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A revision of the bee genus *Tapinotaspis* Holmberg (Hymenoptera: Apidae, Tapinotaspidini)

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Abstract

A revision of the tapinotaspidine oil-collecting bees of the genus *Tapinotaspis* Holmberg is presented. These bees occur in South America, from northern Patagonia to northeastern Brazil. The genus is characterized by the peculiar oil-collecting structures of its species: an elongate middle tarsus with dense brushes of hairs, and a contorted hind tibial spur. Four species are recognized, two of which are described as new: *Tapinotaspis nordestina* sp. n. and *T. ogloblini* sp. n. A key to the species, descriptions and illustrations are provided.

Introduction

Tapinotaspis is a genus of oil-collecting bees of the tribe Tapinotaspidini. It is restricted to South America, with species distributed from northern Patagonia in Argentina to northeastern Brazil. The scope of the genus was restricted by Roig-Alsina (1997) to include only two described species, *T. chalybaea* (Friese) and *T. latitarsis* (Friese). Two new species are described in the present contribution.

Bees of the genus *Tapinotaspis* are characterized by their peculiar oil-collecting structures. The middle leg has an elongate tarsus bearing dense lateral and dorsal brushes of hairs (Neff & Simpson 1981, Fig. 41; Cocucci et al. 2000, Fig. 12A-B,D; Machado et al. 2002, Fig. 3C-D). This elongate middle leg is present in both sexes. The hind tibial spur, besides being strongly pectinate, is contorted forming a specialized organ which is used by the ♀ to squeeze out the oil collected by the middle leg, but such a contorted spur is also present in the ♂ (Roig Alsina 1997, Figs. 19-20; Cocucci et al. 2000, Fig. 12C,E). The oil-collecting behavior is known in detail for *T. chalybaea* (Cocucci 1991), and also for *T. nordestina* (Machado et al. 2002). The structures for oil collection are similar in the four known species, differing only in details.

The study of oil-producing flowers and their visiting oil-collecting bees was started by Vogel (1974), although in his monograph he did not study any species of *Tapinotaspis*; the species mentioned as *Tapinotaspis* in this work actually belong to *Chalepogenus* (Roig- Alsina 1999). The first account for a species of *Tapinotaspis* is that of Neff & Simpson, who studied the morphology of the oil-collecting apparatus of *T. chalybaea* (Neff & Simpson 1981, Figs. 40-41). Reviews of the relationships between oil flowers and their bees have been presented by Buchmann (1987), Vogel (1988), and Cocucci et al. (2000).

Species of *Tapinotaspis* are known to collect oils from flowers of three different plant families. *Tapinotaspis chalybaea* gathers oils from *Nierembergia* (Solanaceae) (Cocucci 1991), *T. ogloblini* from *Sisyrinchium* (Iridaceae) (Cocucci et al. 2000, as *T.* cfr. *latitarsis*), and *T. nordestina* from *Angelonia* (Scrophulariaceae) (Machado et al. 2002).

The two species previously included in *Tapinotaspis*, *T. chalybaea* and *T. latitarsis*, besides differing in size and appearance, also differ in several features that gave rise to some doubts as to the correct inclusion in the genus of the smaller species of the two, *T. latitarsis* (Roig-Alsina 1997). The discovery of *T. nordestina* helps to better understand the variation of several features in the genus. Some such features are the lateral carina of the propleuron, the length of the flagellum of the ♂, the small sclerite lateral to the subligular process of the labium, the lamellate lower point of the internal longitudinal ridge of the metapostnotum, the lengthening of the paraglossa, and the size of the ♀ first flagellomere. The new species *T. nordestina* lacks

a propleural carina and its ♂ has a short flagellum as does *T. latitarsis*, but shares with *T. chalybaea* the two structures mentioned next in the above list. For the last two characters mentioned, length of the paraglossa and length of the ♀ first flagellomere, *T. nordestina* presents an intermediate condition, bridging the differences observed in *T. chalybaea* and *T. latitarsis*.

Tapinotaspis nordestina presents some features which broaden the variation previously known for *Tapinotaspis*. This is the case of the very short jugal lobe of the hind wing, as short as that in species of *Tapinotaspoides*, and the short pubescence of the dorsum of the thorax. There is much variation in the type of vestiture among species of *Tapinotaspis*, as it also occurs among species of the genus *Chalepogenus* (Roig-Alsina 1999). While *T. chalybaea* and *T. latitarsis* have the scutum covered with long, erect hairs, *T. nordestina* has an extremely short, squamiform pubescence of velvety appearance, and *T. ogloblini* has a mixture of squamiform, decumbent, and long, erect hairs.

