**ACTA ENTOMOLOGICA MUSEI NATIONALIS PRAGAE**
Published 6.xi.2006 Volume 46, pp. 197-210 ISSN 0374-1036

# Revision of the European species of *Scorpioteleia* (Hymenoptera: Diapriidae)

Jan MACEK

Department of Entomology, National Museum, Kunratice 1, CZ-148 00 Praha 4, Czech Republic;
e-mail: macjan@seznam.cz

**Abstract.** The European species of *Scorpioteleia* Ashmead, 1897 are revised, diagnosed and keyed. Five European species of the genus are recognized, including one new species – *Scorpioteleia nixoni* sp. nov. – described from the Czech Republic, Austria, Poland, Russia and Sweden. Two new synonyms are proposed: *Scorpioteleia* = *Eumiota* Hellén, 1964, syn. nov., and *S. longepetiolata* (Thomson, 1859) = *S. longiventris* Kieffer, 1910, syn. nov. New country records are presented for *S. compressa* (Kieffer, 1910) (Austria), *S. cebes* (Nixon, 1957) (Hungary, Poland, Slovakia), and *S. luteipes* (Kiefer, 1910) (Albania, Hungary, Slovakia).

**Key words.** Hymenoptera, Diapriidae, *Scorpioteleia*, *Eumiota*, taxonomy, types, new species, synonymy, Europe

## Introduction

The genus *Scorpioteleia* Ashmead, 1897, was established for *S. mirabilis* Ashmead, 1897, by monotypy (ASHMEAD 1897). Subsequently, KIEFFER (1910a) included four European species with long marginal veins in the genus, clearly in contradiction to Ashmead's original diagnosis of *S. mirabilis* (short marginal vein). Kieffer's species are unambiguously consistent with the concept of the genus *Cinetus* Jurine, 1807; this fact was confirmed by NIXON (1957) who revised available types. NIXON (1957) transferred *Scorpioteleia lusitanica* Kieffer, 1910, to *Cinetus* and synonymized *S. rufa* Kieffer, 1910, with *Cinetus piceus* Thomson, 1859. HELLÉN (1964) transferred *Scorpioteleia ditoma* Kieffer, 1910, to *Cinetus*. The nomenclature is further greatly confused by the identity of the genus *Miota* Förster, 1856. FÖRSTER (1856) established *Miota* without having included any species, and the genus is thus based on the first included species, *Miota glabra* Ashmead, 1890 (ASHMEAD 1890). However, ASHMEAD's (1897) concept of *Miota* based on *M. glabra* does not agree with that of FÖRSTER's

(1856). KIEFFER (1910a), closely following Förster's generic diagnosis, assigned five European species to *Miota* including *M. macrocera* (Thomson, 1859) and *M. longepetiolata* (Thomson, 1859) previously placed in *Cinetus*. Following MUESEBECK & WALKLEY's (1956) view that *M. glabra* belongs to *Cinetus*, HELLÉN (1964) provided the name *Eumiota* Hellén, 1964, for the species remaining in *Miota* sensu Förster. At the same time, MASNER (1964) discussed the relationships between *Scorpioteleia* and *Miota* and proposed to transfer all species then placed in *Miota* to *Scorpioteleia*. MASNER & MUESEBECK (1968) subsequently synonymized *Eumiota* with *Scorpioteleia.* Nevertheless, JOHNSON (1992) did not follow MASNER (1964) and listed, without any explanation, four species of *Scorpioteleia* (three European and one Nearctic) and three European species of *Eumiota*. HELLÉN (1964) transferred *M. macrocera* to *Acropiesta* Förster, 1856 (confirmed by MACEK (1998)); five European species thus remain in *Scorpioteleia*. They are treated in this revision.

## Material and methods

Most of the specimens were collected in the last three decades in flight intercept traps (treated with pyrethroid), in pan traps and by screen sweeping. Unless stated otherwise, I have identified all specimens, and they are housed in the collection of National Museum, Praha, Czech Republic (NMPC). Some specimens including types were obtained from the following institutions:

BMNH Natural History Museum, London, Great Britain (J. Noyes);
HNMH Hungarian National History Museum, Budapest, Hungary (J. Papp);
MNHN Museum National d'Histoire de Naturelle, Paris, France (J. C. Weulersse);
MZLU Zoological Museum, Lund, Sweden (R. Danielsson);
NHMW Naturhistorisches Museum, Wien, Austria (M. Fischer).

Other abbreviations used in the text:

F1-n flagellomere(s) 1-n;
NP National Park;
NR Nature Reserve;
OOL distance between eye and posterior ocellus;
POL distance between hind ocelli.

Terminology of characters used here is adopted from MASNER (1991) and MACEK (1995). Map codes of the Central European grid mapping system for the Czech and Slovak localities are based on PRUNER & MÍKA (1996).

## Taxonomy

### *Scorpioteleia* Ashmead, 1897

*Scorpioteleia* Ashmead, 1897: 53. Type species: *Scorpioteleia mirabilis* Ashmead, 1897 (by monotypy).
*Miota*: KIEFFER (1910): 685-691 (nec FÖRSTER 1856); KIEFFER (1916): 584-589 (partim).
*Scorpioteleia*: MUESEBECK & WALKLEY (1951): 685; MUESEBECK & WALKLEY (1956): 398.

*Miota*: Nixon (1957): 102, 104 (nec Förster 1856).
*Scorpioteleia*: Masner (1964): 130.
*Eumiota* Hellén, 1964: 7, 15, **syn. nov.** Type species: *Cinetus longepetiolatus* Thomson, 1859 by original designation).
*Eumiota*: Wall (1967): 135, 151; Kozlov (1978): 562; Johnson (1992): 73.
*Scorpioteleia*: Johnson (1992): 107.

