

Two new species of the genus *Phytodietus* Gravenhorst, 1829 (Hymenoptera: Ichneumonidae) from Mexico

Два новых вида рода *Phytodietus* Gravenhorst, 1829 (Hymenoptera: Ichneumonidae) из Мексики

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КЛЮЧЕВЫЕ СЛОВА: Ichneumonidae, *Phytodietus*, новые виды, Мексика.

ABSTRACT: Two new tryphonine species, *Phytodietus* (*Neuchorus*) *melanocerus* sp.n. and *Ph. (N.) thompsoni* sp.n. from Mexico are described and illustrated.

РЕЗЮМЕ: Из Мексики описаны два новых вида ихневмонид подсемейства Tryphoninae: *Phytodietus* (*Neuchorus*) *melanocerus* sp.n. and *Ph. (N.) thompsoni* sp.n.

Introduction

Genus *Phytodietus* Gravenhorst, 1829 belongs to the subfamily Tryphoninae, all species of this group being koinobiont ectoparasitoids. Hosts of *Phytodietus* are small, moderately concealed hairless larvae of different Lepidoptera (mainly Tortricidae, Pyralidae, etc). Females of the genus may be easily recognized by a sagittate shape of the ovipositor (Fig. 4). Nearctic fauna of *Phytodietus* was revised by Loan [1981], most part of neotropical species was reviewed by Gauld et al. [1997], but both revisions do not include Mexican species (*Ph. bellulus* Cresson, 1874, male = *Ph. gracilicornis* Cresson, 1874, female, and *Ph. mexicanus* Cresson, 1874); all these species belong to the subgenus *Neuchorus* [Townes et Townes, 1966]. The types of these species were examined by the senior author. Two new species of subgenus *Neuchorus* from Mexico are described here.

Most of the material is preserved in the Insect Museum of the University of Tamaulipas, Cd. Victoria, Mexico. Other material on the genus was studied in the U.S.A.: American Entomological Institute Gainesville, Florida, curator D. Wahl; Academy of Natural Sciences of Philadelphia, curator D. Azuma; U.S. National Museum of Natural History, Smithsonian Institute, Washington, curators R. Carlson and D. Furth).

Phytodietus melanocerus Kasparyan et Ruiz sp.n.
Figs 1, 3, 4.

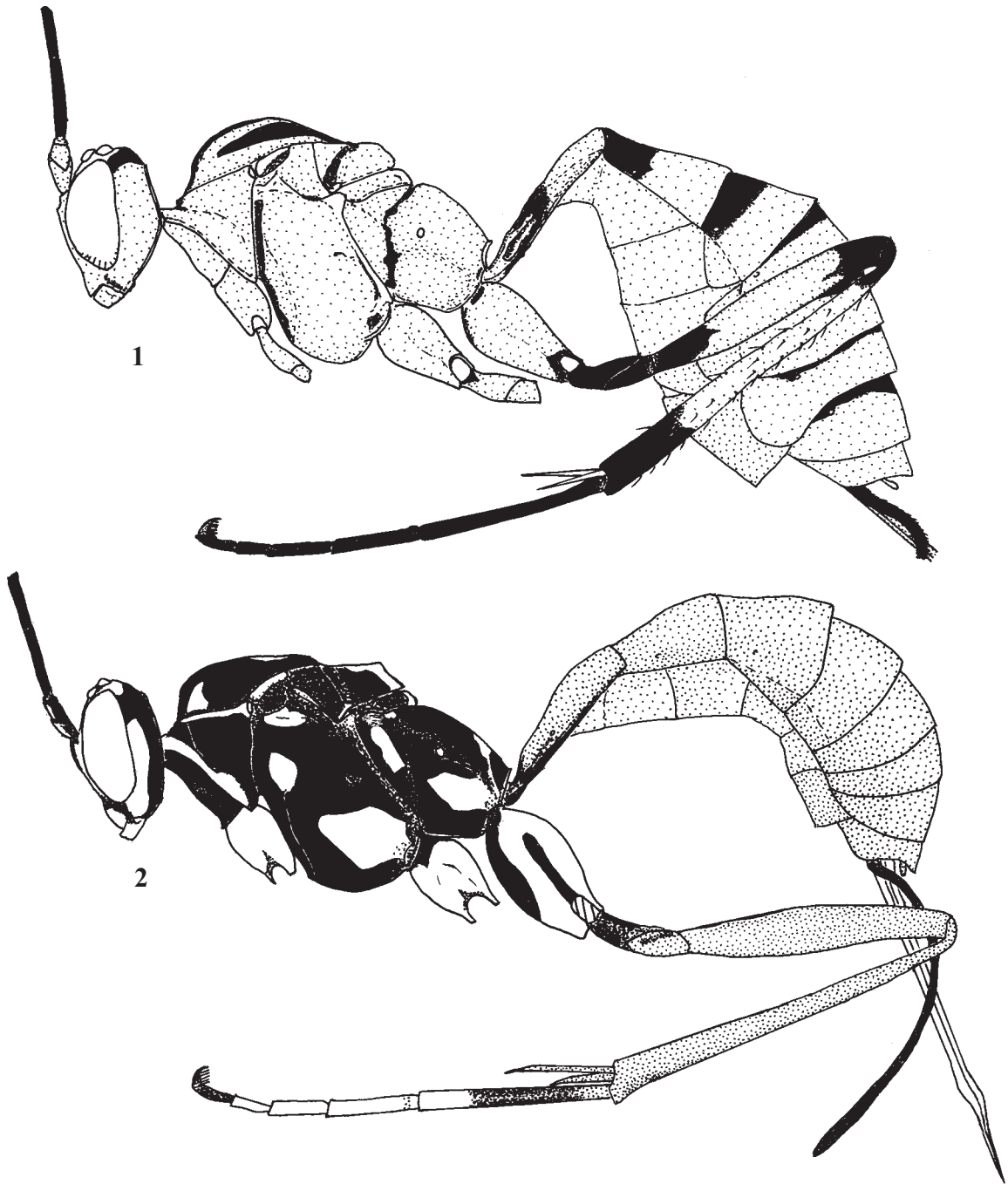
DESCRIPTION. Female. Fore wing 6.5–8.5 mm long. Antenna with 35–37 flagellar segments; basal flagellomeres

