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Taxonomic and morphological notes on some Trichogrammatidae (Hymenoptera: Chalcidoidea)

Abstract: Typical material of species belonging to the genera *Brachyufens* Viggiani, *Burksiella* De Santis, *Oligosita* Walker, and *Pseudoligosita* Girault has been examined. The genus *Brachyufens*, according to the genitalia characters, is placed in the tribe Trichogrammatini (Trichogrammatidae, Trichogrammatinae). For the species *Haeckeliania brevimarginata* Viggiani, the holotype is indicated to validate the species (Viggiani, 2019). *Oligosita engelharti* Kryger, 1918, is proposed as a junior synonym of *Oligosita impudica* Kryger, 1918, **n.syn.**, and *Pseudoligosita obscura* Fursov (2007), synonym of *P. aceses* (Walker), **n. syn.**. The new name *Pintoana* is proposed to replace the genus *Pintoa* Viggiani (1989), a junior homonym of the mollusk *Pintoa* Bourguignat, 1890. For several species of *Oligosita* and *Pseudoligosita* some taxonomic and morphological notes are given.

Riassunto: Note tassonomiche e morfologiche su alcuni Trichogrammatidae (Hymenoptera: Chalcidoidea).

È stato esaminato il materiale tipico di specie dei generi *Brachyufens* Viggiani, *Burksiella* De Santis, *Oligosita* Walker, and *Pseudoligosita* Girault. Il genere *Brachyufens*, in base ai caratteri dell'organo copulatore, è stato assegnato alla tribù Trichogrammatini (Trichogrammatidae, Trichogrammatinae). È stato indicato il tipo di *Haeckeliania brevimarginata* Viggiani per validare la specie (Viggiani, 2019). *Oligosita engelharti* Kryger, 1918 è proposta quale sinonimo di *Oligosita impudica* Kryger, 1918, **n.syn.** e *Pseudoligosita obscura* Fursov (2007) sinonim of *P. aceses* (Walker), **n. syn.** Il nuovo nome *Pintoana* è proposto per sostituire *Pintoa* Viggiani (1989), omonimo del mollusco *Pintoa* Bourguignat, 1890. Sono infine fornite note tassonomiche e morfologiche per diverse specie di *Oligosita* e *Pseudoligosita*.

Key words: egg-parasitoids, synonymies, new names, figures.

The taxonomy of the Trichogrammatidae was improved a lot with the contribution of several authors (Pinto, 2006; Viggiani, 2024), but several genera and species remain uncertain. In the past years, the author had the opportunity to study, in several entomological institutions, typical specimens of Trichogrammatidae (*Ufens osborni* Dozier: United State natural Museum of Washington; *Ufens beneficus* Dozier, female holotype and male, United State natural Museum of Washington; *Ufens ormenidis* Dozier, type material, United State natural Museum of Washington; *Haeckeliania brevimarginata* Viggiani, holotype, Università degli Studi di Napoli "Federico II", Dipartimento di Agraria, Laboratorio di Lotta biologica, Portici; *Oligosita engelharti* Kryger, type, Zoological Museum, Copenhagen; *Oligosita subfasciata* Westwood, Kryger collection, Zoological Museum, Copenhagen; *Oligosita szelenyi* Nowicki, type, Nowicki collection, Università degli Studi di Napoli "Federico II", Dipartimento di Agraria, Laboratorio di Lotta biologica, Portici; *Pseudoligosita kusaiensis* Doult, type, United States National Museum, Washington; *Oligosita paphlagonica* Nowicki, type, Nowicki collection, Uni-

versità degli Studi di Napoli "Federico II", Dipartimento di Agraria, Laboratorio di Lotta biologica, Portici; *Oligosita schlicki* Kryger, specimens of Kryger collection, Museum of Zoology, Copenhagen) mounted on slide. In the present paper, some taxonomic and morphological notes, with original illustrations, are given that may help their correct identification.

Genus *Brachyufens* Viggiani, 1968

Brachyufens Viggiani, in Doult and Viggiani, 1968. Proc. Cal. Ac. Sc., 35 (fourth ser.): 487, 566.

Brachyufens osborni (Dozier)

Ufens osborni Dozier, 1932. Proc. Ent. Soc. Wash. 14: 36.