Material and Methods

Material studied, including types, was obtained from several collections. I am indebted to the following: American Museum of Natural History, New York, J. G. Rozen, Jr. (AMNH); Fundación e Instituto Miguel Lillo, Tucumán, M. V. Colomo (FIML); Institut für Botanik und Botanischer Garten der Universität Wien, Vienna, S. Vogel (Vogel); Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires (MACN); Museo de La Plata, La Plata, J. Schnack and A. Abrahamovich (MLP); Snow Entomological Museum, University of Kansas, Lawrence, C. D. Michener and R. Brooks (SEM); Zoologisches Museum, Humboldt-Universität, Berlin, F. Koch (ZMB); Zoologische Staatssammlung München, Munich, K. Schönitzer and J. Schuberth (ZSM). The acronyms are used below to indicate depositories of specimens.

For the description of the antenna, the term *condylar* surface is used. Since the antenna rotates when it is extended forwards, it is inappropriate to speak about dorsal and ventral or anterior and posterior sides. The condylar surface corresponds to that where the monocondylic articulation between scape and pedicel is located. In the descriptions, the metasomal terga (T) and sterna (S) are identified with Arabic numerals.

Key to species of *Tapinotaspis* Holmberg

Females

1 Head and thorax with pubescence mostly black. Metapostnotum covered with hairs. 2
– Head and thorax with all pubescence whitish. Metapostnotum glabrous and shiny (length of forewing 5.0-5.6 mm). 3

2 Metasomal terga with lateral patches of white hairs on T1-2 and T4. Wings hyaline with apex infuscated beyond closed cells. Larger species, length of forewing 7.5-8.5 mm. First flagellomere 1.8 times as long as its apical width. Fore coxa and trochanter with long hairs. ..... *T. chalybaea*
– Metasomal terga with pubescence black, without patches of white hairs. Wings dark, evenly infuscated. Smaller species, length of forewing 6.4-6.7 mm. First flagellomere 1.4 times as long as its apical width. Fore coxa and trochanter with spiniform setae (Fig. 1). ..... *T. nordestina*

3 Pubescence of scutum with two clearly differentiated strata: one of short, squamiform hairs (Fig. 3), and the other of long, finely branched hairs. Length of antennal scape shorter than length of sum of flagellomeres 3-6 (proportion 1 : 1.15-1.20). Second flagellomere at least in part orange. .... *T. ogloblini*
– Scutum with medium to long-sized finely branched hairs, without short squamiform hairs. Length of antennal scape subequal to length of sum of flagellomeres 3-6 (proportion 1 : 1.0-1.08). Second flagellomere black. ..... *T. latitarsis*

Males

1 Pubescence of hind tibia and tarsus black. At least last flagellomere white to ivory on one side. S6 without preapical projections. 2
– Pubescence of hind tibia and tarsus whitish. Last flagellomere brownish to black. S6 with conspicuous preapical lateral projection (Figs. 7, 11). 3

2 Clypeus black. Wings dark, evenly infuscated. Flagellum not elongate, second flagellomere shorter than its apical width (proportion 0.75:1). Last flagellomere with a white spot. ..... *T. nordestina*
– Clypeus yellow. Wings infuscated only beyond closed cells. Flagellum elongate, second flagellomere twice as long as its apical width (proportion 2:1). All flagellomeres with an ivory stripe. ..... *T. chalybaea*

3 Clypeus black. Second flagellomere as long as its apical width. ..... *T. latitarsis*
– Clypeus yellow. Second flagellomere 1.4 times as long as its apical width. ..... *T. ogloblini*

Tapinotaspis chalybaea (Friese)

Exomalopsis chalybaea Friese, 1899: 267. Lectotype ♀, Brasil, Pará, 1890, Schulze (ZMB, designated by Roig-Alsina, 1997).
Tapinotaspis chacabucensis Holmberg, 1903: 415. Lectotype ♂, Argentina, Buenos Aires, Chacabuco (MACN, designated by Roig-Alsina, 1997). Synonymized by Moure, 1948: 335.
Exomalopsis longicornis Friese, 1906: 170. Holotype ♂, Argentina, Córdoba, Stempelmann (ZMB, examined). Synonymized with *T. chacabucensis* by Brethes, 1910: 290.
Tapinotaspis chalybaea: Moure, 1948: 335. Michener & Moure, 1957: 422-424, Figs. 37-39; Neff & Simpson, 1981: 112-113, Figs. 40-41; Simpson & Neff, 1981: 316, Fig. 8; Cocucci, 1991: 23-28, Figs. 4A-C, 5. Roig Alsina, 1997: 17, Figs. 19-20. Michener, 2000: 672. Cocucci et al., 2000: 64, 69-70, Fig. 12A-F.

