

Paphanus drechseli gen. nov & spec. nov. (Hymenoptera: Braconidae: Sigalphinae: Pselaphanini) from Paraguay

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A new genus (*Paphanus* gen. nov.) from Paraguay (Hymenoptera: Braconidae: Sigalphinae: Pselaphanini; type species: *Paraphanus drechseli* spec. nov.) is described and illustrated.

Introduction

Among material from Paraguay collected by Mr U. Drechsel (www.pybio.org) a remarkable specimen was found of the South American tribe Pselaphanini van Achterberg, 1985. Originally described as a subfamily (van Achterberg, 1985), it is now considered a basal tribe of the subfamily Sigalphinae Haliday, 1833, after analysis of the nuclear 28S marker (Quicke et al., 2008). Specimens of this tribe are rarely collected and up to now the only known species is *Pselaphanus trogoidea* Szépliget, 1902, from Brazil and Suriname. The specimen from Paraguay to a new genus which is described below. The biology is unknown but members of the sistergroup (the tribe Sigalphini) are parasitoids of larvae of Noctuidae (van Achterberg & Austin, 1992).

For the recognition of the tribe Pselaphanini van Achterberg, see van Achterberg (1993, 1997; as Pselaphaninae) and for the terminology used in this paper, see van Achterberg (1988). The holotype is deposited in the Nationaal Natuurhistorisch Museum, Leiden (PMNH).

Descriptions

Key to genera of the tribe Pselaphanini van Achterberg

1. Prepectal carina absent (fig. 23); first metasomal tergite sessile (fig. 17); first subdiscal cell of fore wing wide (fig. 14); vein a of fore wing largely absent (fig. 14); scutellum without distinct medio-posterior depressions (fig. 16); second metasomal tergite parallel-sided or nearly so (fig. 17); metapleuron smooth (fig. 23) *Pselaphanus* Szépliget, 1902
- Prepectal carina present (fig. 13); first tergite subpetiolate (fig. 6); first subdiscal cell of fore wing moderately narrow (fig. 1); vein a of fore wing present (fig. 1); scutellum with distinct medio-posterior depressions (fig. 12); second tergite widened posteriorly (fig. 6); metapleuron reticulate (fig. 13) *Paphanus* gen. nov.

***Paphanus* gen. nov.**

Type species and only known species: *Paphanus drechseli* spec. nov.

Etymology. — From a combination of “Paraguay” and of the generic name *Pselaphanus* Szépligeti, 1902, because it is related and it is only known from Paraguay. Gender: masculine.

Diagnosis. — Head distinctly narrowed ventrally (fig. 4); malar suture shallowly impressed (fig. 4); prepectal carina present (fig. 13); metapleuron reticulate (fig. 13); notauli complete, narrow (fig. 10); scutellum with distinct medio-posterior depressions (fig. 12); first subdiscal cell of fore wing moderately narrow (fig. 1); vein a of fore wing and vein r of hind wing present (fig. 1); fore tibia robust (fig. 8); tarsal claws with large lobe (fig. 7); first metasomal tergite subpetiolate and without apical depressions (fig. 6); second tergite widened posteriorly, second and third tergites with sharp lateral crease and about of equal length (fig. 6).

Paphanus drechseli spec. nov.