Brachyufens osborni (Dozier), Doult and Viggiani, 1968. Proc. Cal. Ac. Sc., 35 (fourth ser.): 566.

A new diagnosis of this monotypic genus, referred to as female and male of *B. osborni* (Dozier) was given by Pinto (2006). About the male genitalia the author wrote: "genitalia similar to *Haeckeliania*". Here, the illustration of the male genitalia of *B. os-*

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borni (Fig. 1), drawn on specimens received years ago from the United States Natural Museum of Washington, is added. Genitalia are of chalcidoid type, with phallobase elongate, 4.6× as long as wide, dorsally opened, with long parameres with a distal seta, as long as the distal width of aedeagus; volsellae about as long as parameres, with a terminal small digital spine; aedeagus body longer than its bacilliform apodemes (11:12). The described characters of the male genitalia place the genus *Brachyufens* in the subfamily Trichogrammatinae, tribe Trichogrammatini (Viggiani, 1971).

Genus *Burksiella* De Santis, 1957

Burksiella De Santis 1957. Notas del Museo de la Plata, Buenos Aires (Zoologia) 19 (166): 33-72.

Pinto (2006) renewed the status of the genus, previously synonymized under *Zagella* Girault by Doutt & Viggiani (1968), and gave the “easiest means of separation”: In *Burksiella*, the stigmal vein usually is constricted basally and always is projected apically beyond the end of the marginal vein. In *Zagella*, on the other end, the stigmal vein is not constricted and is perpendicular to the marginal vein rather than projecting apically. The genus includes 12 species (UCD Community, 2026), which show several variations in veins and male genitalia shape, suggesting a difficult use of Pinto’s characters for the discrimination between *Burksiella* and *Zagella*.

Burksiella benefica (Dozier)

Ufens beneficus Dozier 1932. Proc. Ent. Soc. Wash. 34: 33.

Burksiella benefica (Dozier), Pinto, 2006. J. Hym. Res. 15: 92.

The species was described with some details, but without illustrations. According to Pinto (2006), *B. beneficus* represents a group characterized by sexes that are highly dimorphic. I have examined the holotype (female) and the single male of the original material. Female maxillary palp (Fig. 2) distally with 2 setae and 1 setiform sensillum, antenna (Fig. 3) with 2 anelli, first funicular segment small and annular with a small seta and a peg sensillum (Fig. 4), second segment globular, large, with 5 transverse, placoid sensilla and on the distal margin some peg sensilla, club 3-segmented, not closely appressed to the preceding funicular segment. Male head below the antennal toruli (Fig. 5) with several short sensillar setae;

genitalia (Fig. 6) simple, a unique body, 3× as long as wide, with dorsal aperture 0.4× of total body length, same type as in *B. diana* Pinto (2006), but shorter and wider.

Burksiella ormenidis (Dozier)

Ufens ormenidis Dozier 1932. Proc. Ent. Soc. Wash. 34: 35.

Burksiella ormenidis (Dozier), Pinto, 2006. J. Hym. Res. 15: 92.

Originally described with some details, but without illustrations. The type material was examined. Antenna of the female (Fig. 7) with the second funicular segment transverse with only 2 placoid sensilla and rather appressed to the 3-segmented club. Fore wing (Fig. 8) 1.6× as long as wide, stigmal vein not constrict at base, disc moderately setose with some setae arranged in rows, fringe very short. Male antenna (Fig. 9) with a club shorter and larger than in the female and fewer placoid sensilla on each segment. Genitalia (Fig. 10) trunk-conic, gradually narrowed to apex, with aedeagal apodemes.

Genus *Haeckeliana* Girault, 1912

Haeckeliana Girault, 1912. Mem. Queensland Museum 1: 97-98.

Haeckeliana brevimarginata Viggiani

Haeckeliana brevimarginata Viggiani. Fragmenta entomologica 2019, 58: 166.

The holotype, unfortunately, was not fixed in the original description (Viggiani, 2019), and as for art. 16 of the Code of Zoological Nomenclature, the name is unavailable. In the present corrigendum, the holotype is fixed as follows: holotype ♀ (slide), French Guyana: Kaw Mountains, Patawa, 4° 35.562’N, 52° 12.425’W, 20.xi-11.xii.2006, K. Sarv lgt.