Moure (1948) gave a detailed synonymy of the early citations of this species, which is not repeated here. The only missing citation which I am aware of is that of Bertoni & Schrottky (1910), who reported a ♂ from the province of Córdoba, Argentina, and included the genus among the Eucerini, due to the long antennae of the ♂. Later citations are given above. Michener & Moure (1957) suggested that Friese's type specimens from Brazil may be mislabeled; I have not seen any specimen of *T. chalybaea* from this country besides the type series.

This is the largest, most frequently collected and broadly distributed species of *Tapinotaspis*. The ♀ has a black, shiny metasoma; I have not noticed the blue reflections mentioned by Friese in the original description, which gave the name to the species. The oil-collecting appartus of the middle tarsus differs from that in the other three species: the brushes of dense, oil-collecting hairs are present on most of the basitarsus and on the tarsomeres 2-4, but are absent on the distotarsus. In the other species the brushes on the basitarsus are restricted to its apex, and the brushes on the distotarsus are as well developed as those on the tarsomeres 2-4.

The extent of the white pile varies among specimens. ♀ usually have the whole head and thorax with black hairs, except a small white patch on the tegula, but some specimens (like the lectotype of *T. chalybaea*) may have white hairs on the clypeus, around the antennal sockets and on the posterior angles of the scutum. ♂ always have white hairs on the face, but on the thorax white hairs may cover all the dorsum (from pronotum to metanotum) or be restricted to the pronotum and the anterolateral angles of the scutum. Specimens with extended and reduced white pile occur at the same localities.

Distribution: Brazil (Pará) according to Friese (1899), Uruguay, department of Colonia, and Argentina, provinces of Tucumán, La Rioja, Córdoba, Santa Fé, Entre Ríos, Buenos Aires, La Pampa and Río Negro.

Material studied: Brazil (types of *T. chalybaea*, ZMB). Uruguay. 1♀, Carmelo, 8-XII-1924, E. Blanchard (MACN). Argentina. Tucumán: 4♀♀ and 1♂, 11 km N Cadillal, 6-XI, 11-XI, 18-XI and 8-XII-1983, R. B. Roberts (SEM); 6♀♀, 11 km N El Cadillal, 8-XI-1991, Rozen, Peña & Ugarte (AMNH, 1♀ "on *Nierembergia*"); 3♂♂, Tapia, 11-I-1948, Monrós & Willink (IFML); 1♀, Tapia, 4-I-1976, L. Stange (IFML); 1♀, Los Ralos, Dpto. Cruz Alta, 12-X-1969, P. Fidalgo (IFML). La Rioja: 1♀, La Rioja, E. P. Reed (CAS). Córdoba: 1♂, Córdoba (holotype of *T. longicornis*, ZMB); 1♀, Granja, 9-II-1921, J. Hubrich (ZSM); 1♂, Capital, 13-XI-1955, A. Giorgetta (IFML); 1♀, Chateau Carrera, 23-X-1982, A. Cocucci (IFML); 1♂, Argüello, De Carlo & Viana (MACN); 2♀♀, Almafuerte, 20-XI-1989, M. Fritz (MACN); 1♂, Canals, 12-XI-1941 (MLP); 1♀, Dean Funes, 3-XII-1942. Santa Fe: 2♀♀, Piquete, 11-XII-1921 and 8-I-1930, Bridarolli (MACN); 2♂♂, Alvear, 12-XI-1916, J. Hubrich (ZSM); 1♂, Salad. (Saladillo, nr. Rosario), 2-XI-1921, J. Hubrich (ZSM); 1♀, Alberdi, 24-XI, J. Hubrich (ZSM). Entre Ríos: 1♀, Liebig, X-1995, Zelich (MACN). Buenos Aires: 2♂♂, Chacabuco (types of *T. chacabucensis* Holmberg, MACN). La Pampa: 2♀♀ and 6♂♂, E. Castex, 12-XI-1945, J. Daguerre (MLP); 1♂, Santa Rosa, Rio Quinto, IX-1910 (MLP); 5♂♂, General Pico, I-1954, W. Benson (MACN); 1♂, Gutracán, 15-XII-1952, O. Casal (MACN). Río Negro: 1♀ and 2♂♂, Choele Choel, XII-1989, M. Fritz (MACN); 2♀♀ and 3♂♂, Río Colorado, I-1977, M. Fritz (MACN).

Tapinotaspis nordestina sp. n.
(Figs. 1-2, 4-6)

Tapinotaspis spec. nov. 1: MACHADO et al. 2002: 354-357, Figs. 3B-D, 4C-D.

Diagnosis: This species is easily distinguished from other *Tapinotaspis* by the short jugal lobe of the hind wing, which is only one fourth of the length of the vannal lobe, by the short, velvety vestiture of the dorsum of the thorax and propodeum, by the spiniform setae on the forecoxa and trochanter of the ♀, by the entirely black vestiture of the ♀, and by the flagellum of the ♂, which is not elongate and has a white apical spot.