**Diagnosis** (♂♂, ♀♀). Mostly medium sized (3-4 mm), brownish to black species with light-coloured appendages; head subtriangular in frontal view, with orthognathous mouth parts; mandibles slightly asymmetrical, left bidentate, right tridentate, crossing at tips; occipital carina incomplete, developed in upper part, subquadrangular, hypostomal bridge and hypostomal carina developed; clypeus slightly convex, lustrous, with lower margin truncate; labrum transverse, slightly emarginated in middle; epistomal sulcus distinct; fore tentorial pits deep; palpal formula 5-3; apical segment of maxillary palps slender, twice as long as penultimate; antennal shelf moderately prominent with shallow furrow between toruli; antennae in females 15-segmented and more or less filiform, in males 14-segmented, filiform, release and spread structure of F1 variously modified. Mesosoma slender, higher than wide, narrower than head; pronotum with angular shoulders, surrounded by distinct epomia; mesoscutum convex; notauli complete, slightly diverging posteriorly; parapsidal impressions (situated laterad of notauli) usually in form of shallow declivities; humeral sulcus posteromedial to tegula prominent; scutellum convex with large subquadrate fovea; mesopleura subdivided by deep, oblique mesopleural furrow in middle terminated by indistinct pit at its posterior end; sternaulus only slightly indicated posteriorly; dorsellum flat with three short longitudinal keels, lateral metanotum deeply furrowed; propodeum subquadrate, convex, with plicae not protruded posteriorly; medial keel of propodeum simple, nucha developed.

Radial cell of fore wings completely closed, longer than marginal vein, surpassed by postmarginal vein; poststigmal vein diverging from marginalis towards medial vein, parallel alongside basal vein; hind wings with closed indistinct basal cell.

Legs slender; tibial spur formula 1-2-2; tarsal formula 5-5-5; claws simple; fore tibiae in male slightly widened in middle with some modified setae.

Petiole short to long, cylindrical, rugose or ribbed; gaster fusiform, more or less compressed at sides with all remaining segments in repose collapsed inside the enlarged metasomal segment; pygidium spine-like, upcurved and exposed; enlarged terga surrounding the sterna thus forming a tube; macrosternite with incomplete lateral groove not reaching end of segment. Ovipositor thin and small with large gonoplacs (= third valvulae). Male genitalia with fused volsellae and dentes.

**Differential diagnosis.** Species of *Scorpioteleia* are easily recognised from both *Miota* and *Cinetus*, with which they have been confused in past, by the marginal vein being distinctly shorter than both the radial cell and parastigma (= the abscissa of Sc+R between marginal and basal veins). All species are known only from limited areas in the Holarctic region. Given the small number of described species, an attempt to reliably assess the phylogenetic position of *Scorpioteleia* among the Belytinae genera is premature. However, based on the fused volsellae and dentes in male genitalia, slightly posteriorly diverging notauli and strongly down-

curved stigmal vein, *Scorpioteleia* appears to be more similar to *Cinetus* than to *Miota*, which has the male genitalia with free dentes, parallel notauli and a straight stigmal vein.

**Bionomics.** Hosts of most species are almost unknown, but field observations and rearing suggest that *Scorpioteleia* species are associated with fungivorous Nematoceran Diptera of the superfamily Mycetophiloidea, which develop in soft sporocarps of Basidiomycetes.

**Distribution.** The genus is distributed throughout the Holarctic region. Six species are recognized, one Nearctic (*S. mirabilis*) and five European.

**Taxonomic remarks**. The five European species, except for *S. gracilicornis* (Kieffer, 1910) which belongs to *Cinetus*, appear to form two species-groups based on differences in the structure of the female metasoma: the *longepetiolata* and the *compressa* groups.

The *longepetiolata* group is characterized by the combination of the following characters: i) petiole very long and slender; ii) gastral segment 1 distinctly laterally compressed at distal half; iii) collapsed segments of gaster high and compressed in profile; iv) pygidium always exposed in repose. This group includes two species: *S. longepetiolata* (Thomson, 1859) and *S. nixoni* sp. nov.

The *compressa* group is characterized by the combination of the following characters: i) petiole short and stout; ii) gastral segment 1 constricted apically to form a tube; iii) all remaining gastral segment including pygidium collapsed inside segment 1; iv) collapsed part in exposed position forming a very long and slender tube, thus the whole structure resembling a scorpion tail. Three species belong to this group: *S. compressa* (Kieffer, 1910), *S. cebes* (Nixon, 1957), and *S. luteipes* (Kieffer, 1910).

## Key to species of the European *Scorpioteleia*

1 Petiole at least four times as long as wide (Fig. 1); gastral segment 1 in females compressed posteriorly, with remaining tergites at least partly exposed at rest; antennae slender with preapical flagellomeres at least 2.5 times as long as wide (Fig. 6). ***S. longepetiolata* group** ..... **2**

– Petiole short, at most 2.5 times as long as wide (Fig. 3); gastral segment 1 in females abruptly narrowed posteriorly; remaining segments tubular and completely concealed within segment 1 but forming a scorpion-tail-like structure when extruded; antennae with preapical flagellomeres at most twice as long as wide (Fig. 8). ***S. compressa* group** ..... **3**

2(1) Mesosoma slender (Fig. 2); subapical flagellomere in females at least three times as long as wide (Fig. 7); F1 in males very deeply emarginated and strongly convex dorsally (Fig. 12) ..... ***S. nixoni*** sp. nov.

– Mesosoma stouter (Fig 1); subapical flagellomere in females at most 2.5 times as long as wide (Fig. 6); F1 in males hardly convex dorsally (Fig. 11) ..... ..... ***S. longepetiolata*** (Thomson, 1859).

3(1) Macrotergite with fine striation at base between slightly indicated middle furrow and short lateral impressions; pronotal shoulders sharply pointed (Fig. 5). ..... ..... ***S. cebes*** (Nixon, 1957).

– Macrotergite smooth at base between medial furrow and lateral impressions; pronotal shoulders angular, not pointed. ..... **4**

4(2) Body large and stout (5-6 mm) (Fig. 4); antennae of females with even, dense, contiguous pubescence; hairs shorter than half of the width of flagellomeres (Fig. 10); radial cell large, triangular, with stigmal vein slightly oblique (Fig. 20); lateral impressions at base of macrotergite large and deep; apical part of macrosternite bare in females; F1 in males with basal emargination symmetrical, covering less than half of the flagellomere (Fig. 15) ..... ***S. luteipes*** (Kieffer, 1910).

– Body smaller and slender (3-4.5 mm) (Fig. 3); antennae of females with short, semidecumbent pubescence interspersed with single long erect hairs (Fig. 8); radial cell narrow with strongly oblique stigmal vein (Fig. 18); lateral impressions at base of macrotergite inconspicuous; all surface of macrosternite pubescent in females; F1 in males with basal emargination asymmetrical, covering more than half of the flagellomere (Fig. 13). ..... ..... ***S. compressa*** (Kieffer, 1910).