Genus *Oligosita* Walker, 1851

Oligosita Walker, 1851. Ann. Mag. Nat. Hist. 7: 212-213.

The genus includes about 100 species worldwide, about 10 are recorded from Europe, some of them remain inadequately characterized.

Oligosita impudica Kryger

Oligosita impudica Kryger, 1918. Ent. Med. 12: 317, 323.

Oligosita engelharti Kryger, 1918. Ent. Med. 12: 317, 327. **n. syn.**

According to Kryger (1918), the two species differ for “forewing with a little substigmatal spot” in *O. engelharti* and “forewing with a larger substigmatal spot” in *O. impudica*. I have examined Kryger material of both species: the type female of *O. engelharti*, the only known specimen and 2 females and 2 males of *O. impudica*. In my opinion the differences between the two species reported by Kryger are untenable, consequently I propose *O. engelharti* as junior synonym of *O. impudica*. The following illustrations of female antenna, fore wing and male genitalia (Figs. 11-13) will clarify the identity of the species.

***Oligosita subfasciata* Westwood**

Oligosita subfasciata Westwood, 1879. Trans. Linn. Soc. London (Zool.) 2: 591.

Oligosita subfasciata, Kryger, 1918. Entom. Medd. 12 (2): 317, 320.

I have examined several specimens of the Kryger material and I can confirm that the species belongs to the genus *Oligosita* group *collina*. The genitalia of the species (Fig. 14), undescribed, are tubular, rather short, 4× as long as wide.

***Oligosita szelenyi* Nowicki**

Oligosita szelenyi Nowicki. 1940. Zeit. Angew. Ent., 26: 645.

The species was described in details, but without illustrations. I have examined the type of the species and here are reported the figures of the female antenna (Fig. 15) and fore wing (Fig. 16).

Genus *Pintoana* Viggiani, nom. nov.

Recently, I was kindly informed that the genus *Pintoa* Viggiani (Viggiani, 1989) was a junior homonym of a mollusk. In fact, Bourguignat (1890) designed *Pintoa* as a subgenus of *Achatina*. For this reason, I propose here *Pintoana* as a replacement name of *Pintoa* and consequently the new combination *Pintoananeartica* (Viggiani) **n. comb.**

Genus *Pseudoligosita* Girault, 1913

Pseudoligosita Girault, 1913. Mem. Queensland Museum 2: 104.

Pseudoligosita, Pinto and Viggiani, 2004. J. Hym. Res. 13(2): 288.

***Pseudoligosita acestes* (Walker), n. comb.**

Pteroptrix acestes Walker, 1839. Monogr. Chalcid. 1: 19.

Oligosita obscura Fursov, 2007. Family Trichogrammatidae. In book: Lelei A.S. (Eds.) “Identification Keys to insects of the Far East of Russia in VI volumes”. Vladivostok: 977. **N. syn.**

The first illustrations (female antenna and fore wing) concerning this species are reported by Doutt and Viggiani (1968). The new species *O. obscura* Fursov (2007) shows the typical wing of *O. acestes* 1839 and here is proposed as junior synonym.

***Pseudoligosita kusaiensis* Doutt**

Oligosita kusaiensis Doutt, 1955. Insects of Micronesia 19: 5.

Pseudoligosita kusaiensis (Doutt), Pinto and Viggiani, 2004. J. Hym. Res. 13: 289.

The type of the specie was examined. The illustrations (Figs. 17 and 18) of the female antenna and fore wing clarify some specific characters.

***Pseudoligosita paphlagonica* (Nowicki)**

Oligosita paphlagonica Nowicki, 1935. Zeit. angew. Ent. 21: 590.