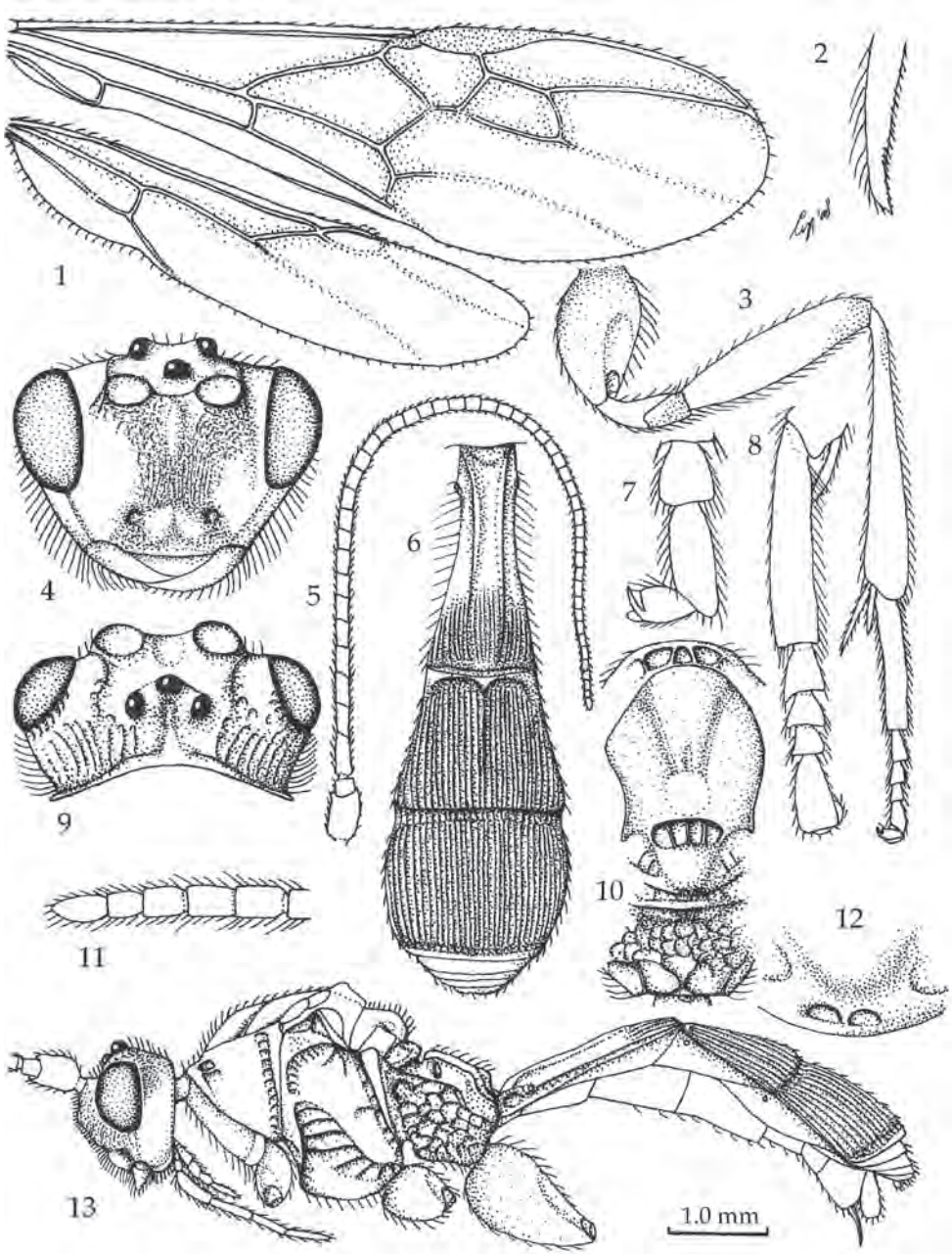
(figs 1-13)

Material. — Holotype, ♀ (RMNH), “Paraguay, dept. Kanindeyu, Carapa, 1-10.xii.2007, S24°24' W54°23', leg. U. Drechsel”.