### *Scorpioteleia longepetiolata* (Thomson, 1859)

(Figs.1, 6, 11, 16, 21)

*Cinetus longepetiolatus* Thomson, 1859: 164, ♂.
*Miota longiventris* Kieffer, 1910: 691, ♀, **syn. nov.**
*Miota longepetiolata*: Kieffer (1910): 687.
*Scorpioteleia longepetiolata*: Masner (1964): 130.
*Miota longipetiolata*: Nixon (1957): 104 (subsequent incorrect spelling).
*Scorpioteleia longiventris*: Masner (1964): 130.
*Eumiota longepetiolata*: Hellén (1964): 16, 17.
*Eumiota longiventris*: Wall (1967): 151; Johnson (1992): 73.
*Eumiota longepetiolata*: Kozlov (1978): 562, 564; Johnson (1992): 73.

**Type locality.** Sweden, Skĺne.
**Type material examined.** *Miota longiventris*: Holotype: ♀, 'Austria, Styria, Obere Steiermark, Tragöss, in July, Graeffe lgt., Kieffer det.' (HNMH).
**Additional material examined. CZECH REPUBLIC:** Bohemia bor., Sokolov distr., Chodov (5742), 6.vii.2001, 8 spec. Bohemia or., Železné hory Mts., Buchtovka NR (6160), 9.viii.1998, 1 spec., F. Bárta lgt.; Orlické hory Mts., Orlické Záhoří (5765), 12.ix.1995; Kralický Sněžník NR, Mlýnský potok brook (5866), 2.viii.2001, 2 spec. Bohemia mer., Třeboň distr., Smržov (6954), 1.vii.1981, 1 spec.; Šumava Mts., Bulový hill (7050), 7.vii.1981, 1 spec.; Lhenice (7050), 5.vii.1981, 1 spec.; Vysoký Kamýk hill (6751), 26.viii.1982, 1 spec. Bohemia centr., Vůznice NR (5950), 12.vii.1994, 1 spec., 16.viii.1994, 1 spec. Moravia mer., Babice (6766), 7.vii.1938, F. Gregor lgt., 1 spec.; all J. Macek lgt. (unless stated otherwise) and det. (NMPC). **GERMANY:** Bavaria, Spiegelau, 7.- 11.ix.1995, 2 spec., Barták lgt., J. Macek det. (NMPC). **AUSTRIA:** Styria, Vockenberg, Furtner Teich, 900 m a.s.l., 3.viii.1971, 5 spec.; Neumarkt, Gragger Schlucht, 900-1000 m a.s.l., 10.vii. 1971, 2 spec., all M. Fischer lgt., J. Macek det. (NMPC, NHMW). **SWEDEN:** Skåne, 2 spec., Boheman coll. (MZLV).

**Diagnosis.** Habitus slender. Head in frontal view triangular; mandibles prominent, slightly overlapping at tips; mouth aperture narrow, shorter than malar space; transverse diameter of eyes shorter than malar space; antennae very slender, filiform; mesosoma slender, a little narrower than head, notauli deep, diverging posteriorly; postmarginal vein considerably surpassing radial cell; petiole long, slender; gaster long with its first enlarged segment (macrosegment) laterally compressed posteriorly, remaining segments mostly collapsed inside it.
**Variability**. No apparent variation apart from size (2.5-4.5 mm) ascertained in the material examined.
**Bionomics.** Hosts unknown; flight period from July to September.

**Distribution.** The species is known only from Austria (KIEFFER 1910), Germany, Sweden (NIXON 1957), Russia (KOZLOV 1978), and the Czech Republic (MACEK 1989).
**Remarks.** As the depository of the type(s) of *Cinetus longepetiolatus* is unknown, the present species concept is based on two male specimens from Skåne, Sweden, from the Boheman collection (MZLV). These specimens fit closely the original diagnosis.

### *Scorpioteleia nixoni* sp. nov.

(Figs. 2, 7, 12, 17, 22)

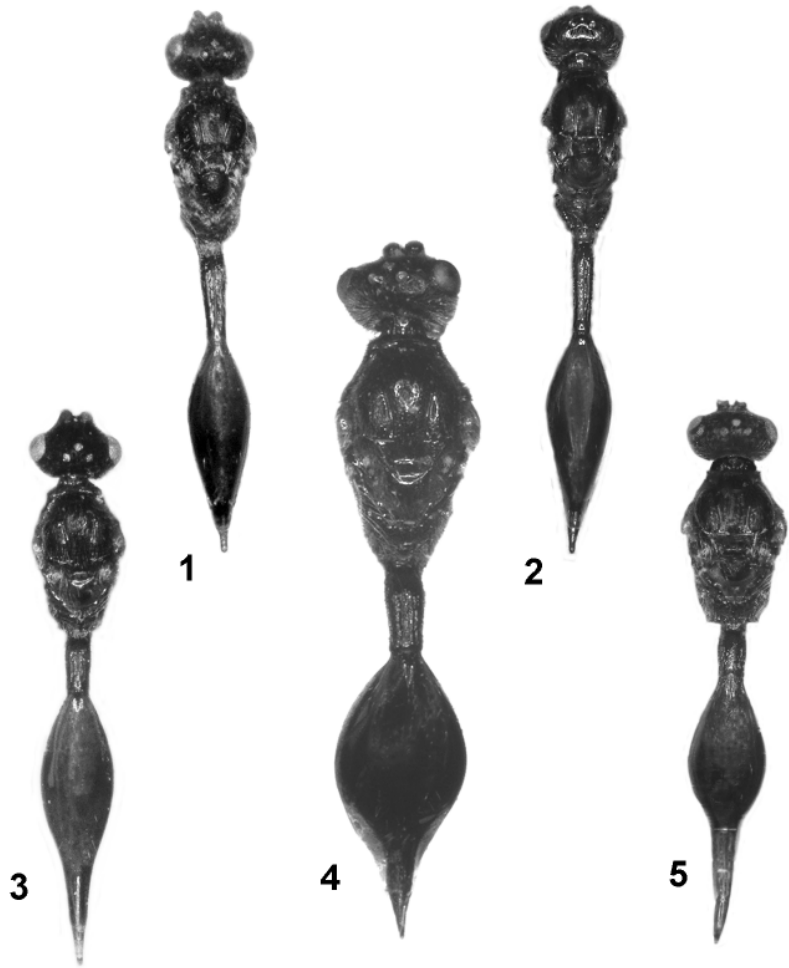
*Miota longiventris*: NIXON (1957): 104 (nec KIEFFER 1910).
*Miota longiventris*: WALL (1967): 157 (nec KIEFFER 1910).

