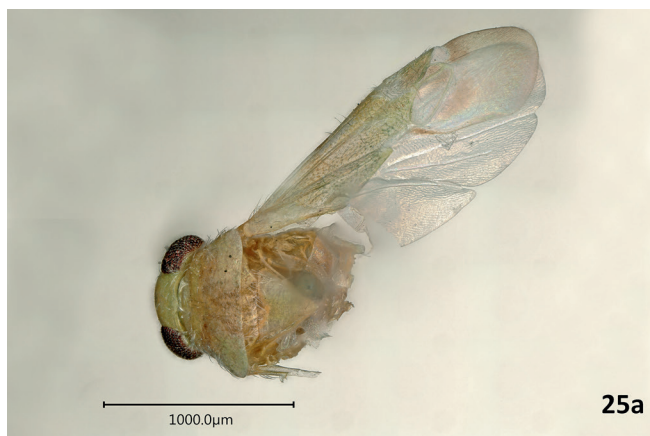
Three paratypes (one ♂ and two glued specimens whose sex is not recognizable): “Paratypoid [p] [red label with black sub-marginal border] // *Tuponia / nupta* / LV [hw] // [red label without text] // Israel [p] / Yotvata[hw] 1958 [p] / R. Linnavuori leg. [p]”

Current status. Valid species: *Eurycranella nupta* (Linnavuori, 1961) (s. KERZHNER & JOSIFOV 1999).

Remark. The original description by LINNAVUORI (1961) gives the collection date as 22.VI.1958.

Tuponia persica Wagner, 1957

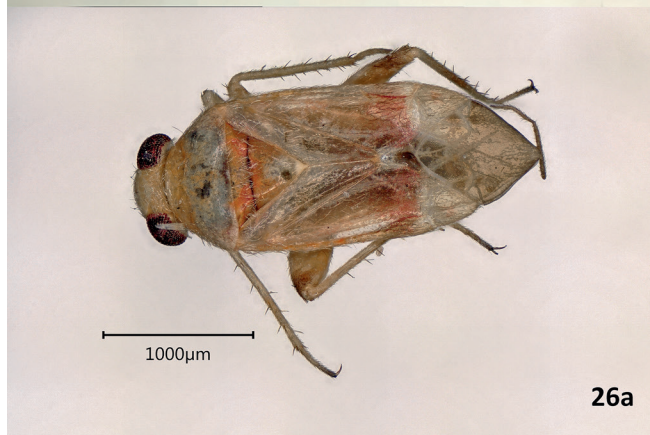
Tuponia persica Wagner, 1957: 97–99, figs. 88–92 (original description).



25a



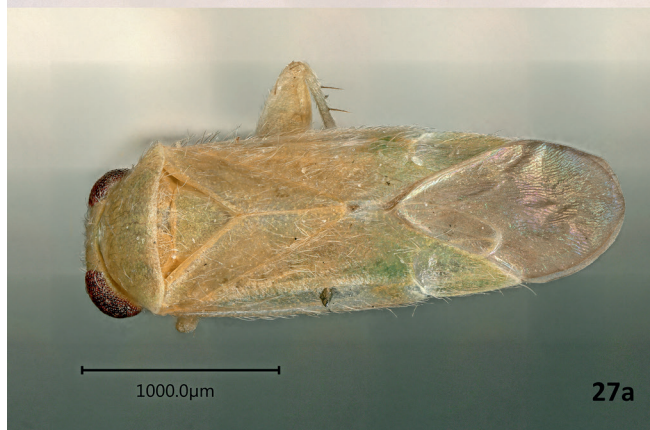
25b



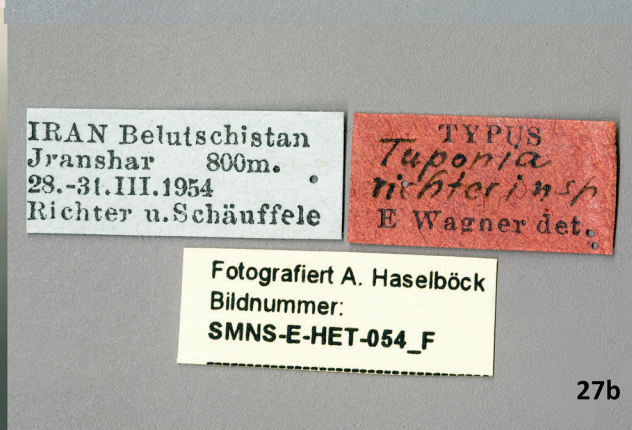
26a



26b



27a



27b

Figures 25–27. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 25a–b, *Tuponia minima*. 26a–b, *Tuponia persica*. 27a–b, *Aphaenophyes richteri* (labeled as *Tuponia richteri*).

Specimens in the collection of SMNS
(Fig. 26a–b)

Holotype ♂: „TYPUS [p] / *Tuponia / persica* / n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele. [p] [grey label]“

Allotype ♀: „ALLOTYPOID [p] / *Tuponia / persica* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jranshar 800 m. / 1.–10.III.1954 / Richter u. Schäuuffele. [p] [grey label]“

49 paratypes (20 ♂♂, 28 ♀♀, 1 specimen without abdomen): “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele. [p] [grey label]“ (Genitalia of one ♂ are dissected and glued to the same card as the specimen.)

Six paratypes (two ♂♂, four ♀♀): “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 11.–18.III.1954 / Richter u. Schäuuffele. [p] [grey label]“ (Genitalia of one ♂ are dissected and glued to the same card as the specimen.)

Two paratypes (♂ and ♀): “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 11.–21.IV.1954 / Richter u. Schäuuffele. [p] [grey label]“

Two paratypes (♂ and ♀): “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 1.–10.III.1954 / Richter u. Schäuuffele. [p] [grey label]“

One paratype ♀: “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 18.u.28.III.1954 / Richter u. Schäuuffele. [p] [grey label]“

One paratype ♂: “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele. [p] [grey label]“

One paratype ♂: “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 22.V.–2.VI.1954 / Richter u. Schäuuffele. [p] [grey label]“

One paratype ♀: “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / nrdwestl. Iran-shar / Trockental [p] / 31.III. [hw] 1954 / Richter u. Schäuuffele. [p] [grey label]“

One paratype ♂: “PARATYPOID / *Tuponia / persica* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Sangun 1650 m / östl. Kuh I Taftan / 4.–18.VI.1954 / W. Richter leg. [p] [grey label]“

Current status. Valid species *Tuponia (Tuponia) persica* Wagner, 1957 (CARAPEZZA 1997; KERZHNER & JOSIFOV 1999; GHAHARI & CHÉROT 2014)

Tuponia richteri Wagner, 1957

Tuponia richteri Wagner, 1957: 100–101, figs. 101–109 (original description).