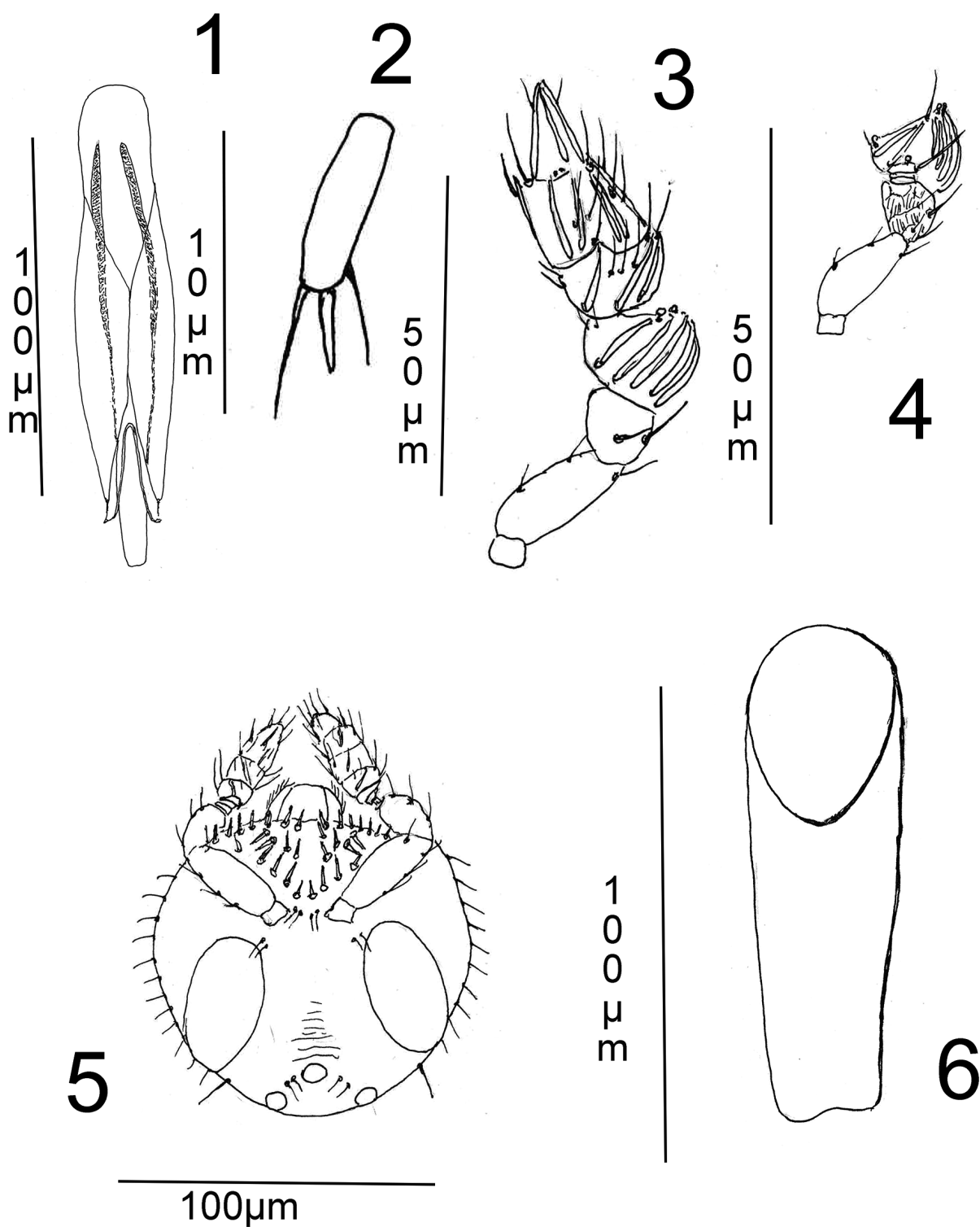
Pseudoligosita paphlagonica (Nowicki), Pinto and Viggiani, 2004. J. Hym. Res. 13: 289.

The species was described in detail, but without illustrations, on a single male. I have remounted this specimen in the Nowicki collection, preserved in special card slide (Viggiani, 2011), on normal slide and taken the figures of antenna, fore wing and genitalia (Figs. 19-21). Clearly the species should be assigned to the genus *Pseudoligosita*. Genitalia (Fig. 21) are simple, curved, and basally with apodemes.