**Type locality.** Czech Republic, Králický Sněžník Mt., Horní Morava valley.
**Type material.** HOLOTYPE: ♀, 'CZ, Králický Sněžník NR, Horní Morava (valley) (5866), 24.viii.2001, J. Macek lgt. et det.' (NMPC). ALLOTYPE: ♂, 'CZ, Bohemia mer., Pelhřimov env., Křemešník (hill) (6557), 16.vii.1982, J. Macek lgt. et det.' (NMPC). PARATYPES: **CZECH REPUBLIC:** BOHEMIA occ., Sokolov distr., Rašeliny (hopper) (5742), 28.viii.2001, 1 ♀ , P. Chvojka & J. Ježek lgt.; Sokolov distr., Svatý Jiří (hopper) (5742), 6.vii.2001, 1 ♂, P. Chvojka & J. Ježek lgt. BOHEMIA bor., Dubá (5453), 27.vii.1986, 1 ♀; Bělá u Děčína (5251), 20.viii.1956, 2 ♀♀, Z. Bouček lgt.. BOHEMIA or., Orlické hory Mts., Zvonkové údolí (valley) (5764), 21.vii.2003, 2 ♂♂; Orlické hory Mts., Pod Sfingou (forest) (5764), 19.viii.2003, 1 ♀; Orlické hory Mts., Kamenec (hill) (5663), 9.x.1995, ♀, J. Hájek lgt.; Běstvina (6159), 18.vii.1985, 1 ♀. BOHEMIA mer., Pelhřimov env., Křemešník (hill) (6557), 16.vii.1982, 1 ♂; Stará Obora (forest) (6952), 5.vii.1982, 1 ♂; Lomnice nad Lužnicí env., Kolenská obora (forest) (6954), 2.vii.1981, 1 ♂; Novohradské hory Mts., Myslivna (hill) (7354), 11.viii.1993, 1 ♂; Třeboň env., Stříbřec (6955), 17.x.1985, 1 ♀; Rožmberk nad Vltavou (7352), 5.vii.1981, 1 ♀. MORAVIA mer., Moravian Karst, Pustý žleb (valley) (6666), 8.viii.1991, 1 ♀; Ubušín (6363), 2.viii.1938, 2 ♀♀, F. Gregor lgt. **AUSTRIA:** WIEN, ix.1917, 1 ♀, J. Sekera lgt. STYRIA: S Hizmansdorf bei Mühlen, 950 m a.s.l., 23.vii.1971, 2 ♀♀, M. Fischer lgt. (NHMV). **POLAND** bor.: Bory Tucholskie (forest), Sliwice, 22.ix.1987, 1 ♀. **RUSSIA:** LENINGRAD prov., Pavlovsk, 17.ix.1963, Z. Bouček lgt., 1 ♀. All paratypes J. Macek lgt. and det., unless stated otherwise (NMPC).

**Description.** Female (holotype). Length 4.5 mm. Colour black brown; antennae, legs, mandibles and palpi yellowish.

Head higher than long in lateral view; strongly transverse in dorsal view, triangular with smooth face in frontal view; antennal sockets prominent, with indistinct rugosity below; toruli closely approximated, their distance shorter than diameter of each torulus; temples converging posteriorly; ocelli distinct, OOL > POL; longitudinal diameter of eye as long as malar space; eyes very sparsely pubescent; subantennal furrows very short, slightly indicated; antennae very long, filiform, with short dense pubescence; scape very slender, slightly curved, 1.5 times as long as F1; flagellomeres very slender, cylindrical, becoming shorter towards apex of antenna; F1 five times as long as wide; subapical flagellomere three times as long as wide.

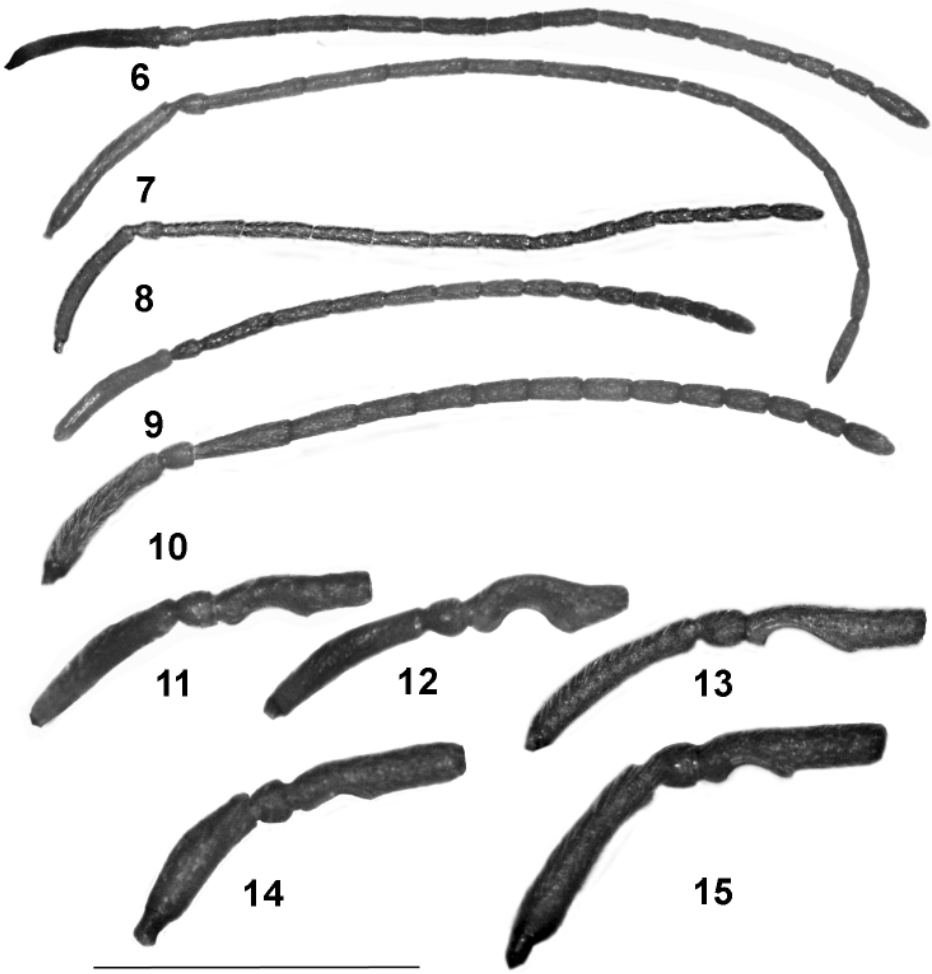
Mesosoma convex, slightly narrower than head; pronotal shoulders angular; lateral pronotum smooth and very shiny, visible from above; each pronotal shoulder connected with tegula by distinct upper rim lining the sulcus; mesoscutum convex; scutellum convex, smooth, with large subquadrate anterior fovea; lateral foveae smooth, with a very fine tuft of pubescence; dorsellum flat; lateral sides of metanotum smooth with deep hollow; propodeum slightly transverse with subquadrate dorsal surface, sparsely pubescent; posterior margin of propodeum with indistinct rim; medial keel of propodeum simple, indistinct; plicae not prominent posteriorly.