Holotype ♀: Length 7.0 mm (paratypes, 7.0-7.7 mm); length of forewing 6.4 mm (paratypes, 6.5-6.7 mm).

Coloration: Integument of body black, except dark reddish base of mandible, reddish-brown condylar surface of flagellum and yellow apical spot on opposite side of last flagellomere. Wings dark, evenly infuscated; veins and pterostigma dark-brown.

Vestiture: Dark-brown to black all over the body. Head, sides and venter of thorax and propodeum, legs, and metasomal sterna with long, erect hairs. Scutum, scutellum, metanotum, metapostnotum, posterior face of propodeum, and anterior concave face of T1 with velvety appearance, due to short, dense, squamiform hairs (Fig. 2a-b). Erect hairs on face as long as 1.0-2.6 times flagellar diameter, those on scutum and scutellum 0.4-0.6 times flagellar diameter, and those on mesopleuron 1.4-2.2 times flagellar diameter. Metasomal terga T1-3 with bare polished apical area, widest on T2; laterally to bare area with dense apical band of appressed, plumose hairs, brief on T1, intermediate on T2 and more extended on T3; apical band of hairs complete on T4; prepygidial fimbria on T5 of long hairs; base of T2-4 with simple hairs.

Sculpture: Integument smooth and shiny between punctures. Face with small, dense punctures, 1-2 diameters appart. Punctures on scutum, and all the area corresponding to velvety vestiture, extremely small and dense, regularly distributed, separated by 0.5-1 times their diameter. Mesopleuron with scattered small punctures.

Morphology: Proportion of lower to upper interocular distance 0.85:1. Proportion of ocellocular to postocellar distance 0.85:1. Distance between lateral ocellus and posterior margin of head 0.8 times ocellar diameter. Proportion of antennocular to interantennal distance 0.75:1. Proportion of scape, pedicel and first six flagellomeres 2.54:0.64:1:0.33:0.5:0.55:0.6:0.64. Clypeus 1.9 times broader than long. Paraglossa beyond apex of suspensorium twice as long as suspensorium. Propleuron without lateral carina. Profile of scutellum weakly convex, metanotum rather flat, slanting to rear, metapostnotum and propodeum slanting to rear. Forecoxa and trochanter with spiniform setae. Middle tarsus elongate, proportion of basitarsus to following tarsomeres, 1:0.3:0.3:0.3:0.3; brushes of dense, oil-collecting hairs present on apex of basitarsus, tarsomeres 2-4 and on distotarsus. Hind basitarsus with apical projection pointed, covered with hairs on both sides. Jugal lobe of hind wing 0.24 times as long as vannal lobe measured from wing base. Pygidial plate funnel-shaped, with apical fourth parallel-sided and apex rounded.

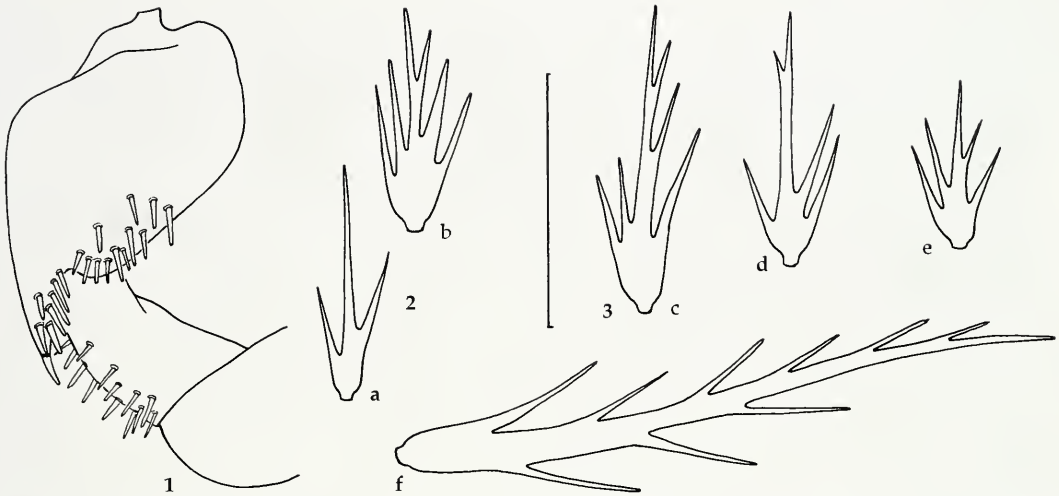
♂: Length 6.7-7.0 mm; length of forewing 6.6-6.8 mm.