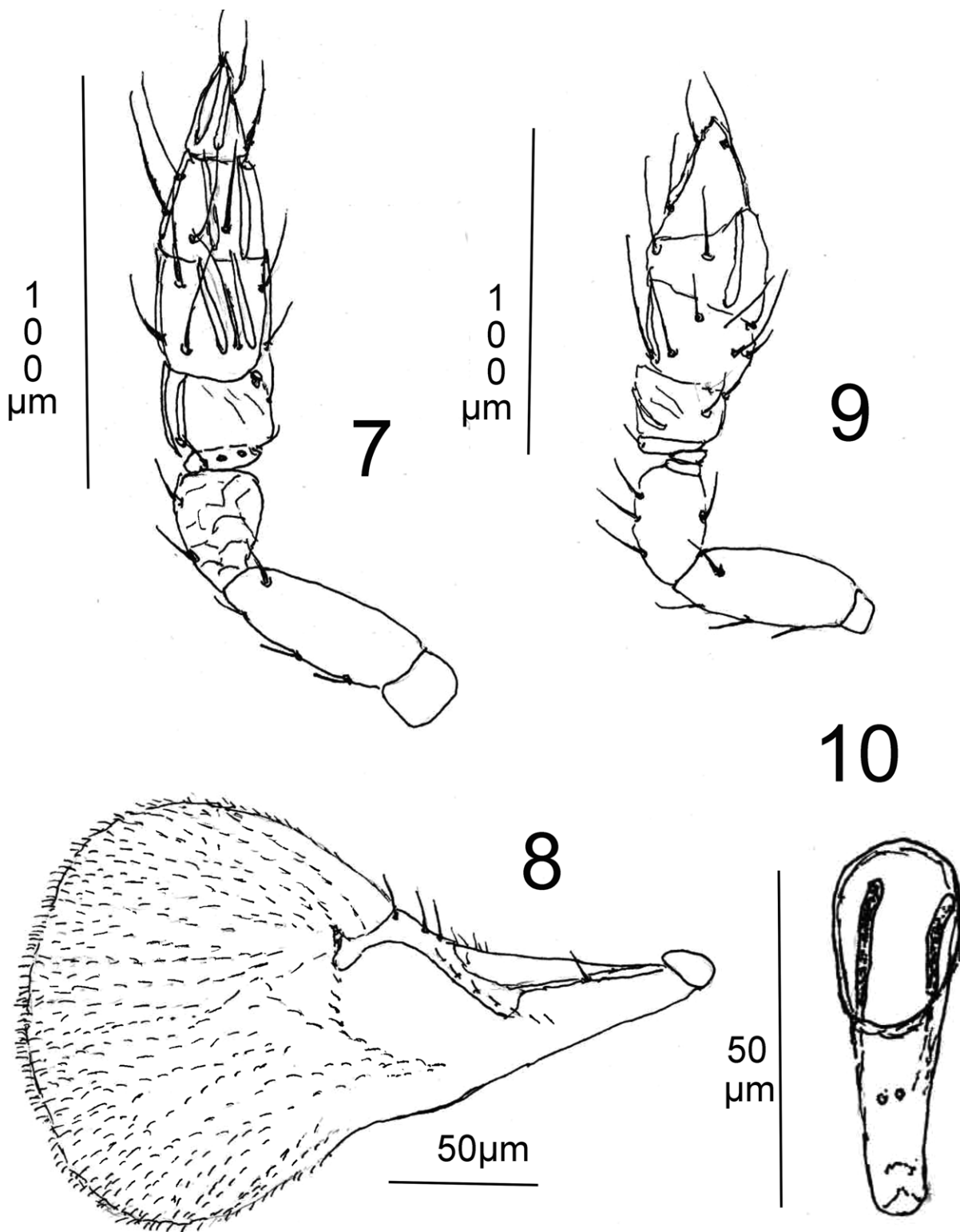
***Pseudoligosita schlicki* (Kryger)**

Oligosita schlicki Kryger, 1918. Ent. Medd. 12: 305, 307.