not swollen (Fig. 1). Mandibles basally broad, strongly tapered to apex, with lower tooth slightly shorter than the upper. Clypeus with sharp lower margin which is disrupted medially by weak notch. Malar space 0.7–0.8 times as long as basal width of mandible. Lateral ocellus separated from eye by 1.2–1.5 times its diameter; ocelli situated on front of head rather than on top. Occipital carina complete, its lower end joining hypostomal carina. Mesosoma weakly polished, with fine but rather distinct dense setiferous punctures; speculum with hairs. Punctures of metapleurum superficial and obscured by fine granulation. Pronotum without epomia. Notauli superficial. Prepectal carina present but very weak. Submetapleural carina almost complete. Propodeum without any carinae, with rather short erect hairs, and fine dorsal transverse wrinkles. Tergites smooth, more or less evenly covered with rather dense short hairs. First tergite (Fig. 4) 2.2–2.6 times as long as wide; its median basal pit very deep and surrounded by highly elevated margins; glymmae very deep, their inner wall translucent. Second tergite about 0.9–1.0 as long as broad posteriorly. Ovipositor sheath 1.0 as long as hind tibia; pubescence of sheath moderately long.

Body yellow with a few black markings (Fig. 1, 3, 4). Scape and pedicel blackish dorsally, yellow ventrally. Flagellum and hind tarsus entirely black. Face, malar space, mandible (except for teeth) and palpi yellow. In addition to black markings on top of head (Fig. 3) there is often a small black stripe on cheek just beyond mandible. Mesoscutum with median longitudinal black band extends from front edge to scutellum (prescutellar groove black), and with two sublateral black bands (or sometimes brownish). Hind part of mesosternum (postpectus) sometimes black. Wing slightly infumate, its distal margin with distinct broad fuscous band. Fore and mid tarsi yellowish brown with segment 5 dark brown. Pterostigma blackish brown. Ovipositor sheath black with reddish apex (0.1).

Male structurally and chromatically similar to female. Sternites sometimes blackish on lower margin of median crease. Segment 1 of hind tarsus is sometimes brownish at basal half.

VARIATION. Black coloration of hind trochanters, base and apex of hind femur (Fig. 1) is typical for specimens from Morelos; in other specimens (from Tamaulipas) these parts of hind legs are yellowish red, only slightly darker than light yellow coloration of the other leg parts.



Figs 1, 2. *Phytodietus* (*Neuchorus*), habitus and colour pattern: 1 — *Ph. melanocerus* sp.n., 2 — *Ph. thompsoni* sp.n.
 Рис. 1, 2. *Phytodietus* (*Neuchorus*), рабитус и окраска 1 — *Ph. melanocerus* sp.n., 2 — *Ph. thompsoni* sp.n.