Figs. 1-5. Habitus, dorsal view, females. 1 – *Scorpioteleia longepetiolata* (Thomson, 1859); 2 – *S. nixoni* sp. nov.; 3 – *S. compressa* (Kieffer, 1910); 4 – *S. luteipes* Kieffer, 1910; 5 – *S. cebes* (Nixon, 1957). Scale = 3.5 mm

Wings hyaline with all veins tubular; marginal vein slightly shorter than parastigma; radial cell closed, 1.5 times as long as marginal vein; postmarginal vein widely surpassing radial cell; stigmal vein curved, slightly oblique to marginal vein, shorter than marginal vein.

Petiole very long, five times as long as wide, slender, with longitudinal ribs and irregular fine rugosity between them; gaster fusiform; macrotergite smooth, lustrous with very sparse hairs, compressed posteriorly, covering most of the visible part of gaster; remaining gastral




Figs. 6-15. 6-10 – antenna, female. 6 – *Scorpioteleia longepetiolata* (Thomson, 1859); 7 – *S. nixoni* sp. nov.; 8 – *S. compressa* (Kieffer, 1910); 9 – *S. cebes* Nixon, 1954; 10 – *S. luteipes* Kieffer, 1910. Scale = 1 mm. 11-15 – antenna, male, basal part. 11 – *S. longepetiolata*; 12 – *S. nixoni* sp. nov.; 13 – *S. compressa* (Kieffer, 1910); 14 – *S. cebes* Nixon, 1954; 15 – *S. luteipes* Kieffer, 1910. Scale = 0.5 mm.

segments largely collapsed into gastral segment 1 but pygidium exposed; basal sculpture of macrotergite indistinct; gonoplacs strongly pigmented.

Male (allotype). Scape slender, shorter than F1; F1 with deep semicircular emargination on basal half.

**Variability.** The examined material shows no substantial variation apart from body size (2.5-4.5 mm).

**Differential diagnosis.** *Scorpioteleia nixoni* sp. nov. is very similar to *S. longepetiolata* and differs only by the slender mesosoma and very long, filiform antennae in females and deeply emarginated flagellomere 1 in males (see also the key above).

**Etymology.** This species is dedicated to G. E. J. Nixon, a prominent British hymenopterologist.
**Bionomics.** Hosts unknown; flight period from July to September.
**Distribution.** Known only from the Czech Republic, Austria, Sweden, Russia (Leningrad Province) and Poland.
**Remark.** In his key, NIXON (1957) included two distinct species of the former *Miota* which have a long petiole and compressed gaster – *M. longiventris* nec Kieffer, 1910, and *M. longepetiolata* (Thomson, 1859). Because the true *M. longiventris* Kieffer, 1910, is conspecific with *M. longepetiolata* (based on the revision of type specimens), Nixon's '*M. longiventris*' is here recognized as a new species.

### *Scorpioteleia compressa* (Kieffer, 1910)

(Figs. 3, 8, 13, 18, 23)

*Miota compressa* Kieffer, 1910: 690, ♀.
*Miota compressa*: KIEFFER (1916): 585, 587; NIXON (1957): 104.
*Scorpioteleia compressa*: MASNER (1964): 130.
*Eumiota compressa*: HELLÉN (1964): 17; WALL (1967): 151; JOHNSON (1992): 73.

**Type locality.** France, Fontainebleu.
**Type material.** Type depository unknown, type(s) probably lost.
**Additional material examined. CZECH REPUBLIC:** BOHEMIA occ., Sokolov distr., Chodov env., Šídlo (pond) (5742), 28.viii.2001, 1 spec. BOHEMIA mer., Třeboň distr., Hamr (6954), 31.v.1983, 1 spec. BOHEMIA or., Dobruška env., Mělčany (5763), 2.x.2002, 1 spec., 24.vii.2002, 1 spec. MORAVIA mer., Podyjí NP, Braitava forest (7160), 14.viii.1992, 4 spec.; Podyjí NP, Mašovice (7161), 11.vi.1992, 2 spec.; Podyjí NP, Čížov, 11.viii.1992, 1 spec.; Podyjí NP, Klapperův potok (brook) (7161), 11.viii.1992, 4 spec.; Podyjí NP, Zlámaná skála (rock) (7161), 11.vi.1992, 1 spec.; Podyjí NP, Šobes (7161), 10.vii.1997, 1 spec.; Lednice (7166), 7.ix.1985, 5 spec.; Lednické rybníky NR (7266), 7.viii.1991, 1 spec.; Hodonín (7168), 29.vii.1987, 1 spec.; Lanžhot env., Ranšpurk NR (7367), 7.viii.1992, 1 spec. **SLOVAKIA** occ.: Čachtice (7272), 11.viii.1991, 2 spec. **AUSTRIA:** TIROL, Ventertal bei Zwiesenstein, 1470 m a.s.l., 10.viii.1968, 2 spec., M Fischer lgt.; Ötztal, Sölden, Windach-Schlucht, 1380 m a.s.l., 16.vii.1969, 1 spec., M. Fischer lgt. **SWITZERLAND** or.: GRAUBÜNDEN, Vulpera, 1300 m a.s.l., 2.viii.1973, 1 spec., Haselbarth lgt. All J. Macek lgt. and det. unless stated otherwise (NMPC).