Specimens in the collection of SMNS
(Fig. 27a–b)

Holotype ♂: „TYPUS [p] / *Tuponia / richteri* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele. [p] [blue label]“

Allotype ♀: „ALLOTYPOID [p] / *Tuponia / richteri* n. sp. [hw] / E. Wagner det. [p] [red label] // IRAN Beluchistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele. [p] [blue label]“

12 paratypes (seven ♂♂, four ♀♀ and one specimen without abdomen): “PARATYPOID [p] / *Tuponia / richteri* n. sp. [p] / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 1.–10.IV.1954 / Richter u. Schäuuffele. [p] [grey label]“

Six paratypes (five ♂♂, one ♀): “PARATYPOID / *Tuponia / richteri* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 28.–31.III.1954 / Richter u. Schäuuffele. [p] [blue label]“. (Genitalia of one ♂ are dissected and glued to a card pinned to the same needle with the specimen.)

One paratype ♂: “PARATYPOID / *Tuponia / richteri* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 22.–30.IV.1954 / Richter u. Schäuuffele. [p] [grey label]“. (Genitalia are dissected and glued to a card pinned to the same needle with the specimen.)

One paratype ♂: “PARATYPOID / *Tuponia / richteri* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Jranshar 800 m. / 11.–21.IV.1954 / Richter u. Schäuuffele. [p] [blue label]“.

One paratype ♂: “PARATYPOID / *Tuponia / richteri* n. sp. / E. Wagner [p] [pink label] // IRAN Beluchistan / Sangun 1650 m / östl. Kuh I Taftan / 4.–18.VI.1954 / W. Richter eg. [p] [grey label]“.

Current status. Valid species *Aphaenophyes richteri richteri* (Wagner, 1957) (s. WAGNER 1964a, b; LINNAUORI 1975, 1989; CARAPEZZA 1997; KERZHNER & JOSIFOV 1999; AUKEMA et al. 2013; GHAHARI & CHÉROT 2014).

Tuponia variegata Wagner, 1958

Tuponia variegata Wagner, 1958: 10–11, figs. 37–44 (original description).

Specimens in the collection of SMNS

Holotype ♂: “TYPUS [p] / *Tuponia / variegata* / n. sp. [hw] / E. Wagner det. [p] [red label] // S. O. Iran / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter [p] [grey label]“ (Genitalia are dissected and glued with one leg to the card where the specimen is pinned on a minute needle).

Allotype ♀: “ALLOTYPOID [p] / *Tuponia / variegata* / n. sp. [hw] / E. Wagner det. [p] [red label] // S. O. Iran / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter [p] [grey label]“

Two paratypes (♂♂): “PARATYPOID [p] / *Tuponia / variegata* / n. sp. [hw] / E. Wagner [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 21.–30.IV.1956 / W. Richter [p] [grey label]“

One paratype without abdomen: “PARATYPOID [p] / *Tuponia / variegata* / n. sp. [hw] / E. Wagner [p] [pink label] // S. O. Iran / (Djiroft) / Anbar-Abad / 1.–18.V.1956 / W. Richter [p] [grey label] // ♂ [p]“

Current status. Junior synonym of *Tuponia (Chlorotuponia) guttata* Wagner, 1950 (LINNAUORI 1986:186; KERZHNER & JOSIFOV 1999).

Family Cydnidae Billberg, 1820
Subfamily Cydninae Billberg, 1820
Tribe Cydnini Billberg, 1820

Chilocoris martensi Lis, 1994

Chilocoris (Chilocoris) martensi Lis, 1994: 64–65, 67–68, figs. 108–110 (original description, key to the subgenus *Chilocoris*).

Specimens in the collection of SMNS
(Fig. 28a–b)

Holotype ♂: “HOLOTYPE / det. J. A. LIS [p, red label] // *Chilocoris* s. str. / *martensi* LIS / det. J. A. LIS [p, red label] // 361 Taplejung Distr., Upper Sim- / bua Khola Valley, near Tseram, / 3250–3350 m, mature Abies-Rho-/dodendron forest, 10–15. May 88 / J. MARTENS & W. SCHAWALLER leg. [p] // Nepal-Expeditionen / Jochen Martens [p]”

Paratype ♀: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *martensi* LIS / det. J. A. LIS [p, red label] //

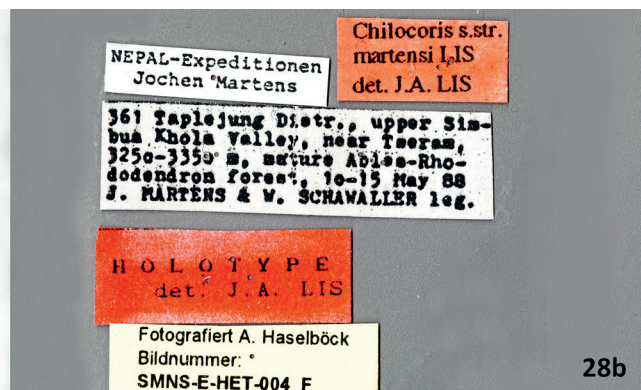
361 Taplejung Distr., Upper Sim- / bua Khola Valley, near Tseram, / 3250–3350 m, mature Abies-Rho-/dodendron forest, 10–15. May 88 / J. MARTENS & W. SCHAWALLER leg. [p] // Nepal-Expeditionen / Jochen Martens [p]”

Current status. Valid species (LIS 1999).

Remark. The original description states that holotype and two paratypes at that time were deposited in collection of JOCHEN MARTENS at University of Mainz, Germany.