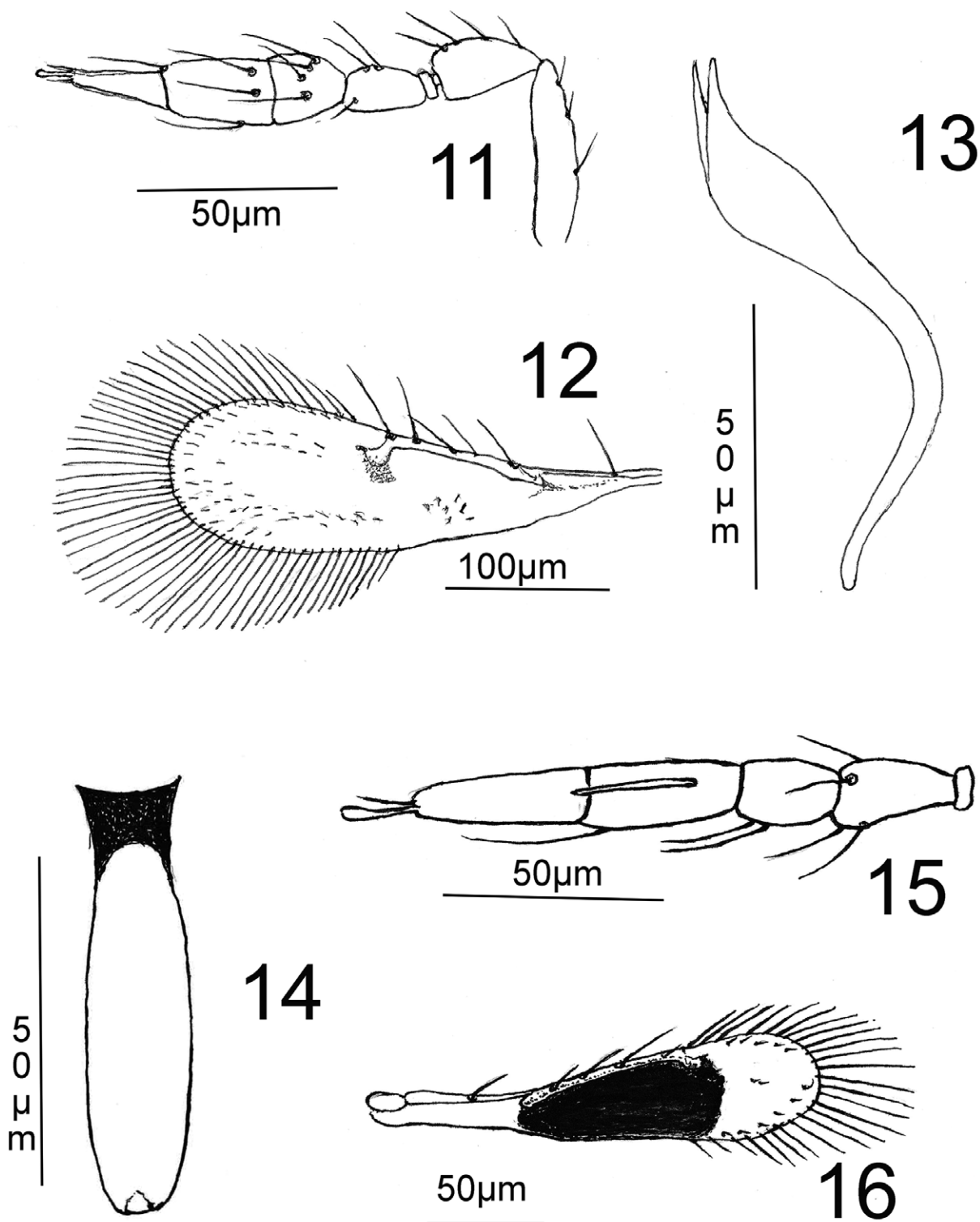
The species was described and illustrated in detail by the author. I have examined 3 females and 1 male of the Kryger’s collection and taken the following illustrations of female fore wing, and male genitalia (Figs. 22 and 23). The last (Fig. 23) is particularly long, 15x as long as wide, basally with a semicircular sclerification and without apodemes.



