

A NEW SPECIES OF *ZETHUS* (HYMENOPTERA: VESPIDAE: EUMENINAE) FROM EASTERN PARAGUAY

BOLÍVAR R. GARCETE-BARRETT

Museo Nacional de Historia Natural del Paraguay, Sucursal 1 Campus U.N.A., 2169 CDP,
Central XI, San Lorenzo, PARAGUAY. e-mail: bolospheX@sce.cnc.una.py

Abstract.- *Zethus frederickorum* n. sp. is described from a female specimen collected at Reserva Natural del Bosque Mbaracayú, Eastern Paraguay.

Resumen.- Se describe *Zethus frederickorum* n. sp. a partir de un ejemplar hembra colectado en la Reserva Natural del Bosque Mbaracayú, Paraguay Oriental.

Bohart & Stange (1965) revised the Western Hemisphere species of the genus *Zethus*. In this revision the genus was divided in three subgenera, with the nominotypical subgenus containing eighteen species groups. The *smithii* group was defined as those species with the stem of tergum II longer than the stem of tergum I, pronotum without oblique carina and palp formula 6 : 4. This group included *Zethus smithii* Saussure, *Zethus miscogaster* Saussure, *Zethus iheringi* Zavattari, *Zethus caridei* (Brèthes), *Zethus simulans* Bohart & Stange, and *Zethus dicomboda* (Spinola), this latter with a subspecies: *prixii* (Brèthes).

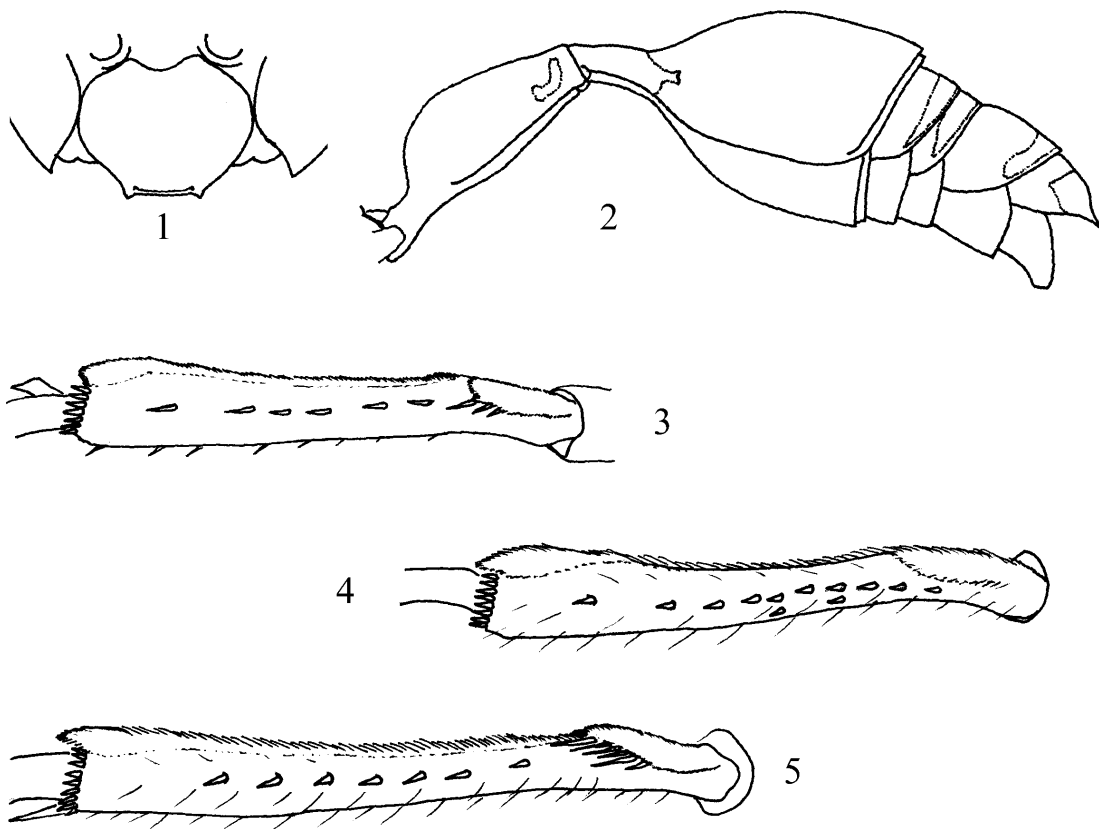
Ten years later Stange (1975) in his revision of the Bolivian species of *Zethus*, described the new species *Zethus porteri* as probably the most primitive species in the group, based in the relatively short stem of tergum II, the presence of mesoscutal welts and notauli and unspecialized features like the absence of bristles at the basitibial plate of hind leg.

A collecting trip to the cerrados of Aguarañu in the Reserva Natural del Bosque Mbaracayú resulted in a female specimen of *Zethus* with a remarkable color pattern, fits best into the *smithii* group and is described below. The holotype is deposited in the invertebrate collection of the Museo Nacional de Historia natural del Paraguay (IBNP).