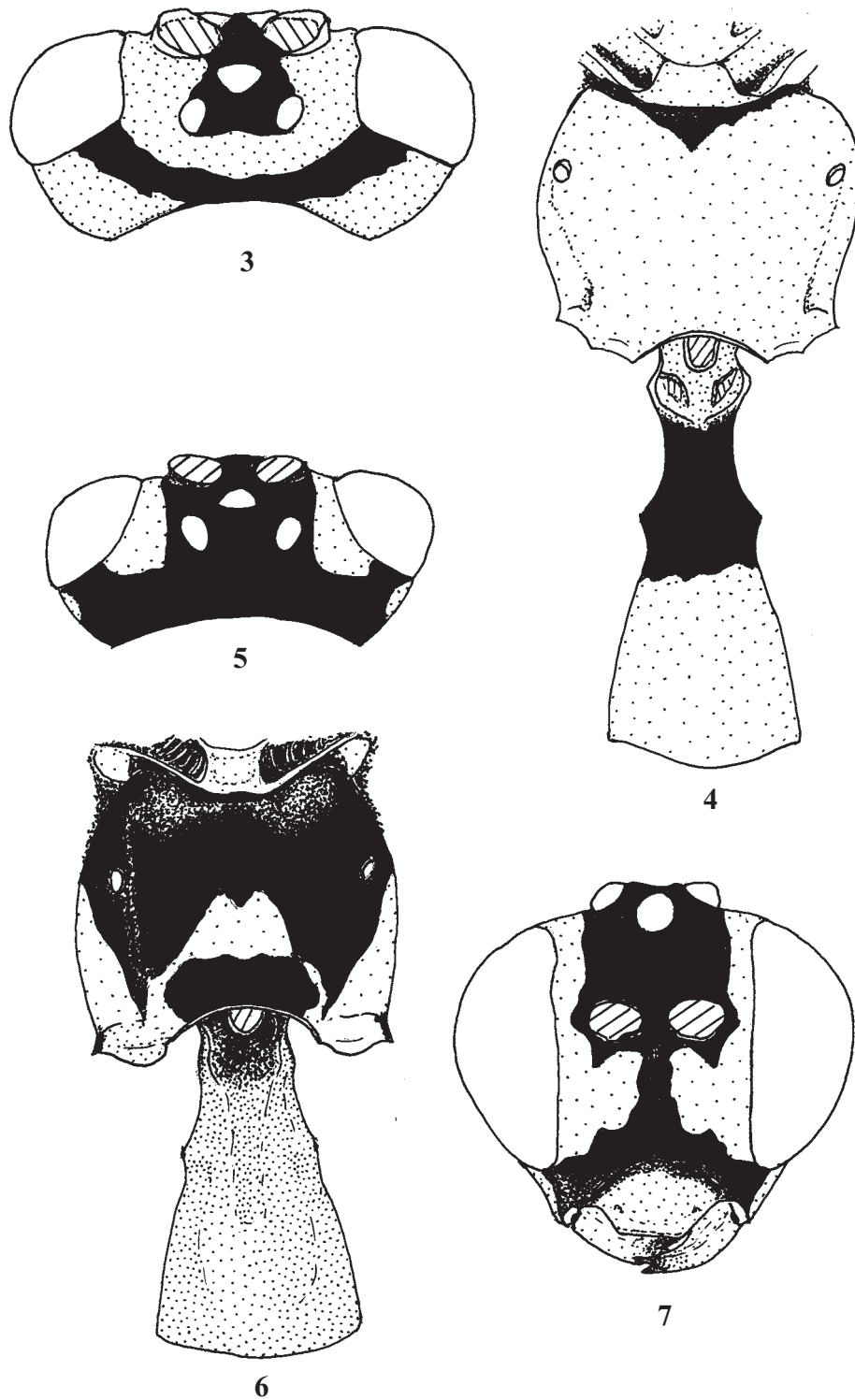
DIAGNOSIS. The new species may be easily distinguished from other yellow species of the subgenus (*Ph. bellulus*, *Ph. lindus* Gauld, 1997, *Ph. maximo* Gauld, 1997, *Ph. mexicanus*) by a completely black flagellum and distinct fuscous band at the distal wing margin.

MATERIAL. Holotype, ♀, Mexico, Morelos, Rt 142, km 49.5, btw El Vigia & San Filipe Neri, 12 VIII 1989 (A.L. Norrbom) (Mus. Washington). Paratypes. 1 ♂ (same label as holotype, Mus. Washington). Mexico, Tamaulipas: Cd Victoria, canyon Novillo, 5 V 1985 (A. Del Valle), 1 ♀; km 68, Cd Victoria-Soto la Marina, Villa Casas, 11 V 1985 (J. Ruiz C., A. Del Valle), 1 ♀ 1 ♂; same locality,

3 I 1987 and 14 IV 1987 (E. and H. Ruiz C.), 1 ♀ 1 ♂; Madronyo, 28 km SSW Cd Victoria, 1200 m, 25 V 1985 (E. Ruiz C.), 1 ♀ 1 ♂; Ocampo, 21, XI 1991 (E. Ruiz C.), 1 ♀; Llera, 44 km SCd Victoria, tr. Malaise, matorral, 4–18 XI 2000 (Kasparyan), 2 ♀♀ 2 ♂♂ (Mus. UAT, Cd Victoria; 1 ♀ 1 ♂ from Llera in Mus. St.Petersburg).