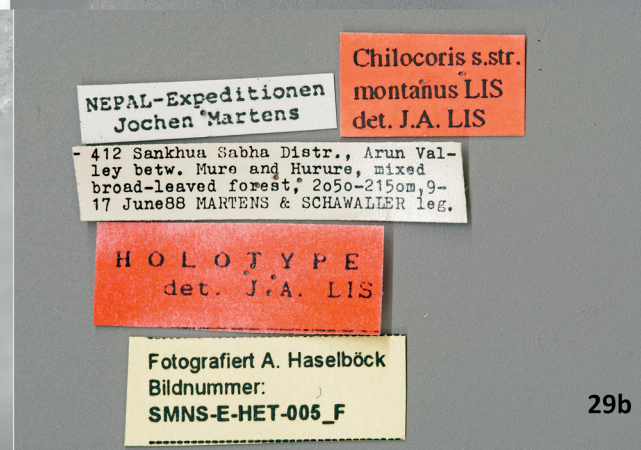
28a



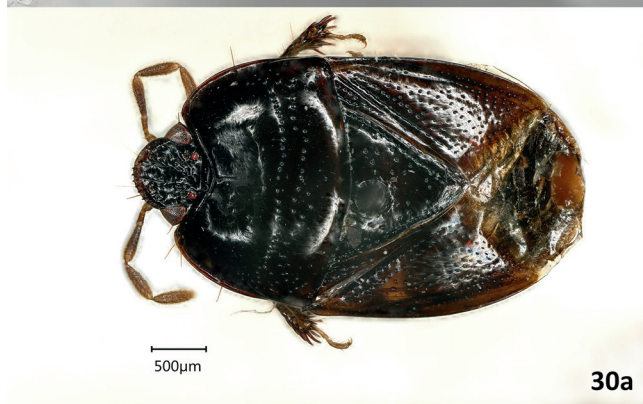
28b



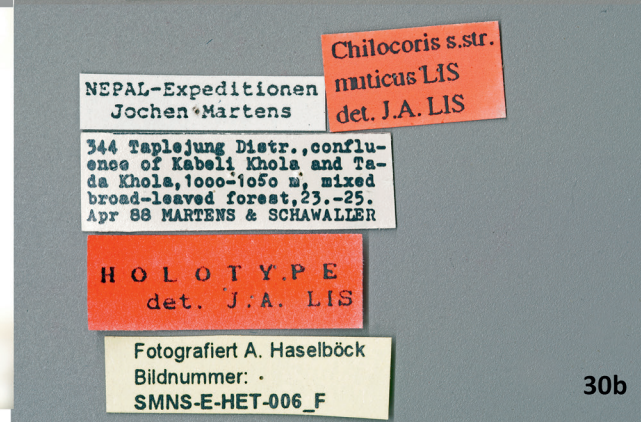
29a



29b



30a



30b

Figures 28–30. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 28a–b, *Chilocoris martensi*. 29a–b, *Chilocoris montanus*. 30a–b, *Chilocoris muticus*.

Chilocoris montanus Lis, 1994

Chilocoris (Chilocoris) montanus Lis, 1994: 64–65, 69–70, figs. 111–112 (original description, key to the subgenus *Chilocoris*).

Specimen in the collection of SMNS
(Fig. 29a–b)

Holotype ♂: “HOLOTYPE / det. J. A. LIS [p, red label] // *Chilocoris* s. str. / *montanus* LIS / det. J. A. LIS [p, red label] // 412 Sankhua Sabha Distr., Arun Val- / ley betw. Mure and Hurure, mixed / broad-leaved forest, 2050–2150 m. 9–17 June 88 MARTENS & SCHAWALLER leg. [p] // NEPAL-Expeditionen / Jochen Martens [p]” (Genitalia dissected and glued to the same card as the specimen.)

Current status. Valid species (LIS 1999).

Remark. The original description states that the holotype was at that time deposited in collection of JOCHEN MARTENS at University of Mainz, Germany.

Chilocoris muticus Lis, 1994

Chilocoris (Chilocoris) muticus Lis, 1994: 64–65, 70–71, figs. 114–116 (original description, key to the subgenus *Chilocoris*).

Specimen in the collection of SMNS
(Fig. 30a–b)

Holotype ♂: “HOLOTYPE / det. J. A. LIS [p, red label] // *Chilocoris* s. str. / *muticus* LIS / det. J. A. LIS [p, red label] // 344 Taplejung Distr., conflu- / ence of Kabeli Khola and Ta- / da Khola, 1000–1050 m, mixed / broad-leaved forest, 23.–25. / Apr. 88 MARTENS & SCHAWALLER [p] // NEPAL-Expeditionen / Jochen Martens [p]” (Genitalia dissected and glued to the same card as the specimen.)

Current status. Valid species (LIS, 1999).

Remark. The original description states that the holotype was at that time deposited in the collection of JOCHEN MARTENS at University of Mainz, Germany.

Chilocoris nepalensis Lis, 1994

Chilocoris (Chilocoris) nepalensis Lis, 1994: 64–65, 71–72, figs. 117–119 (original description, key to the subgenus *Chilocoris*).

Specimens in the collection of SMNS

One paratype ♀: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *nepalensis* LIS / det. J. A. LIS [p, red label] // 275 Taplejung Distr., Grat / Lasse Dhara und Alm Lasse- / tham 3000–3300 m Abies/Rhodo. / 6/7Sep83 MARTENS & DAAMS L. [p] // NEPAL-Expeditionen / Jochen Martens [p]”

One paratype ♀: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *nepalensis* LIS / det. J. A. LIS [p, red label] // 157 Mustang Dist. Thaksang / 3150–3400 m, Pinus excelsa / Abies, Lichtung, MARTENS & AUSOBSKY 26/29 April 1980 [p] // NEPAL-Expeditionen / Jochen Martens [p]”

One paratype ♀: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *nepalensis* LIS / det. J. A. LIS [p, red label] // 356 Taplejung Distr., Omje Khar- / ka NW Yamputhin, mature mixed / broad-leaved forest, 2300–2500 m / 1–6 May 88 MARTENS & SCHAWALLER [p] // NEPAL-Expeditionen / Jochen Martens [p]”

One paratype ♀: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *nepalensis* LIS / det. J. A. LIS [p, red label] // 404 Sankhua Sabha Distr., above / Pahakhola, 2600–2800 m, Quercus / semecarpifolia Rhododendron, 31 May / to 3 June 88 MARTENS & SCHAWALLER [p] // NEPAL-Expeditionen / Jochen Martens [p]”

One paratype ♂: “PARATYPE / DET. J. A. LIS [p, red label] // *Chilocoris* s. str. / *nepalensis* LIS / det. J. A. LIS [p, red label] // Thakkhola, Tukche / Thaksang / 3100–3300 m [p] // NEPAL-Expeditionen / Jochen Martens [p]” (In the original description the collection dates are provided for this and one more specimen: 27.02–11.03.1974.)

Current status. Valid species (LIS 1999).

Remark. The original description states that the specimens were at that time deposited in the collection of JOCHEN MARTENS at University of Mainz, Germany.

Chilocoris pseudopiceus Lis, 1994

Chilocoris (Statanus) pseudopiceus Lis, 1994: 77–78, 89, figs. 148–149 (original description, key to the subgenus *Statanus*).

Specimens in the collection of SMNS
(Fig. 31a–b)

Holotype ♂: “HOLOTYPE / det. J. A. Lis [p, red label] // *Chilocoris* / (*Statanus*) / *pseudopiceus* LIS / det. J. A. LIS [p, red label] // 334 Taplejung Distr., Worebung / Pass, degradet [sic!] broad-leaved fo- / rest, 2000 m, 21 Apr 1988, J. / MARTENS & W. SCHAWALLER leg. [p] // NEPAL-Expeditionen / Jochen Martens [p]” (Left tegmen and left wing of the holotype are absent, left side of the abdomen somewhat damaged.)