Coloration: Integument of body black, except white spot on last flagellomere, reddish apex of mandible, and reddish pygidial plate. Wings evenly infuscated as in the ♀.

Vestiture: Pubescence on head, thorax, propodeum, most of legs, and apical bands on T1-5 and S2-5 pale yellowish brown, on mid and hind tibia and basitarsus blackish (except pale hairs close to basitibial plate), on metasoma blackish, except on above mentioned apical bands, but hairs on T6 variable, pale in some specimens and blackish in others. Head hirsute, with short plumose hairs and long simple hairs, latter ones up to 2.5 times as long as flagellar diameter. Scape also with long simple hairs, 1-2 times as long as flagellar diameter. Scutum with two strata of hairs, one of short, dense hairs (similar to that of ♀), and another of scattered simple hairs, as long as 1-1.5 times flagellar diameter. Scutellum, metanotum and metapostnotum with short, dense hairs; remainder of thorax with long hairs, those on mesopleuron 2.5 times as long as flagellar diameter. Metasomal terga with dense apical bands of appressed hairs, restricted to lateral fourth on T1, to lateral third on T2-3, complete but narrow on T4, and complete and broad on T5; T6 and T7 laterally with long hairs; upper surface of pygidial plate covered with hairs. Apical fringes on S2-5 dense, with hairs straight, surpassing posterior margin of sterna.

Sculpture: Similar to that of ♀.

Morphology: Proportion of lower to upper interocular distance, 0.75:1. Proportion of ocellocular to postocellar distance, 0.85:1. Distance between lateral ocellus and posterior margin of head 0.7 times ocellar diameter. Proportion of antennocular to interantennal distance, 0.55:1. Proportion of scape, pedicel and



Figs. 1-3. *Tapinotaspis nordestina* **sp. n.**, ♀: **1,** forecoxa and trochanter, anterior view; **2a-b,** hairs of scutum. *Tapinotaspis ogloblini* **sp. n.**, ♀: **3c-f,** hairs of scutum. Scale line = 0.05 mm.

first six flagellomeres, 3.1:0.85:1:0.75:1:1.05:1.05:1.05. Pygidial plate with lateral margins converging apically; apex narrowly rounded. Disc of sixth sternum without sclerotized projections; lateral margin of sternum continuous, without projection. S7, S8, and genital capsule as in Figs. 4-6.

Etymology: The name refers to the northeastern area of Brazil, where the species was found.

Comments: The hairs of the dense lateral and dorsal brushes of the elongate middle tarsus are finely branched in this species, as mentioned by Machado et al. (2002). In the other three species these hairs have, along all their length, minute, alternate, scalelike branches (Neff & Simpson 1981, Fig. 41; Cocucci et al. 2000, Fig. 12A-B,D).

Distribution: Brazil, state of Pernambuco.

Material studied: Holotype ♀, Brazil, Pernambuco, Fazenda Bela Vista, bei Catimbau/Buique, 780 m, 21-23-X-1996, S. Vogel (an *Angelonia* cfr. *cornuta*) (MACN). Two ♀ paratypes, same data as holotype (Vogel, MACN); 1♂ paratype, same data as holotype, but on 22-II-2002 (an *Angelonia cornigera*) (MACN); 2♂♂ paratypes, same data as holotype, but on 24-II-2002 (sleeping aggregation on Lamiaceae) (MACN).

Tapinotaspis latitarsis (Friese)
(Figs. 7-10)