**Diagnosis.** Habitus slender. Head triangular in frontal view; toruli prominent, separated by deeper cleft; transverse diameter of eyes shorter than malar space; antennae very slender, filiform with preapical segments about 2.35 times as long as wide; pubescence of antennae heterogeneous, with intermittent long erect setae scattered through denser shorter setae; mesosoma slender and little narrower than head; petiole short, 2.5 times as long as wide, slightly rugose and swollen anteriorly; gaster long and fusiform with the first enlarged segment constricted posteriorly and forming neck-like tube in which all remaining gastral segments are collapsed; base of macrotergite with short medial furrow and lateral depression, space between furrows smooth; macrosternite pubescent along its entire surface.
**Variability.** No substantial variation apart from size (2.5-4 mm) observed.
**Bionomics.** Some specimens were bred from *Boletus* sp(p). and *Suillus* sp(p). sporocarps infested by *Mycetophila fungorum* (de Geer, 1776) (Diptera: Mycetophilidae) (P. Laštovka and J. Ševčík det.). Females were also observed moving on the surface of mushroom sporocarps in the field. Flight period from July to September.
**Distribution.** This species is known only from France (KIEFFER 1910), Germany, Sweden (NIXON 1957), Switzerland (WALL 1967), Finland (HELLÉN 1964), the Czech Republic, and Slovakia (MACEK 1989). It is a new species for Austria.

**Remark.** NIXON (1957) indicated by an asterisk in his key that he examined the type of *Miota compressa*. However, no specimens studied by him (England: Surrey, and Sweden: Skåne) come from the type locality (France: Fontainebleu, coll. de Gaulle), and I therefore think he made a mistake. According to KELNER-PILLAULT's (1958) catalogue of Kieffer's collection in MNHN, the type of *Miota compressa* is missing and probably lost. For this reason I follow NIXON's (1957) concept of the species.

### *Scorpioteleia cebes* (Nixon, 1957)

(Figs. 5, 9, 14, 19, 24)

*Miota cebes* Nixon, 1957: 104, ♀.
*Scorpioteleia cebes*: MASNER (1964): 130; JOHNSON (1992): 107.

**Type locality.** Sweden, Skíne.
**Type material examined.** *Miota cebes*: HOLOTYPE: ♀, 'Sweden, Skåne, Höör dist., 11.vi.1938, Perkins et Perkins lgt., Nixon det. (BMNH).
**Additional material examined. CZECH REPUBLIC:** BOHEMIA centr., Přerov nad Labem (5854), 6.v.1988, 2 spec.; Beroun dist., Vůznice (brook) (5949), 30.vi.1985, 1 spec.; Praha – Krč (5952), 13.ix. 1984, 2 spec.; Slaný env., Bílichov (5750), 1.ix.1984, 1 spec. BOHEMIA mer., Landštejn (6957), 30.vi.1986, 1 spec.; Lomnice nad Lužnicí env., Kolenská obora (forest) (6954), 1.vii.1981, 1 spec.; Hluboká nad Vltavou env., Stará obora (forest) (6952), 2.vi.1981, 1 spec. MORAVIA mer., Bulhary (7166), 10.v.1985, 1 spec.; Podyjí NP, Braitava (forest) (7160), 14.viii.1992, 4 spec.; Podyjí NP, Čížov (7161), 11.viii.1992, 2 spec. **SLOVAKIA** mer.: Silica (7489), 15.v.1985 , 4 spec.; Gombasek (7575), 17.v.1985, 6 spec. **POLAND** mer.: Ojcow NR., 8.vi.1989, 1 spec. POLAND centr.: Radziejowice, 29.vi.-3.vii.1977, Ekipa lgt., 1 spec.; Klembów, Debina NR, 31.viii.1981, Ekipa lgt., 1 spec. **HUNGARY** bor.: Pilis Mts., Pilisszentlaszló, 28.viii.1988, 2 spec. All J. Macek lgt. (unless stated otherwise) and det. (NMPC).