One paratype ♀: “PARATYPE / det. J. A. Lis [p, red label] // *Chilocoris* / (*Statanus*) / *pseudopiceus* LIS / det. J. A. LIS [p, red label] // 334 Taplejung Distr., Worebung / Pass, degradet [sic!] broad-leaved fo- / rest, 2000 m, 21 Apr 1988, J. / MARTENS & W. SCHAWALLER leg. [p] // NEPAL-Expeditionen / Jochen Martens [p]”

One paratype ♀: “PARATYPE / det. J. A. Lis [p, red label] // *Chilocoris* / (*Statanus*) / *pseudopiceus* LIS / det. J. A. LIS [p, red label] // 412 Sankhua Sabha distr., Arun val- / ley betw. Mure and Hurure, mixed / broad-leaved forest, 2050–2150 m, 9– / 17 June 88 MARTENS & SCHAWALLER leg. [p] // NEPAL-Expeditionen / Jochen Martens [p]”

Current status. Valid species (LIS 1999).

Remark. The original description states that the holotype and paratypes were at that time deposited in the collection of JOCHEN MARTENS at University of Mainz, Germany.

Parachilocoris mariani Lis, 1994

Parachilocoris mariani Lis, 1994: 107, 110–111, fig. 193 (original description, key to the genus *Parachilocoris*).

Specimen in the collection of SMNS

Paratype ♀: "PARATYPE / det. J. A. Lis [p, red label] // Parachilocoris / mariani Lis / det. J. A. Lis [p, red label] // 352 Taplejung Distr., above Yam- / puthin, left bank of Kabeli / Khola, bushes, open forest, 1800– / 2000 m, 27–29 Apr. 1988, J. MAR- / TENS & W. SCHAWALLER leg. [p] // NEPAL-Expeditionen / Jochen Martens [p]"

Current status. Valid species (Lis 1999).

Remark. The original description states that the paratype was at that time deposited in JOCHEN MARTENS' collection at Mainz University, Germany.

Tribe Geotomini Wagner, 1963

Aethus pseudindicus Lis, 1993

Aethus pseudindicus Lis, 1993: 108, figs. 3–4, 7 (original description).

Specimen in the collection of SMNS

Three paratypes (♀♀): „PARATYPE / det. J. A. Lis [p, red label] // *Aethus / pseudindicus* LIS / det. J. A. LIS [p, red label] // Tonkin / Sauter 1901 / [p, label with blue margin]"

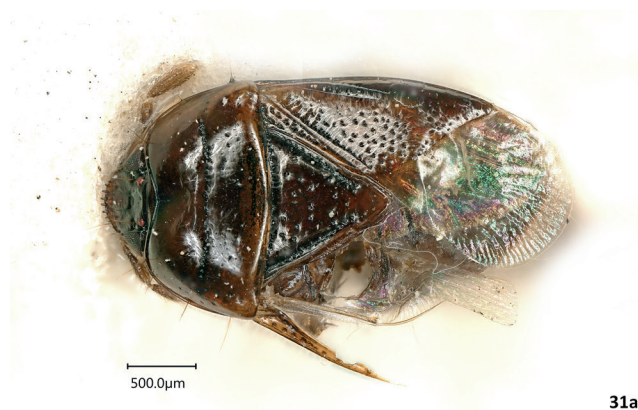
Current status. Valid species (Lis 1999).

Coleocydnus madagascariensis Lis, 1996

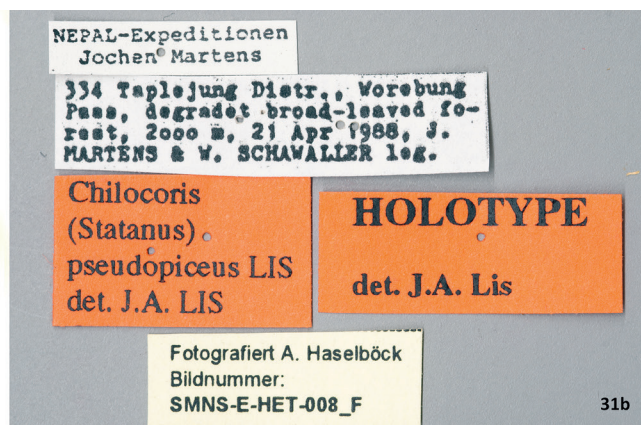
Coleocydnus madagascariensis Lis, 1996: 347–350, figs. 1–4. (original description, key to *Coleocydnus* species).

Specimens in the collection of SMNS
(Figs. 32a–b)

Holotype ♀: „HOLOTYPE / det. J. A. Lis [p, red label] // *Coleocydnus / madagascariensis* Lis / det. J. A. Lis [p, red label] // MADAGASKAR / Foret de Kirindy / März 1990 / leg. M. BUTTERWECK et al. [p]"



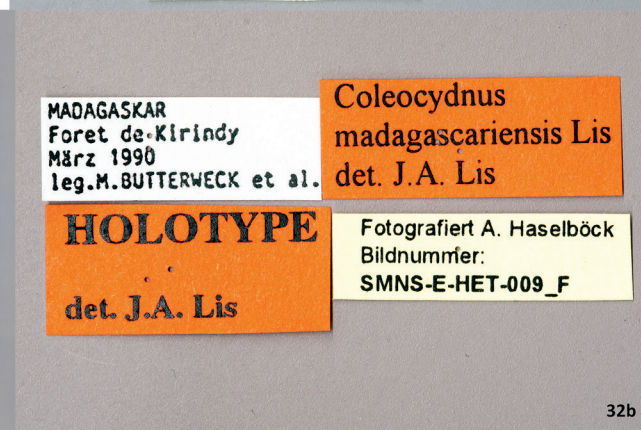
31a



31b



32a



32b

Figures 31–32. Habitus of holotype specimens of Heteroptera from the SMNS collection and their labels. – 31a–b, *Chilocoris pseudopiceus*. 32a–b, *Coleocydnus madagascariensis*.

Two paratype ♀♀: „PARATYPE / det. J. A. Lis [p, red label] // *Coleocydnus / madagascariensis* Lis / det. J. A. Lis [p, red label] // MADAGASKAR / Forêt de Kirindy / März 1990 / leg. M. BUTTERWECK et al. [p]“ (Both specimens lack the abdomen.)

Current status. Valid species (LIS 1999).