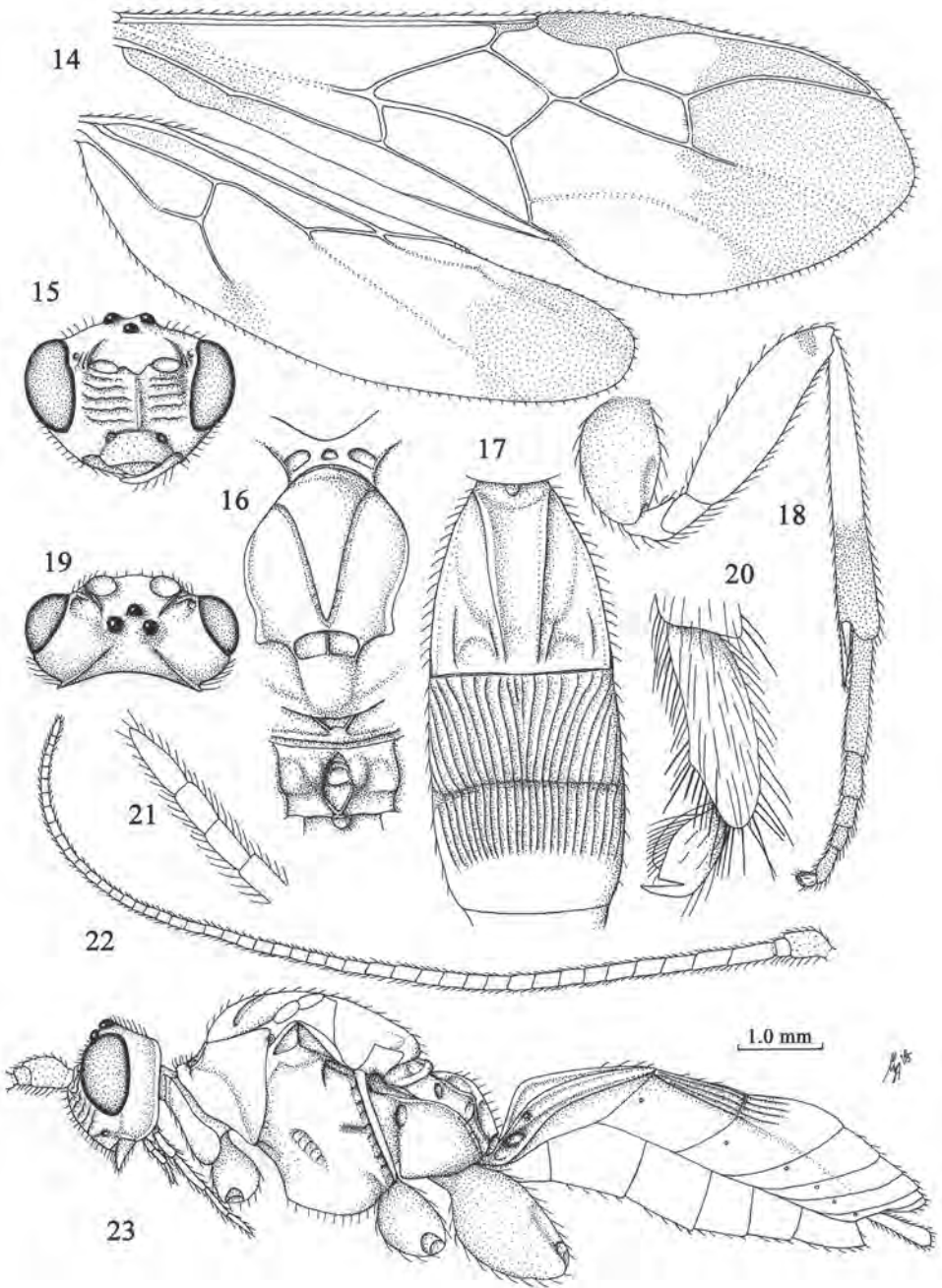
Holotype, ♀, length of body 8.9 mm, of fore wing 7.9 mm; body (especially head) with long and dense yellowish setosity.

Head. — Antenna with 49 segments, strongly narrowed apically (fig. 5); length of third segment 1.3 times fourth segment, length of third, fourth and penultimate segments 3.6, 2.7 and 1.5 times their width, respectively; length of maxillary palp 1.3 times height of head; in dorsal view length of eye 1.3 times length of temple (fig. 9); temples linearly narrowed behind eyes, rugulose dorsally and remainder smooth; OOL:diameter of ocellus:POL = 11:4:9; frons largely smooth and flat medially (except for shallow depression between antennal sockets), sublaterally with a row of large punctures (fig. 9) and largely setose; vertex coarsely rugose but medially depressed and largely smooth; face medially densely rugulose and largely smooth laterally (fig. 4), unevenly convex medially and rather flat laterally; clypeus flattened, largely smooth with some punctures laterally and its ventral margin straight and thin; occipital flange rather large and lamelliform; occipital carina widely interrupted medio-dorsally (fig. 9); malar suture obsolescent (figs 4, 13); length of malar space 1.4 times basal width of mandible; mandible strongly twisted apically.

Mesosoma. — Length of mesosoma 1.2 times its height; dorsal pronope and pair of subpronope deep (fig. 10); side of pronotum smooth, but crenulate posteriorly; propleuron flattened, smooth; mesosternal sulcus wide and shallow; prepectal carina coarse and coarsely crenulate behind it (fig. 13) and reaching precoxal sulcus; epicnemial area crenulate; precoxal sulcus deep, complete and very coarsely costate; remainder of mesopleuron smooth; pleural sulcus distinctly crenulate; metapleuron coarsely reticulate-rugose; notauli complete, moderately wide and smooth; mesoscutum largely smooth, sparsely punctulate and with a shallow elongate depression medio-posteriorly; scutellar sulcus deep, with three carinae; scutellum convex and smooth, with pair of medio-