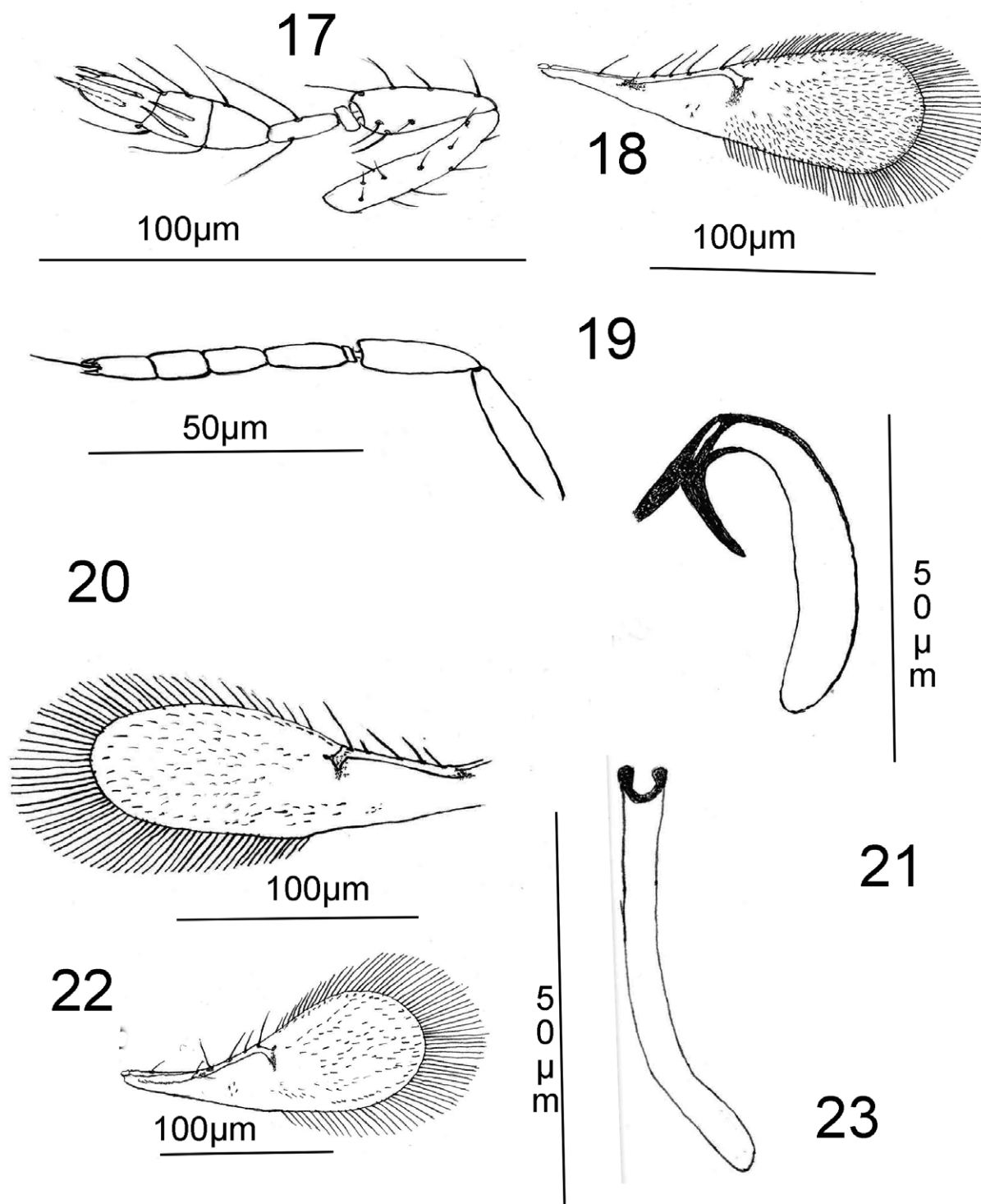
Figs. 1-6. 1) *Brachyufens osborni* (Dozier), male genitalia; 2) *Burksiella benefica* (Dozier), maxillary palpus; 3) female antenna; 4) particular, from scape to funicular segments; 5) male head; 6) male genitalia.



Figs. 7-10. 7) *Burksiella ormenidis* (Dozier), female antenna; 8) fore wing; 9) male antenna; 10) male genitalia.



Figs. 11-16. 11) *Oligosita impudica* Kryger, female antenna; 12) fore wing; 13) male genitalia; 14) *Oligosita subfasciata* Westwood, male genitalia; 15) *Oligosita szelenyi* Nowicki, female antenna; 16) fore wing.



Figs. 17-23. 17) *Pseudoligosita kusaiensis* (Doutt), Female antenna; 18) fore wing; 19) *Pseudoligosita paphlagonica* (Nowicki), female antenna; 20) fore wing; 21) male genitalia; 22) *Pseudoligosita schlicki* (Kryger), fore wing; 23) male genitalia.

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