Family Pentatomidae Leach, 1815
Subfamily PENTATOMINAE Leach, 1815
Tribe Carpocorini Mulsant & Rey, 1866

Carpocoris absinthii orientalis Hoberlandt, 1956
Carpocoris (Antheminia) absinthii orientalis Hoberlandt, 1956: 193–195, figs. 46–53 (original description).

Specimen in the collection of SMNS

Paratype ♀: “Paratypus [p] / *Carpocoris / absinthii / orientalis* n. ssp. ♀ [hw] / Det. L. Hoberlandt, 19[p]54[hw][pink label] // Mogan aölü / Anat. 5.VII.47 / Exp. N. Mus. CSR. [p]”

Current status. Junior synonym of *Antheminia pusio pusio* (Kolenati, 1856). (S. TAMANINI 1962; RIDER 2006).

Family SCUTELLERIDAE Leach, 1815
Subfamily Odonototarsinae Mulsant & Rey, 1865
Tribe Odonototarsini Mulsant & Rey, 1865

Odonototarsus karatasensis Hoberlandt, 1956
Odonototarsus karatasensis Hoberlandt 1956: 165–168, figs. 35–42. (original description).

Specimen in the collection of SMNS

Paratype ♀: “Paratypus [p] ♀ / *Odonototarsus / karatasensis* / n. sp. ♀ [hw] / Det. L. Hoberlandt, 19[p]54[hw][pink label] // Karatas / Anat. 2–5.8.47 / Exp. N. Mus. CSR. [all p]”

Current status. Junior synonym of *Odonototarsus rufescens* Fieber, 1861 (GÖLLNER-SCHIEDING 1990; RIDER 2006).

4 Discussion

Cataloguing of the Heteroptera collection revealed type material of 52 valid species (three of them belonging to the type species of a genus) and three valid subspecies. Miridae (mostly described by WAGNER) and Cydnidae (described by LIS) represent the majority, although types from seven additional families are present. Type material of eight nominal taxa that are currently junior synonyms of other species and four nominal taxa that are junior synonyms of other subspecies was also discovered. Thus, the number of Heteroptera types present in the collection is about twice the one estimated before on the website of Stuttgart State Museum of Natural History. Furthermore, the collection harbours a significant amount of unidenti-

fied material that includes potential new species, among them several new Colobathristidae (HARTUNG 2019) and undescribed Enicocephalidae (PETR BAÑAR, pers. comm.). These facts establish the Heteroptera collection of SMNS as an important reference institution for hemipterists.

Concerning two taxa whose specimens are labeled as types in the collection, a closer study revealed that they do not contain type material:

Family Saldidae Amyot & Serville, 1843
Subfamily Saldinae Amyot & Serville, 1843
Tribe Saldoidini Reuter, 1912

♂ and ♀: “[red label without text] // Paratype [hw, underlined] / *Saldula / asiatica* / R. H. Cobben MS’81 [hw, grey label] // NEPAL-Expeditionen / Jochen Martens [p] // Ting Sang La / über Barabise / 3400 m / 13.–15.IV.1973 [p]”

Status. COBBEN (1985) lists both specimens as belonging to *Saldula burmanica* Lindsog, 1975 (which is currently a valid species, s. LINDSKOG 1995) and provides the explanation for the SMNS specimens being labeled as types. Nepal specimens were viewed and labeled by COBBEN as belonging to a new species, whose description he prepared for the 1985 paper, until he was able to study the type material of *S. burmanica* provided by LINDSKOG and arrived to the same conclusion as the latter: that the Nepal specimens are a new subspecies of *S. burmanica* at most (COBBEN, 1985). He left it to LINDSKOG’s consideration whether to establish a new subspecies or not (COBBEN 1985); LINDSKOG (1995) decided not to.

Family Miridae Hahn, 1833
Subfamily Orthotylinae Van Duzee, 1916 (1865)
Tribe Orthotylini Van Duzee, 1916 (1865)

♀: “Paratypoid [p] [red label with black submarginal border] // *Brachynotocoris / oleae* Lv. [hw] // [red label without text] // Israel [p] W[adi]. Keren / nr. Goren 6.8.[hw] 1958 / R. Linnavuori leg. [p]”

Status. The specimen, although labeled as a paratype (obviously by the collector, RAUNO LINNAVUORI), does not belong to the type series of any described species. Four specimens collected by LINNAVUORI in Israel have the same collection date and location as the specimen in question (“Wadi Keren near Goren, 4 spec., 6.VIII.1958, ! – On *Olea europaea*” – LINNAVUORI 1961:9) and are assigned by the author to *Brachynotocoris cyprius* Wagner, 1960; however, they do not belong to the type series of *B. cyprius* that was available to WAGNER (1960). A study of characters of the SMNS specimen also clearly demonstrates that it belongs to *B. cyprius cyprius* Wagner, 1960. It is likely that LINNAVUORI, upon collecting the specimen in Israel (1961), initially considered it belonging to a new species-group taxon and labeled it accordingly, revised his opinion later, but the label in the SMNS collection was not changed.

HERRICH-SCHÄFFER (1839) described from the vicinity of Stuttgart the species *Capsus roseri* – now *Salicarus roseri*

(HERRICH-SCHAEFFER 1839), moved to the new genus by KERZHNER (1962). The Palearctic catalogue (KERZHNER & JOSIFOV 1999) suggests that the type material might be stored at SMNS, but explicitly states that it was not located here, as does AUKEMA (1999). Parts of HERRICH-SCHAEFFER'S collection are stored at the Natural History Museum in Berlin and the State Zoological Collection in Munich, but examination of databases at both institutions did not help in locating the type material of *S. roseri*; its whereabouts remaining undiscovered.