***Zethus frederickorum* n. sp.**
(Figs. 1-3)

Holotype female: *Black with bright yellow* as follows: an oval spot on lower inner orbit; an L-shaped subapical mark on each side of tergum I; stem of tergum II; apical bands, interrupted at sides, on terga III – V; apical half of tergum VI (Fig. 2). Tegulae largely *dark chestnut*. All the legs are *orange* from the dorsal half of the femora. Wings *orange* with tip just a bit clearer, venation *chestnut*, pterostigma *yellowish*.

Length from antennal insertions to apex of tergum II about 13 mm. OOL : POL = 3 : 2,2. Clypeus (Fig. 1) 1.45X broader than long. Palp formula 6 : 4. Body covered with decumbent to suberect short sparse creamy pilosity. Tergum II covered with appressed whitish pile. Clypeus shining, covered with coarse, dense oval punctures and scattered fine punctures; apex convexly subtruncate and bidentate (Fig. 1). Frons densely striatopunctate. Remainder of head sculptured about as clypeus, sparser at temples and denser and finer on postocellar area where micropunctuation is quite dense. Pronotum sculptured as head, lower sides longitudinally striate. Mesoscutum shining, with moderately dense macropunctures and evenly distributed micropunctures, both sparser briefly submedially, leaving subtle “welts” close to the shallow but almost complete notauli. Mesepisternum shining, coarsely and regularly punctured, more densely so on upper plate. Lower plate free of micropunctures. Mesepimeron with dense macropunctuation,



Figs. 1-5) Females of the *Zethus smithii* group. 1-3) *Zethus frederickorum* n. sp. 1) Outline of clypeus in full-face view. 2) Lateral view of metasoma. 3) Dorsal view of right hind tibia. 4) *Zethus dicomboda prixii* (Brèthes), dorsal view of right hind tibia. 5) *Zethus smithii* Saussure, dorsal view of right hind tibia. Variable scale.

regularly spaced micropunctures and longitudinal microstriae. Scutellum sculptured like mesoscutum and separated from it by a crenate line; its apical fifth free of macropunctures. Metanotum dull, microgranulate, with coarse rounded punctures on its anterior half. Metapleurae rather dull, microgranulate as well as sides of propodeum. A very sharp postspiracular carina runs above. Sides of propodeum with microstriae and scattered macropunctures becoming sharp and dense towards the rear in a way that upper sides of propodeum are coarsely and transversely reticular. Posterior concavity with short central carina and densely covered with fine transverse carinulae and microstriae. Tergum I elongate oval, covered with rather dense macropunctuation and rather scattered

micropunctures; stem short. Expansion of sternum I depressed at middle and covered with rounded punctures and irregular microrrugae. Tergum II with stem rather short but longer than that of tergum I by less than two times (Fig. 2), covered with dense micropunctuation and moderately sparse fine macropunctures, with very faint subapical medial impression; apical lamella opaque, preceded by a sudden truncation a bit higher than the lamella (Fig. 2) and a thin crenulate line. Sternum II shining, covered with larger macropunctures and extremely fine, not very close, micropunctures; apical lamella similar to that of the corresponding tergum (Fig. 2). Remaining terga regularly macropunctured and micropunctured; corresponding sterna similarly sculptured but micropunctures less evident.

Midtibia with 2 apical spurs. Basitibial plate of hind leg bearing 3 short and strong bristles on its apical external border, followed by a discrete single row of 6 bristles along dorsum of tibia (Fig. 3).

Holotype: PARAGUAY: Canindeyú, Reserva Natural del Bosque Mbaracayú, Aguara-ñu, 28. vii. 1997, B. Garcete coll. (female IBNP).

Etymology: This species is named after my friends Federico Almada, Frederick Bauer and Frederick Adler.

Remarks: This new species fits most satisfactorily into the group of *Zethus smithii* (Bohart & Stange, 1965). The stem of tergum II is quite short but still longer than the stem of tergum I. This character plus the short apical lamella of tergum II and the presence of mesoscutal notauli and subtle welts puts this species close to *Z. porteri*, *Z. caridei* and *Z. dicomboda*, but the females of these species have no bristles on the apical outer border of

the basitibial plate (Fig. 4) of the hind leg (Stange, 1975). *Zethus frederickorum* has 3 short bristles (Fig. 3). The remaining species in the group, namely *Z. iheringi*, *Z. smithii* and *Z. miscogaster* (female of *Z. simulans* still unknown), have a larger number of very long bristles (Fig. 5). Also, the colour pattern of this species is distinctive: black with orange wings and whole legs apically and bright yellow markings on the metasoma (remarkably absent on the apex of tergum II).

LITERATURE

- Bohart, R.M. & L.A. Stange. 1965. A revision of the genus *Zethus* Fabricius in the Western Hemisphere (Hymenoptera: Eumenidae). Univ. Calif. Publ. in Entomology 40 : 1 – 208.
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