Figs 1-13, *Paphanus drechseli* gen. nov. & spec. nov., ♀, holotype. 1, wings; 2, apex of inner hind tibial spur; 3, hind leg; 4, head, anterior aspect; 5, antenna; 6, first-third metasomal tergites, dorsal aspect; 7, inner hind claw; 8, fore tarsus, dorsal aspect; 9, head, dorsal aspect; 10, mesosoma, dorsal aspect; 11, apex of antenna; 12, apex of scutellum, dorsal aspect; 13, habitus, lateral aspect. 1, 3, 5, 13: scale-line (= 1.0 ×); 2, 8, 11: 5.0 ×; 4, 9: 1.6 ×; 6, 10: 1.1 ×; 7, 12: 3.3 ×.



Figs 14-23, *Pselaphanus trogoides* Szépligeti, ♀, Suriname, Zanderij. 14, wings; 15, head, anterior aspect; 16, mesosoma, dorsal aspect; 17, first-third metasomal tergites, dorsal aspect; 18, hind leg; 19, head, dorsal aspect; 20, outer hind claw; 21, apex of antenna; 22, antenna; 23, habitus, lateral aspect. 14, 18, 22, 23: scale-line (= 1.0 ×); 20, 21: 5.0 ×; 15-17, 19: 1.3 ×.

posterior depressions (fig. 12); side of scutellum with few crenulae; metanotum somewhat protruding medio-posteriorly (fig. 13), with a short median carina; propodeum coarsely rugose dorsally and largely smooth posteriorly except for carinae (fig. 10), median carina absent, but with irregular transverse lamelliform carina subanteriorly and area in front it deeply depressed.

Wings.— Fore wing: $r:3\text{-SR}:SR1 = 4:11:38$; basal cell glabrous near 1-M; 2A complete, connected to posterior vein (fig. 1); 1-SR+M and SR1 straight; 1-CU1:2-CU1 = 1:13; 2-SR:3-SR:r-m = 8:11:9. Hind wing: weak r at basal quarter of marginal cell and SR1 slightly curved basally (fig. 1); subbasal cell partly glabrous; 2-SC+R minute (fig. 1); with 3 hamuli; 1-M slightly curved; M+CU:1-M = 7:6.

Legs.— Hind coxa sparsely punctulate; length of femur, tibia and basitarsus of hind leg 4.0, 6.8 and 5.0 times their width, respectively; fore femur robust; length of hind tibial spurs 0.2 and 0.3 times hind basitarsus, inner hind spur with short setae ventrally (fig. 2); all tarsi robust (fig. 8); hind tibia and tarsus very densely setose (fig. 3).

Metasoma.— Length of first tergite 2.1 times its apical width, its sides rather concave, its surface smooth but posterior third costate (fig. 6), no depressions apically, with complete strongly protruding dorsal carinae and no median carina between dorsal carinae; laterope medium-sized; second tergite depressed near median carina anteriorly and coarsely costate, widened posteriorly (fig. 6); second metasomal suture distinctly crenulate, medium-sized (fig. 6); third tergite less regularly and finer costate than second tergite, narrowly smooth posteriorly and with transverse crenulate groove in front of it (fig. 6), tergite with convex sides and about as long as second tergite, in lateral view slightly convex (fig. 13); length of ovipositor sheath 0.04 times length of fore wing; ovipositor sheath wide, obtuse and nearly parallel-sided (fig. 13).

Colour.— Brownish-yellow; head dorsally, occiput, mesosternum, mesopleuron ventrally (up to precoxal sulcus), mesoscutum (except medio-posteriorly and notaulic area), transverse band near basal 0.6 of first tergite, second tergite (except basal 0.2 and narrow apical rim); third tergite (except narrow apical rim), fourth-seventh tergites and ovipositor sheath black; palpi (except brown apical segment), antenna (except pedicellus and apically darkened scapus), scutellum submedially, propleuron anteriorly and posteriorly, basal patch of fore coxa, patch of hind coxa, base of hind coxa narrowly, hind trochantellus, hind femur apically, subbasal dorsal patch of hind tibia and apical half of metasoma ventrally dark brown; pterostigma and vein yellow or yellowish-brown; wing membrane infusate near veins, greyish apically and remainder of membrane subhyaline.

Distribution.— Paraguay.

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