5 References

- AGLYAMZYANOV, R. S. (2006): On the taxonomic status of *Lygus israelensis* Linnavuori, 1962 (Heteroptera: Miridae). – *Zoosystematica rossica* **14** (2): 211–212.
- ANDERSEN, N. M. (1995): Infraorder Gerromorpha Popov, 1971 – semiaquatic bugs. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic Region. Vol. 1. Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha and Leptopodomorpha, pp. 77–114; Amsterdam (The Netherlands Entomological Society).
- ANDERSEN, N. M., & WEIR, T. A. (2003): The genus *Microvelia* Westwood in Australia (Hemiptera: Heteroptera: Velidae). – *Invertebrate Systematics* **17**(2): 261–348.
- AUKEMA, B. (1999): On type specimens of some Palearctic Miridae; Renkum (Aukema), 32 pp.
- AUKEMA, B., RIEGER, C. & RABITSCH, W. (2013): Catalogue of the Heteroptera of the Palearctic region. VI. Supplement; Amsterdam (The Netherlands Entomological Society), xxiii + 629 pp.
- CARAPEZZA, A. (1997): Heteroptera of Tunisia. – *Il Naturalista siciliano* **21** (suppl. A): 1–312.
- CHEN, P. P., NIESER, N. & ZETTEL, H. (2005): Aquatic and semi-aquatic bugs (Heteroptera: Nepomorpha & Gerromorpha) of Malesia. – *Fauna malesiana Handbook* 5; Leiden (Brill), 546 pp.
- CHÉROT, F., & MALIPATIL, M. B. (2016): A review of *Adelphocoris-Creontiades-Megacoelum* complex (Hemiptera: Heteroptera: Miridae: Mirini), with descriptions of two new genera and four new species. – *Zootaxa* **4126**(2): 151–206.
- COBBEN, R. H. (1985): Additions to the Eurasian saldid fauna, with a description of fourteen new species (Heteroptera, Saldidae). – *Tijdschrift voor Entomologie* **128**: 215–270.
- FENT, M., KMENT, P., CAMUR-ELIPEK, B., & KIRGIZ, T. (2011): Annotated catalogue of Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha, and Leptopodomorpha (Hemiptera: Heteroptera) of Turkey, with new records. – *Zootaxa* **2856** (1): 1–84.
- GHAHARI, H., & CHÉROT, F. (2014): An annotated catalog of the Iranian Miridae (Hemiptera: Heteroptera: Cimicomorpha). – *Zootaxa* **3845** (1): 1–101.
- GÖLLNER-SCHIEDING, U. (1990): Revision der Gattung *Odontotarsus* Laporte de Castelnau, 1832 (Heteroptera, Scutelleridae). – *Mitteilungen aus dem zoologischen Museum in Berlin* **66**: 333–370.
- GRIMM, D. & RIEGER, C. (1998): Zwei neue *Trigonotylus*-Arten aus Griechenland (Heteroptera: Miridae). – *Entomologische Berichten* **58** (1): 139–142.
- HARTUNG, V. (2019). New Oriental and Australasian taxa of Colobathristidae (Hemiptera: Heteroptera) in the collection of the State Natural History Museum Stuttgart. – *Acta entomologica Musei nationalis Pragae* **59** (2): 403–422.
- HEISS, E. (1984): Heteropteren aus Kreta II. (Insecta: Heteroptera). – *Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck* **71**: 141–155.
- HENRY, T. J. (2017): Biodiversity of Heteroptera. – In: FOOTITT, R. G. & ADLER, P. H. (eds.): *Insect biodiversity: science and society*, Vol. I, second edition, pp. 279–335; Oxford (John Wiley & Sons).
- HERRICH-SCHAEFFER, G. A. W. (1839): Die wanzenartigen Insecten. Getreu nach der natur abgebildet und beschrieben. Band 4. Nürnberg (C H. Zeh).
- HOBERLANDT, L. (1952): Results of the zoological scientific expedition of the National Museum in Praha to Turkey. 2. Hemiptera-Heteroptera. I. The aquatic and semiaquatic Heteroptera of Turkey. – *Acta entomologica Musei nationalis Pragae* **26** (352) (1948): 1–74 + 9 unpaginated plates.
- HOBERLANDT, L. (1956): Results of the zoological scientific expedition of the National Museum in Praha to Turkey. 18. Hemiptera IV. Terrestrial Hemiptera-Heteroptera of Turkey. – *Acta entomologica Musei nationalis Pragae*, suppl. 3 (1955): 1–264.
- International Commission on Zoological Nomenclature (ICZN). (1999): International code of zoological nomenclature, fourth edition; London (International Trust for Zoological Nomenclature), 306 pp.
- JANSSON, A. (1995): Family Corixidae Leach, 1815 – water boatmen. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic region. Vol. 1. Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha and Leptopodomorpha, pp. 26–56; Amsterdam (The Netherlands Entomological Society).
- KERZHNER, I. M. (1962): Materialy po sistematike slepnyakov (Heteroptera, Miridae) fauny SSSR. (Materials on the taxonomy of capsid bugs (Heteroptera, Miridae) of the fauna of the USSR.) – *Entomologicheskoe Obozrenie* **41** (2): 372–387. (In Russian).
- KERZHNER, I. M. (1996): Family Nabidae A. Costa, 1853 – damsel bugs. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic region. Vol. 2. Cimicomorpha I, pp. 84–107; Amsterdam (The Netherlands Entomological Society).
- KERZHNER, I. M. & JOSIFOV, M. (1999): Miridae Hahn, 1833. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic region. Vol. 3. Cimicomorpha II. Miridae, pp. 1–446; Amsterdam (The Netherlands Entomological Society).
- KERZHNER, I. M. & STROMMER, N. G. (1990): Oriental and Australian species of the genus *Prostemma* Laporte (Heteroptera. Nabidae). – *Records of the south australian Museum* **24** (1): 27–34.
- KMENT, P., & KOLINOVA, Z. (2013): Catalogue of type specimens of true bugs (Hemiptera: Heteroptera) deposited in the National Museum, Prague, Czech Republic. Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha, and Leptopodomorpha. – *Acta entomologica Musei nationalis Pragae* **53** (2): 821–890.
- KONSTANTINOV, F. V. (2000): Klopys-slepnyaki roda *Atomophora* Reut. (Heteroptera, Miridae) fauny Rossii i sopredel'nykh stran. (Capsid bugs of the genus *Atomophora* Reut. (Heteroptera, Miridae) in the fauna of Russia and adjacent countries). – *Entomologicheskoe Obozrenie* **79** (1): 35–44. (In Russian)