Phytodietus thompsoni Kasparyan et Ruiz sp.n.
 Figs 2, 5–7.

DESCRIPTION. Female. Fore wing about 7 mm long. Antenna with 39 flagellar segments; basal flagellomeres not



Figs 3-7. *Phytodietus* (*Neuchorus*): 3, 4 — *Pb. melanocerus* sp.n., 5-7 — *Pb. thompsoni* sp.n. 3, 5 — head, dorsal view; 4, 6 — postscutellum, propodeum and tergite 1, dorsal view; 7 — head, anterior view.

Рис. 3-7. *Phytodietus* (*Neuchorus*): 3, 4 — *Pb. melanocerus* sp.n., 5-7 — *Pb. thompsoni* sp.n. 3, 5 — голова сверху; 4, 6 — заднещитик, проподеум и тергит 1, сверху; 7 — голова спереди.

swollen (Fig. 2), apex of flagellum almost setiform. Face with distinct moderately fine and rather dense punctures. Mandibles basally broad, moderately tapered to apex, with lower tooth slightly shorter than the upper. Clypeus evenly convex, without apical median notch. Malar space 0.5 times as long as basal width of mandible. Lateral ocellus separated from eye by 1.1 its diameter; ocelli situated slightly before of top of head. Occipital carina complete, its lower end joining hypostomal carina which is slightly higher than occipital one. Mesosoma polished; pronotum beyond epomia and speculum shiny, without pubescence; mesoscutum with fine dense setiferous punctures; mesopleurum with distinct moderately fine and dense punctures; metapleurum mat, its punctures fine and dense. Pronotum with distinct epomia. Notauli superficial. Prepectal carina present. Submetapleural carina strong. Propodeum subpolished, without any carinae, with rather long hairs and without transverse dorsal wrinkles. Tergites smooth, more or less evenly covered with rather dense short hairs. First tergite (Fig. 6) 1.8 times as long as wide; its median basal pit moderately deep, and its lateral margins weakly elevated. Second tergite about 0.8 as long as broad posteriorly. Ovipositor sheath 0.95 as long as hind tibia; pubescence of sheath moderately long.

Head and thorax black with white markings, abdomen reddish (Figs 2, 5–7). Scape and pedicel blackish dorsally, yellow ventrally; flagellum black with segments 13–17 white. Mesoscutum black with ivory postmedian subquadrate spot and a pair of triangle anterolateral spots; prescutellar carinae and prescutellar groove black, scutellum white dorsally to apex; postscutellum whitish except for extreme base. Basal (sclerotized) part of first sternite and glymmae black. Fore and mid coxae white, only posterobasally black; trochanters ivory, trochanters II blackish dorsally; legs beyond trochanters light rufous, femora dorsally and ventrally blackish; front tarsi brownish rufous, mid tarsi brownish, segments 1–4 rufous at extreme apex. Hind coxa black ventrally and laterally, white at apical 0.3 and dorsally (except for median black line — Fig. 2); hind trochanter I black with rufous apex, trochanter II rufous with dorsolateral fuscous mark; hind femur and tibia reddish; hind tarsus white, segment 5 trico-

loured (brownish with reddish base and white apex). Wings hyaline. Pterostigma honey yellow with brownish margins.

Male. Coloration of male similar that of female, except for entirely light yellow face, clypeus and malar space.

DIAGNOSIS. The new species closely resembles nearctic *Ph. rutilus* Krebs 1969 in an unusual coloration of abdomen and general appearance; it can be easily distinguished by having hind part of mesoplurum, metapleurum, propodeum, mid and hind coxa black and white, without red color (black and/or red in *Ph. rutilus*). !

REMARKS. This species is named in honour an entomologist and our friend Manuel Rabindranat Thompson F., who has collected the type specimen of this species.

MATERIAL. Holotype, ♀, Mexico, Tamaulipas, km 7, Miquihua-na — El Tanque, 3 XI 1988 (R. Thompson F.) (Mus. UAT, Cd. Victoria). Paratype: Mexico, Nuevo Leon, San Pedro, Iturbidae, 32 km W Linares, 26 X 1962 (H. and M. Townes), 1 ♂ (AEI).

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