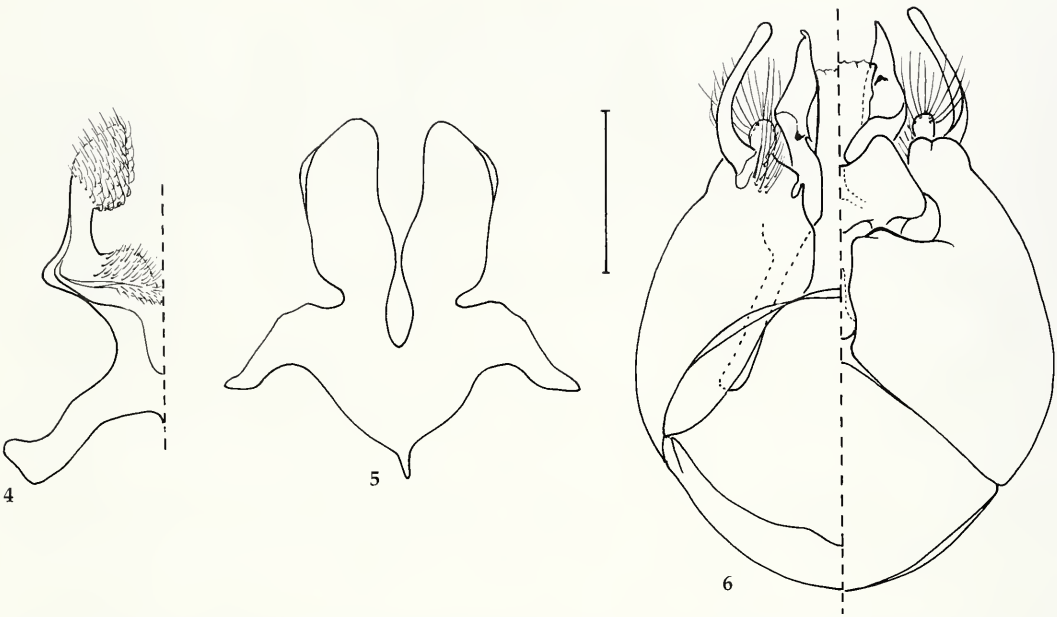
Exomalopsis latitarsis Friese, 1899: 266-267. Lectotype ♀, Brasil, Sello, 481 (ZMB, designated by Moure, 1994). Schrottky, 1902: 533.
Tapinorrhina latitarsis: Moure, 1994: 273-276.
Tapinotaspis latitarsis: Roig Alsina, 1997: 17, Fig. 10.

Moure (1994) designated a ♀ lectotype and provided a detailed redescription of that specimen. The unknown ♂ is briefly described below. The ♀ differs from that of *T. ogloblini* by the lack of short decumbent pubescence on the scutum, by the shorter flagellomeres, by the second flagellomere being entirely black or with orange on a reduced apical portion, and by the metasomal apical band on T3 broadly interrupted in the middle.

♂: Length 6.0-6.5 mm; length of forewing 5.0-5.2 mm.

Coloration and vestiture: Similar to that of ♂ *T. ogloblini*, except clypeus entirely black.

Morphology: Proportion of lower to upper interocular distance, 0.8:1. Proportion of ocellocular to postocellar distance 0.9:1. Distance between lateral ocellus and posterior margin of head 0.5 times ocellar



Figs. 4-6. *Tapinotaspis nordestina* **sp. n.**, ♂: **4,** S7, ventral view (left half); **5,** S8, ventral view; **6,** genital capsule, ventral (left) and dorsal (right) views. Scale line = 0.5 mm.

diameter. Proportion of antennocular to interantennal distance, 0.53:1. Proportion of scape, pedicel and first six flagellomeres 3.7:0.8:1:1.3:1.5:1.6:1.5:1.5. Clypeus 2.2 times broader than long. Pygidial plate with lateral margins converging apically; apex broadly rounded. Disc of sixth sternum with lateral preapical strongly sclerotized toothlike projection; lateral margin of sternum also with a toothlike albeit smaller projection, which is connected to the discal projection by weak carina (Fig. 7). S7-8 and genital capsule as in Figs. 8-10. For differences with *T. latitarsis*, see diagnosis of this species below.

Distribution: Brazil (Curitiba) and Uruguay (Montevideo) according to FRIESE (1899), Argentina, provinces of Entre Ríos and Buenos Aires.

Material studied: Brazil: 1♀ "Brasil, SELLO, 481" from the type series (ZMB). Argentina: Entre Ríos: 2♀♀, Pronunciamiento, ZELICH col. (MACN). Buenos Aires: 1♀ and 2♂♂, Punta Lara, 3-XII-1946, A.M. (MLP); 1♀, Punta Lara, 11-XII-1934, J. DAGUERRE (MACN).

Tapinotaspis ogloblini sp. n.
(Figs. 3, 11-13)