- KONSTANTINOV, F. V. (2008a): Review of the genus *Camptotylus* Fieber, 1860 (Heteroptera: Miridae) with description of two new species. – *American Museum Novitates* **3606**: 1–23.
- KONSTANTINOV, F. V. (2008b): Review of *Solenoxypus* Reuter, 1875 (Heteroptera: Miridae: Phyllinae). – *American Museum Novitates* **3607**: 1–42.
- LI, C. R., & ZHENG, L. Y. (2006): Notes on the lacebug genus *Ildefonsus* Distant, with description of a new species (Hemiptera, Tingidae) from China. – *Acta zootaxonomica sinica* **31** (3): 580–584.
- LINDSKOG, P. (1995): Infraorder Leptopodomorpha Popov, 1971. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic Region. Vol. 1. Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha and Leptopodomorpha, pp. 115–141; Amsterdam (The Netherlands Entomological Society).
- LINNAVUORI, R. (1960): Hemiptera of Israel I. – *Annales zoologici Societatis zoologicae botanicae fennicae “Vanamo”* **22** (1): 1–71.
- LINNAVUORI, R. (1961): Hemiptera of Israel II. – *Annales zoologici Societatis zoologicae botanicae fennicae “Vanamo”* **22** (7): 1–51.
- LINNAVUORI, R. (1962): Hemiptera of Israel III. – *Annales zoologici Societatis zoologicae botanicae fennicae “Vanamo”* **24** (3): 1–108.
- LINNAVUORI, R. (1964): Hemiptera of Egypt, with remarks on some species of the adjacent eremian region. – *Annales zoologici fennici* **1** (4): 306–356.
- LINNAVUORI, R. (1971a): On the family Miridae (Het.). – *Annales entomologici fennici* **37**: 126–135.
- LINNAVUORI, R. (1971b): On some new or little known Miridae species. – *Miscelánea Zoológica* **3** (1): 27–33.
- LINNAVUORI, R. (1971c): A new species of the genus *Compsidolon* Rt. from Iran (Het. Miridae). – *Stuttgarter Beiträge zur Naturkunde* **227**: 1–4.
- LINNAVUORI, R. (1971d): A new species of the genus *Roudairea* Rt. from Iran (Het. Miridae). – *Stuttgarter Beiträge zur Naturkunde* **228**: 1–3.
- LINNAVUORI, R. (1971e): On the genus *Atomophora* Rt. (Het. Miridae). – *Stuttgarter Beiträge zur Naturkunde* **229**: 1–9.
- LINNAVUORI, R. (1972): Additional studies on the genus *Phytocoris* Fallén (Heteroptera: Miridae). – *Acta entomologica bohemoslovaca* **69**: 160–174.
- LINNAVUORI, R. (1975): Hemiptera of the Sudan, with remarks on some species of the adjacent countries. 4. Miridae and Isometopidae. – *Annales zoologici fennici* **12**: 1–118.
- LINNAVUORI, R. (1986): Heteroptera of Saudi Arabia. – *Fauna of Saudi Arabia* **8**: 31–197.
- LINNAVUORI, R. (1989): Heteroptera of Yemen and South Yemen. – *Acta entomologica fennica* **54**: 1–40.
- LINNAVUORI, R. (1990): Revision of the *Atomophora* complex (Heteroptera, Miridae) of the Eremian subregion. – *Entomologica Fennica* **1**: 45–64.
- LINNAVUORI, R. (2000): On the genus *Phytocoris* Fallén (Heteroptera: Miridae, Mirinae) in Iran with remarks on species of the adjacent countries. Part II. – *Acta Universitatis carolinae biologica* **44** (2): 73–110.
- LINNAVUORI, R. (2010): Studies on the Miridae (Phyllinae, addenda to Deraeocorinae and Orthotylinae) of Khuzestan and the adjacent provinces of Iran (Hemiptera: Heteroptera). – *Acta entomologica Musei nationalis Pragae* **50** (2): 369–414.
- LINNAVUORI, R. & VAN HARTEN, A. (1997): Notes on Heteroptera (Insecta: Hemiptera) of Yemen. – *Fauna of Saudi Arabia* **16**: 169–236.
- LINNAVUORI, R. & MODARRES, M. (1999): Studies on the Heteroptera of the Khorasan province in NE Iran. II. Cimicomorpha: Miridae. – *Entomologica fennica* **10** (4): 215–234.
- LIS, J. A. (1993): Studies on Oriental Cydnidae. VIII. On *Aethus indicus* (Westwood), *A. philippinensis* Dallas and *A. pseudindicus* n. sp. (Heteroptera: Pentatomoidea). – *Genus* **4** (2): 103–111.
- LIS, J. A. (1994): A revision of Oriental burrower bugs (Heteroptera: Cydnidae); Bytom (Department of Natural History, Upper Silesian Museum, Poland), 349 pp.
- LIS, J. A. (1996): *Coleocydnus madagascariensis* n. sp. from Madagascar (Hemiptera: Heteroptera: Cydnidae). – *Genus* **7** (3): 347–350.
- LIS, J. A. (1999): Burrower bugs of the old world – a catalogue (Hemiptera: Heteroptera: Cydnidae). – *Genus* **10** (2): 165–249.
- MERKER, S. & STANICZEK, A. H. (2018): Stuttgart: The Zoological Collections of the Stuttgart State Museum of Natural History. – In: BECK, L. A. (ed.): Zoological collections of Germany, pp. 621–645.
- NIESER, N. (2002): Guide to aquatic Heteroptera of Singapore and Peninsular Malaysia. IV. Corixoidea. – *Raffles Bulletin of Zoology* **50**: 263–274.
- NIESER, N. & CHEN, P. P. (2006): Two new genera and a new subfamily of Micronectidae (Heteroptera, Nepomorpha) from Brazil. – In: RABITSCH, W. (ed.): Hug the bug – For love of true bugs. Festschrift zum 70. Geburtstag von ERNST HEISS. *Denisia* **19**: 523–534.
- PAPÁČEK, M. & ZETTEL, H. (2000): Revision of the Oriental genus *Idiotrephes* (Heteroptera: Nepomorpha: Helotrephidae). – *European Journal of Entomology* **97**: 201–211.
- PAPÁČEK, M., & ZETTEL, H. (2004): Helotrephidae of the World (Hemiptera: Heteroptera: Nepomorpha): checklist and bibliography. – *Acta Societatis zoologicae bohemicae* **68**: 99–108.
- PÉRICART, J. (1985): Trois espèces nouvelles de Tingidae du Nord-Pakistan et du Népal (Hemiptera). – *Revue suisse de Zoologie* **92** (3): 675–680.
- PÉRICART, J. (1996): Family Anthocoridae Fieber, 1836 – flower bugs, minute pirate bugs. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic Region. Vol. 2. Cimicomorpha I, pp. 108–140; Amsterdam (The Netherlands Entomological Society).
- POPOV, Y. A. (1991): On the first emesine bugs from the Nepal Himalayas (Heteroptera Reduviidae). – *Tropical Zoology* **4** (2): 259–267.
- PUCHKOV, V. G. (1976): Novye i maloizvestnye slepnyaki (Heteroptera, Miridae) fauny Turkmensoj i Kirgizskoj SSR. (New and little known Miridae (Heteroptera) from the Turkmen and Kirghiz SSR fauna.) – *Vestnik Zoologii* **3**: 49–57. (In Russian)
- PUTSHKOV, P. V. & P. MOULET. (2010): Hemiptères Reduviidae d’Europe occidentale. – *Faune de France* **92**: 1–668.
- PUTSHKOV, P. V. & PUTSHKOV, V. G. (1996): Family Reduviidae Latreille, 1807 – assassin bugs. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heteroptera of the Palearctic Region. Vol. 2. Cimicomorpha I, pp. 148–265; Amsterdam (The Netherlands Entomological Society).
- PUTSHKOV, P. V., RIBES, J., & MOULET, P. (1999): Révision des *Empicoris* Wolff d’Europe (Heteroptera: Reduviidae: Emesinae). – *Annales de la Société Entomologique de France (NS)* **35** (1): 31–70.
- RIDER, D. A. (2006): Family Pentatomidae Leach, 1815. – In: AUKEMA, B. & RIEGER, C. (eds): Catalogue of the Heterop-