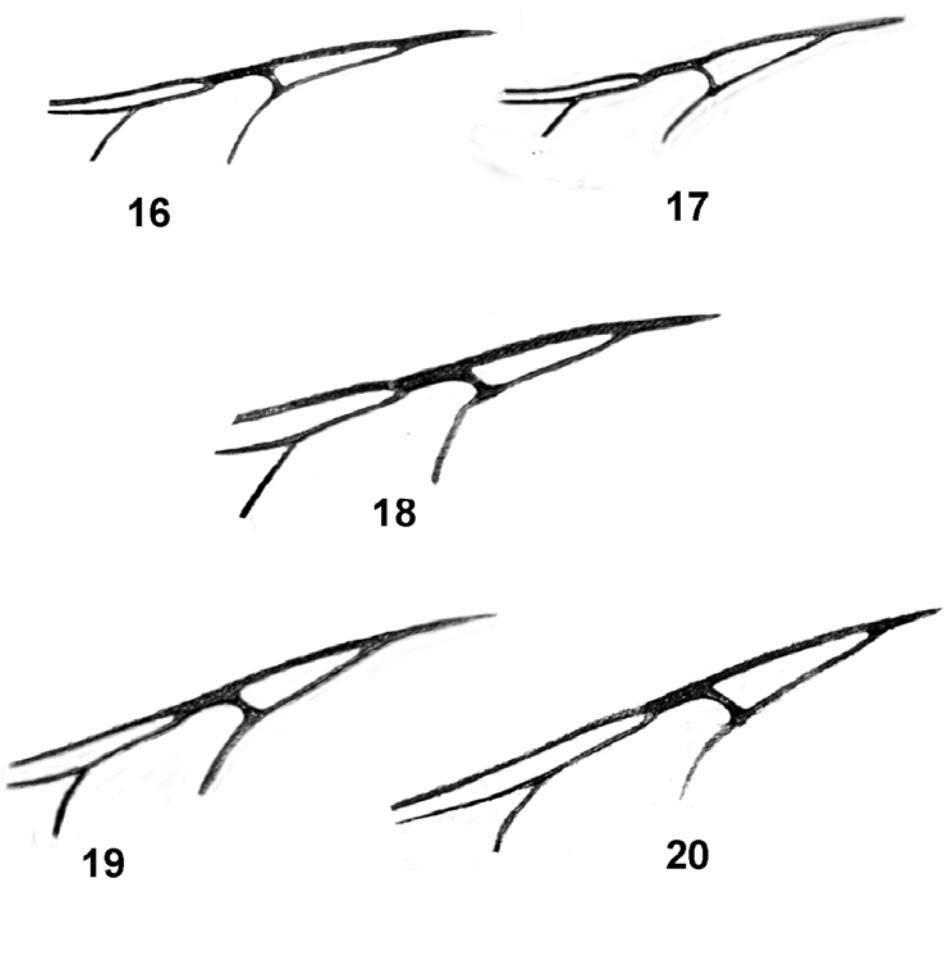
**Diagnosis.** The species is similar to *S. compressa* but differs by the combination of the following characters: i) antennae shorter with preapical flagellomere about 1.5 times as long as wide (females); ii) pronotal shoulders sharply pointed (both sexes); iii) macrotergite at base with a fine striation between basal lateral impressions, medial furrow obsolete (both sexes); iv) macrosternite bare except for several setae on about basal third (females); v) emargination at base of F1 symmetrical (males).
**Variability.** No apparent variation was ascertained in the material examined.
**Bionomics.** Hosts unknown. Adults were bred from sporocarps of Boletales and Agaricales infested by various species of mycetophilid larvae. Flight period from May to September.
**Distribution.** This species is known only from Sweden (NIXON 1957) and the Czech Republic (MACEK 1989). It is a new species for Slovakia, Poland and Hungary.

### *Scorpioteleia luteipes* (Kieffer, 1910)

(Figs. 4, 10, 15, 20, 25)

*Miota luteipes* Kieffer, 1910: 689, ♀, ♂.
*Miota luteipes*: KIEFFER (1916): 585, 586.
*Scorpioteleia luteipes*: MASNER (1964): 130; JOHNSON (1992): 107.

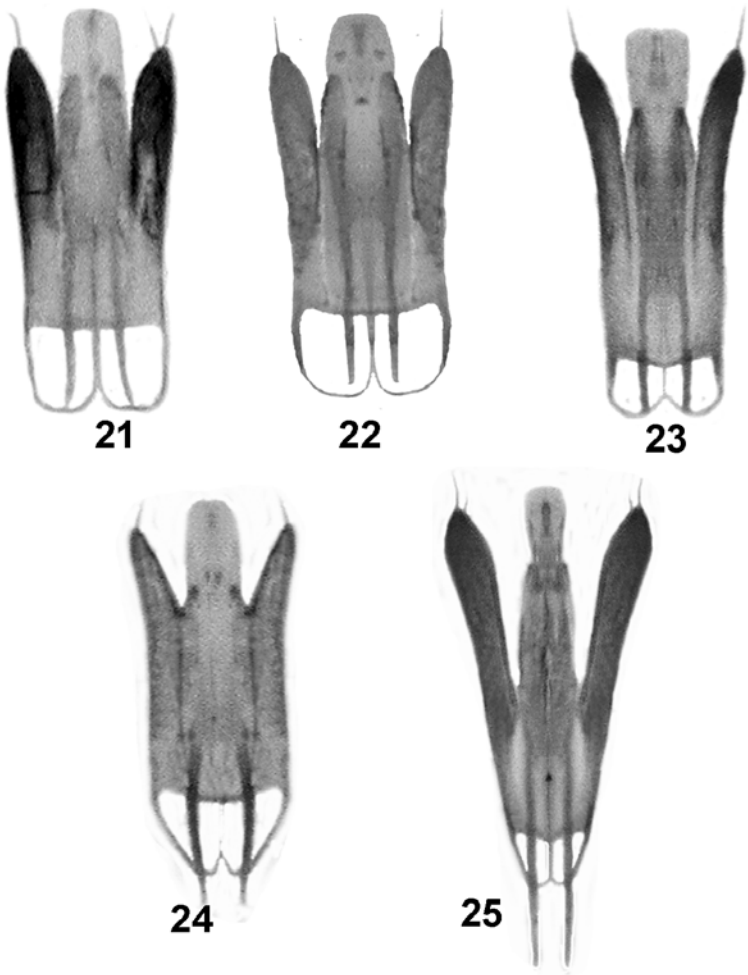
**Type locality.** Croatia, Gospić.
**Type material examined.** *Miota luteipes*: HOLOTYPE: ♂, 'Croatia, Gospic, Szinna lgt., Kieffer det.' (HNMH).
**Additional material examined. SLOVAKIA** occ.: Biele Karpaty Mts., Drietoma (7073), 10.viii.1995, 1 spec., Lukáš lgt.; Biele Karpaty Mts., Chocholanská dolina (valley) (7173), 1 spec., Lukáš lgt. SLOVAKIA centr.: Kremnické




Figs. 16-20. Wing venation (costal region of fore wing). 16 – *Scorpioteleia longepetiolata* (Thomson, 1859); 17 – *S. nixoni* sp. nov.; 18 – *S. compressa* (Kieffer, 1910); 19 – *S. cebes* Nixon, 1954; 20 – *S. luteipes* Kieffer, 1910. Scale = 0.8 mm.

vrchy Mts., Badínsky prales NR (8073), 5.viii.1985, J. Macek lgt., 1 spec. **HUNGARY:** Nagyvisnyó, Nagy-völgy, 8.ix.1982, J Papp lgt., 1 spec. **ALBANIA:** Bizë near Shëngjergji, 1400-1500 m a.s.l., 10.-15.vii.1961, Exp. DEI lgt., 1 spec. All J. Macek det. (NMPC).