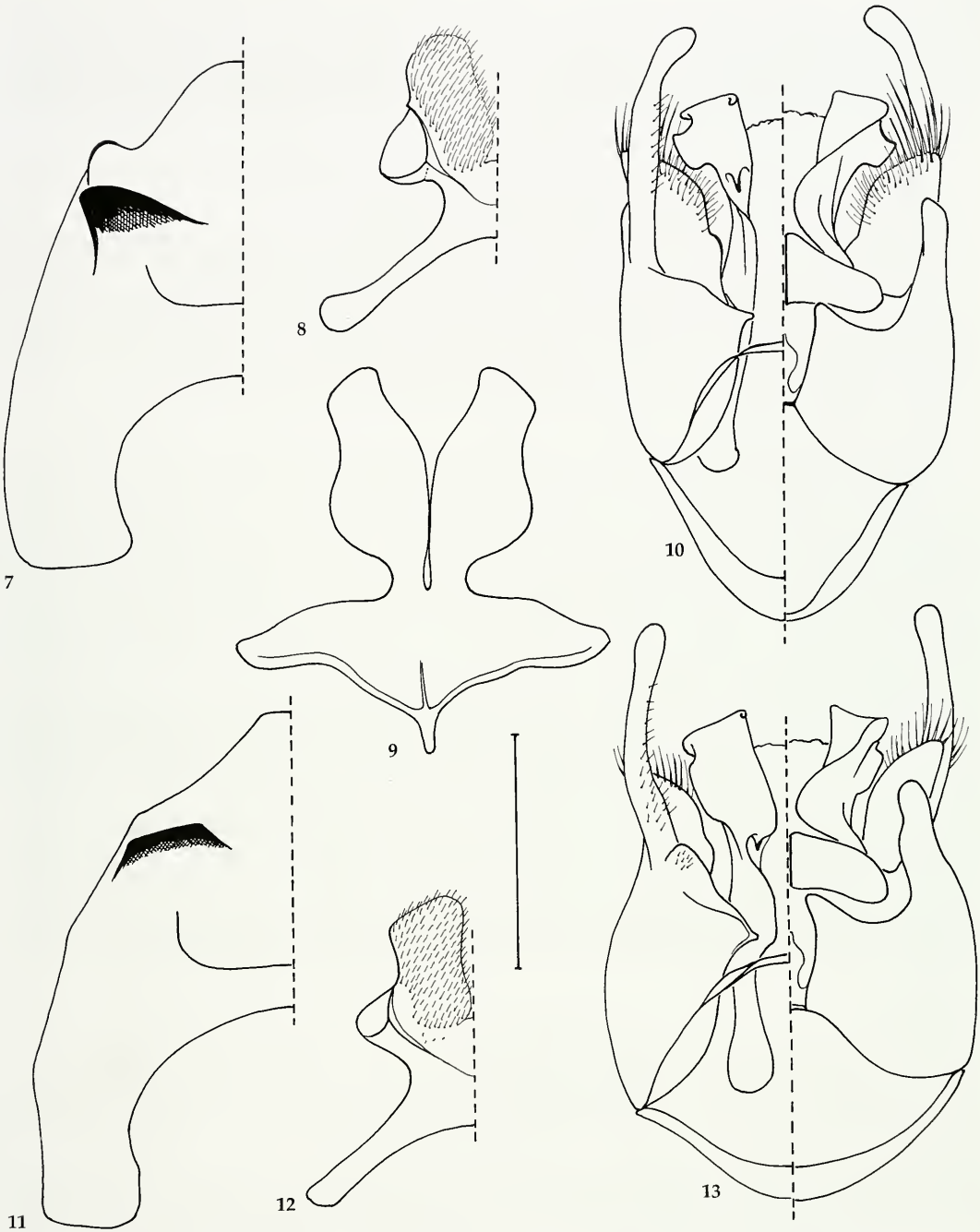
Tapinotaspis cf. *latitarsis*: COCUCCI et al. 2000: 64, 69.

Diagnosis: Species closely related to *T. latitarsis*, which it resembles in size, color and general appearance. The two species share the lateral discal projections on the ♂ sixth sternum and the bare apex of the ♀ hind basitarsus. *Tapinotaspis ogloblini* can be differentiated from *T. latitarsis* by the yellow clypeus of the ♂, the longer flagellomeres in both sexes, the type of pubescence on the ♀ scutum, and the shape of the ♂ sterna 6-8 and genital capsule.

♂ holotype: Length 6.5 mm (paratypes, 6.5-7.0 mm); length of forewing 5.5 mm (paratypes, 5.3-5.6 mm).

Coloration: Integument of body black, except yellow clypeus, yellowish tibial spurs, and reddish-brown tarsi, pygidial plate and condylar surface of flagellum. The clypeus is extensively yellow, except a narrow lateral black stripe. Wings hyaline, slightly infuscated; veins and pterostigma dark-brown.

Vestiture: Pale, whitish all over the body, except brownish on base of metasomal terga T2-6 and on



Figs. 7-13. *Tapinotaspis latitarsis* (FRIESE), ♂: **7,** S6, ventral view (left half); **8,** S7, ventral view (left half); **9,** S8, ventral view; **10,** genital capsule, ventral (left) and dorsal (right) views. *Tapinotaspis ogloblini* **sp. n.**, ♂: **11,** S6, ventral view (left half); **12,** S7, ventral view (left half); **13,** genital capsule, ventral (left) and dorsal (right) views. Scale line = 0.5 mm.

inner side of tarsi. Head, thorax and propodeum with long, erect, plumose hairs, those on face as long as 1.0-2.5 times flagellar diameter, those on scutum 1-3 times flagellar diameter, and those on mesopleuron 3 times flagellar diameter. Metapostnotum glabrous and shiny. Metasomal terga with dense apical bands of appressed hairs, restricted to lateral third on T1, but complete on T2-6; base of T2-6 with scattered hairs; T7 with long hairs laterally; upper surface of pygidial plate covered with hairs. Apical fringes on S3-5 with hairs straight, surpassing posterior margin of sterna.