- tera of the Palaearctic Region. Vol. 5. Pentatomomorpha II, pp. 233–402; Amsterdam (The Netherlands Entomological Society).
- RIEGER, C. (2006): Zur Synonymie westpaläarktischer Miriden (Heteroptera). – In: RABITSCH, W. (ed.): Hug the bug – For love of true bugs. Festschrift zum 70. Geburtstag von ERNST HEISS. *Denisia* **19**: 611–616.
- RIEGER, C. & GRIMM, D. (1999): Ein neuer *Closterotomus* aus Griechenland (Hemiptera: Heteroptera: Miridae). – *Reichenbachia* **33**: 227–230.
- SCHUH, R. T. & ŠTYS, P. (1991): Phylogenetic analysis of cimicomorphan family relationships (Heteroptera). – *Journal of the New York entomological Society* **99**: 298–350.
- STICHEL, W. (1956–62): Illustrierte Bestimmungstabellen der Wanzen. II. Europa. 4 volumes + index. Stichel, Berlin-Hermsdorf.
- TAMANINI, L. (1951): Risultati della spedizione scientifica zoologica de Museo Nazionale di Praha fatta in Turchia. 3, Hemiptera-Heteroptera. II. *Velia filippii* Tam. *anatolica* subsp. nova (Veliidae). – *Acta entomologica Musei nationalis Pragae* **26** (355): 1–3.
- TAMANINI, L. (1952): Caratteri e distribuzione della *Velia ventralis* Puton. 1881 (Hem. Heter. Veliidae). – *Bollettino della Società entomologica italiana* **32**: 39–41.
- TAMANINI, L. (1953): Valore specifico e distribuzione della *Velia affinis* Kolenati (Hemiptera Heteroptera, Veliidae). – *Atti della Accademia roveretana degli Agiati, Serie 5* **1** (1952): 133–142.
- TAMANINI, L. (1962): Contributo allo studio delle Codophila (Antheminia) con speciale riguardo alle entità dell'Asia (Hem. Het., Pentatomidae). – *Notulae entomologicae* **42**: 43–56.
- WAGNER, E. (1954): *Euryopicoris fennicus* nov. spec., eine neue Miriden-Art aus Finnland (Hemipt. Heteropt.). – *Notulae entomologicae* **34**: 82–84.
- WAGNER, E. (1955): *Lyctocoris nidicola* n. sp., eine neue Anthocoriden-Art aus Finnland (Hem., Het.). – *Notulae entomologicae* **35**: 60–62.
- WAGNER, E. (1956): Drei neue Miriden-Arten aus Aegypten und Bemerkungen zu einer bereits bekannten Art. – *Bulletin de la Société Entomologique d'Égypte* **40**: 1–9.
- WAGNER, E. (1957): Heteropteren aus Iran 1954 II. Teil Hemiptera-Heteroptera (Fam. Miridae). (Ergebnisse der Entomologischen Reisen WILLI RICHTER, Stuttgart, in Iran 1954 und 1956–Nr. 9). – *Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg* **122**: 74–103.
- WAGNER, E. (1958a): Heteropteren aus Iran 1956, II. Hemiptera-Heteroptera (Familie Miridae) (Ergebnisse der Entomologischen Reisen WILLI RICHTER, Stuttgart, in Iran 1954 und 1956–Nr. 18). – *Stuttgarter Beiträge zur Naturkunde* **12**: 1–13.
- WAGNER, E. (1958b): Zur Gattung *Sthenarus* Fieber 1858 (Hem. Het. Miridae). – *Acta entomologicae Musei nationalis Pragae* **32**: 405–421.
- WAGNER, E. (1959): Notes on two species of Heteroptera from Israel. – *Bulletin of the Research Council of Israel, Section B, Zoology* **8**: 35–38.
- WAGNER, E. (1960): Über einige neue Miriden-Arten aus dem zoologischen Museum Helsingfors (Hem. Heteropt.). – *Notulae entomologicae* **40**: 112–122.
- WAGNER, E. (1964a): Neuer Beitrag zur Systematik der Gattung *Tuponia* Reuter 1875 (Hem. Het. Miridae). – *Entomologische Berichten* **24**: 192–200, 215–220.
- WAGNER, E. (1964b): Zur Systematik der Gattung *Aphaenophyes* Reuter 1899 (Hem. Het. Miridae). – *Notulae entomologicae* **44**: 21–26.
- WAGNER, E. (1975): Die Miridae Hahn, 1831, des Mittelmeerraumes und der Makaronesischen Inseln (Hemiptera, Heteroptera). – *Entomologische Abhandlungen Staatlichen Museums für Tierkunde Dresden. Bd. 40. (Suppl.)* Leipzig (Akademische Verlagsgesellschaft Geest u. Portig): 483 pp.
- WRÓBLEWSKI, A. (1962a): Notes on some Asiatic species of the genus *Micronecta* Kirk. (Heteroptera, Corixidae). II. – *Bulletin de l'Académie Polonaise des Sciences Cl. II* **10**: 29–32.
- WRÓBLEWSKI, A. (1962b): Notes on some Asiatic species of the genus *Micronecta* Kirk. (Heteroptera, Corixidae). III. – *Bulletin de l'Académie Polonaise des Sciences Cl. II* **10**: 33–37.
- ZETTEL, H. (2002): The Helotrephidae (Insecta: Heteroptera) of the Philippine Islands. – *Annalen des naturhistorischen Museums in Wien. Serie B für Botanik und Zoologie* **104**: 45–97.
- ZETTEL, H. (2009): Further new Helotrephini (Insecta: Heteroptera: Helotrephidae) from Vietnam, Malaysia, and the Philippines. – *Annalen des naturhistorischen Museums in Wien. Serie B für Botanik und Zoologie* **110**: 33–50.
- ZETTEL, H., PAPÁČEK, M., & KOVAC, D. (2011): Guide to the aquatic Heteroptera of Singapore and Peninsular Malaysia: VII. Family Helotrephidae. – *Raffles Bulletin of Zoology* **59** (2): 171–179.

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