**Diagnosis.** The largest (5-6 mm) of all *Scorpioteleia* species assigned to the *compressa* species group. It differs from *S. compressa* and *S. cebes* by the combination of the following characters: i) antennae of female shorter and thicker with preapical flagellomere at most twice as long as wide; ii) pubescence of antennae even, dense and very short; iii) radial cell wider;




Figs. 21-25. Male genitalia. 21 – *Scorpioteleia longepetiolata* (Thomson, 1859); 22 – *S. nixoni* sp. nov.; 23 – *S. compressa* (Kieffer, 1910); 24 – *S. cebes* Nixon, 1954; 25 – *S. luteipes* Kieffer, 1910. Scale = 0.35 mm

iv) petiole swollen in the middle and rugose; v) gaster stout and with pubescent ventral surface except distal part; vi) macrotergite at base with distinct medial furrow and large lateral depressions.

**Variability.** No apparent variation was ascertained in the material examined.

**Bionomics.** Hosts unknown; flight period from July to September.

**Distribution.** This species was previously known only from its type locality in Croatia (KIEFFER 1910). It is a new species for Slovakia, Hungary and Albania.

**Remark.** The species identity is based on the reexamination of the male type specimen preserved at HNMH. The female specimen mentioned by KIEFFER (1910) is lost.

## Acknowledgements

I am indebted to all curators who kindly provided types and further specimens of *Scorpioteleia* from their collections (see Material and Methods). This study was supported by the Ministry of Culture (grant no. MK 00002327201).

## References

ASHMEAD W. H. 1890: On the Hymenoptera of Colorado. *Bulletin of the Colorado Biological Association* **1**: 1-47.

ASHMEAD W. H. 1897: Descriptions of some new genera and species of Canadian Proctotrypidae. *Canadian Entomologist* **29**: 53-56.

FÖRSTER A. 1856: *Hymenopterologische Studien. II Heft. Chalcidiae und Proctotrupii*. Ernst ter Meer, Aachen, 152 pp.

HELLÉN W. 1964: Die Ismarinen und Belytinen Finnlands (Hymenoptera: Proctotrupoidea). *Fauna Fennica* **18**: 1 -68.

JOHNSON F. J. 1992: Catalog of the world species of Proctotrupoidea, exclusive of Platygastridae (Hymenoptera). *Memoirs of the American Entomological Institute* **51**: 1-693.

KELLNER-PILLAUT S. 1958: Catalogue de quelques types d'Hyménoptères provenant de la collection de l'Abbé J. J. Kieffer. *Bulletin du Muséum National d'Histoire Naturelle* **2(30)**: 146-153.

KIEFFER J. J. 1910a: Proctotrypidae. Pp. 593-752. In: ANDRÉ E. (ed.): *Species des Hyménoptères d'Europe et d'Algérie. Vol. 10*. Librairie Scientifique, A. Hermann & Fils, Paris, 1008 pp.

KIEFFER J. J. 1910b: Hymenoptera. Fam. Belytidae. In: WYTSMAN P. (ed.): *Genera Insectorum*, Bruxelles, **107**: 1-47.

KIEFFER J. J. 1916: *Diapriidae. Das Tierreich. Vol. 44*. Walter de Gruyter & Co., Berlin, 627 pp.

KOZLOV M. A. 1978: Nadsemeystvo Proctotrupoidea – proktotrupoidnye naezdniki. [Superfamily Proctotrupoidea – proctotrupoid wasps]. Pp. 538-664. In: MEDEVEDEV G. S. (ed.): *Opredelitel' nasekomykh evropeyskoy chasti SSSR. Tom II. Pereponchatokrylye – vtoraya chast'.* [Key to the insects of the European part of the Soviet Union. Vol. III. Hymenoptera. Part II.]. Nauka, Leningrad, 757 pp (in Russian).

MACEK J. 1989: Proctotrupoidea, Ceraphronoidea. Pp. 135-142. In: ŠEDIVÝ J. (ed.): Check list of Czechoslovak Insects III. (Hymenoptera). *Acta Faunistica Entomologica Musei Nationalis Pragae* **19**: 1-194.

MACEK J. 1995: Revision of the West Palaearctic Lyteba Th. (= Oxylabis auct.) (Hymenoptera: Proctotrupoidea, Diapriidae). *Folia Heyrovskyana* **3**: 29-39.

MACEK J. 1998: Revision of European species of Acropiesta (Hymenoptera: Diapriidae). *Folia Heyrovskyana* **6**: 21-42.

MASNER L. 1964: A comparison of some Nearctic and Palaearctic genera of Proctotrupoidea (Hymenoptera) with revisional notes. *Časopis Československé Společnosti Entomologické* **61**: 123-155.

MASNER L. 1991: Revision of Spilomicrus Westwood in America north of Mexico (Hymenoptera: Proctotrupoidea, Diapriidae). *Canadian Entomologist* **123**: 107-177.

MASNER L. & MUESEBECK C. F. W. 1968: The types of Proctotrupoidea (Hymenoptera) in the United States National Museum. *Bulletin of the United States National Museum* **270**: 1-143.

MUESEBECK C. F. W. & WALKLEY L. M. 1951: Superfamily Proctotrupoidea. Pp. 655-718. In: MUESEBECK C. F. W., KROMBEIN K. V. & TOWNES H. K. (eds.): *Hymenoptera of America North of Mexico – Synoptic Catalog.* U.S. Department of Agriculture Monograph No. 2. United States Government Printing Office, Washington, 1420 pp.

MUESEBECK C. F. W. & WALKLEY L. M. 1956: Type species of the genera and subgenera of parasitic wasps comprising the superfamily Proctotrupoidea (order Hymenoptera). *Proceedings of the United States National Museum* **105**: 319-419.

NIXON G. E. J. 1957: Hymenoptera, Proctotrupoidea, Diapriidae, subfamily Belytinae. *Handbooks for the Identification of British Insects* **8(3)**: 1-107.

PRUNER L. & MÍKA P. 1996: Seznam obcí a jejich částí v České republice s čísly mapových polí pro síťové mapování fauny. (List of settlements in the Czech Republic with associated map field codes for faunistic grid mapping system). *Klapalekiana* **32(Suppl.)**: 1-115 (in Czech, English abstract).

THOMSON C. G. 1859: Skandinaviens Proctotruper. II. Belytini. *Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar* **15**: 155-180.

WALL I. 1967: Die Ismarinae und Belytinae der Schweiz. *Entomologische Abhandlungen Staatliches Museum für Tierkunde in Dresden* **35**: 123-265.