Sculpture: Integument smooth and shiny between punctures. Face with small punctures 1-3 diameters apart. Punctures on scutum larger, irregularly distributed, separated by 1-3 times their diameter, denser on center of scutum. Mesopleuron with small scattered punctures.

Morphology: Proportion of lower to upper interocular distance 0.8:1. Proportion of ocellocular to postocellar distance 0.9:1. Distance between lateral ocellus and posterior margin of head 0.4 times ocellar diameter. Proportion of antennocular to interantennal distance 0.55:1. Proportion of scape, pedicel and first six flagellomeres 3.7:0.8:1:1.8:1.8:1.8:1.7:1.8. Clypeus 2.25 times broader than long. Pygidial plate with lateral margins converging apically; apex broadly rounded. Sixth sternum with lateral preapical strongly sclerotized carinate transverse projection; lateral margin of sternum continuous, without projection (Fig. 11). S7 and genital capsule as in Figs. 12-13. S8 almost identical to that of *T. latitarsis*.

♀: Length 6.5-7.6 mm; length of forewing 5.3-5.6 mm.

Coloration: Similar to that of ♂, but clypeus black; condylar surface of flagellomeres 2-10 orange, in a few specimens base of second flagellomere dark, and in a few others apex of first flagellomere orange.

Vestiture: Similar to that of ♂, but shorter. Pale, whitish all over the body, except brownish on base of metasomal terga T2-4, on S1 and on inner side of tarsi; hairs of pygidial fimbria also brownish. Hairs on face as long as 1.0-2.3 times flagellar diameter, on mesopleuron 2-3 times flagellar diameter. Scutum with two strata of hairs: one of erect, finely branched hairs as long as 1-2 times flagellar diameter (shorter ones on anterolateral angles of scutum and bordering tegula), and another one of decumbent short hairs, as long as 0.3-0.5 times flagellar diameter (Fig. 3c-d), although some intermediate hairs occur (Fig. 3f). Metasomal terga with apical bands as follows: T1 with lateral patch, T2 with band restricted to lateral fourth, T3 with band briefly interrupted in middle, and T4 with band complete.

Morphology: Proportion of lower to upper interocular distance 0.85:1. Proportion of ocellocular to postocellar distance 0.83:1. Distance between lateral ocellus and posterior margin of head 0.6 times ocellar diameter. Proportion of antennocular to interantennal distance 0.75:1. Proportion of scape, pedicel and first six flagellomeres 2.6:0.7:1:0.5:0.7:0.8:0.8:0.8. Clypeus 2.5 times broader than long. Paraglossa beyond apex of suspensorium 1.5 times as long as suspensorium. Propleuron without lateral carina. Profile of scutellum weakly convex, that of metanotum convex, slanting to rear, that of metapostnotum and propodeum basaly slanting to rear, then abruptly so. Forecoxa and trochanter with long hairs, without spiniform setae. Middle tarsus elongate, proportion of basitarsus to following tarsomeres 1: 0.28:0.25:0.25:0.28; brushes of dense, oil-collecting hairs present on apex of basitarsus, tarsomeres 2-4 and on distotarsus. Hind basitarsus with apical projection pointed; apex devoid of hairs. Jugal lobe of hind wing 0.38 times as long as vannal lobe measured from wing base. Pygidial plate triangular, with apex broadly rounded.

Etymology: The species is named after Alejandro Ogloblin, who described several remarkable bees from Argentina.

Comments: I have observed this species collecting oils from flowers of *Sisyrinchium platensis* (Iridaceae). Specimens of *T. ogloblini* and *T. latitarsis* have been collected flying in the same place at the same time (Punta Lara, 3-XII-1946).

Distribution: Argentina, provinces of Entre Ríos and Buenos Aires.

Material studied: Holotype ♂, Argentina, Buenos Aires, Partido Florencio Varela, 5 km SE Bosques, 13-XI-1996, A. Roig Alsina (ex *Sisyrinchium platense*) (MACN). The following are paratypes. Argentina: Entre Ríos: 3♂♂, Primero de Mayo, 13-XII-1957 (MLP). Buenos Aires: 1♀ and 1♂, Punta Lara, 3-XII-1946, A.M. (MLP); 4♀♀ and 4♂♂, same data as holotype (MACN); 8♀♀, same data as holotype, but collected 15-XI-1997 (MACN, ZSM, IFML); 8♀♀, same data as holotype but collected 29-XI-1998 (MACN).

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