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Tachysphex peruanus, a New Species Related to *Tachysphex galapagensis* Williams (Hymenoptera: Sphecidae)

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Abstract.—*Tachysphex peruanus,* previously unknown, is a sister species of *Tachysphex galapagensis* and occurs in the coastal area of Peru.

A species not included in my revision (Pulawski, 1974) of Neotropical *Tachysphex* was found in material recently received for study. Relevant information is presented below. I sincerely thank Mary Ann Tenorio for taking the SEM picture and for drawing the distributional map.

Tachysphex peruanus, NEW SPECIES

Name derivation.—Peruanus is a neo-Latin adjective derived from Peru, where the specimens have been collected.

Diagnosis.—Like other members of the *terminatus* species group, *peruanus* has a swelling behind each hindocellus combined with a flat, nonprominent labrum and punctate mesopleuron. Like *clarconis* W. Fox and *galapagensis* Williams, but unlike the remaining species of the group, the metapleuron of *peruanus* is simple (without carina or prominence in its upper part), and the metapleural flange is not expanded. Unlike all other species of the *terminatus* group, the clypeal lobe of the male is markedly angulate in *peruanus* (instead of truncate or arcuate), and the inner mandibular angle is simple (rather than dentate). Unlike *clarconis,* the vertex of *peruanus* is narrow (width to length ratio 1.3–1.4 in the female and 1.6–1.7 in the male instead of 1.9–2.2 and 2.1–2.6) and in the male the foretarsal rake is absent. Unlike *galapagensis,* the propodeal side is ridged in *peruanus* (nonridged or partly microridged in the former).

Description.—Mesopleural punctures more conspicuous posteriorly than in *galapagensis,* but less than in *clarconis.* Metapleural flange narrow. Upper metapleuron with a few simple, longitudinal ridges in front of propodeal spiracle, without prominence in its posterior part, without oblique carina beneath fore end of flange. Propodeum finely sculptured between dorsum and side, side ridged. Basal tooth of hindcoxa low, obtuse.

Vestiture partly obscuring integument between antennal socket and orbit. Setae length: on vertex about 1.5 times midocellar diameter in female and about 1.7 in male; about 1 midocellar diameter on scutum anterolaterally.

Head, thorax and legs black, except the following: mandible reddish yellow at about two-thirds of its length, and tarsal apex brown. Color of gaster variable,

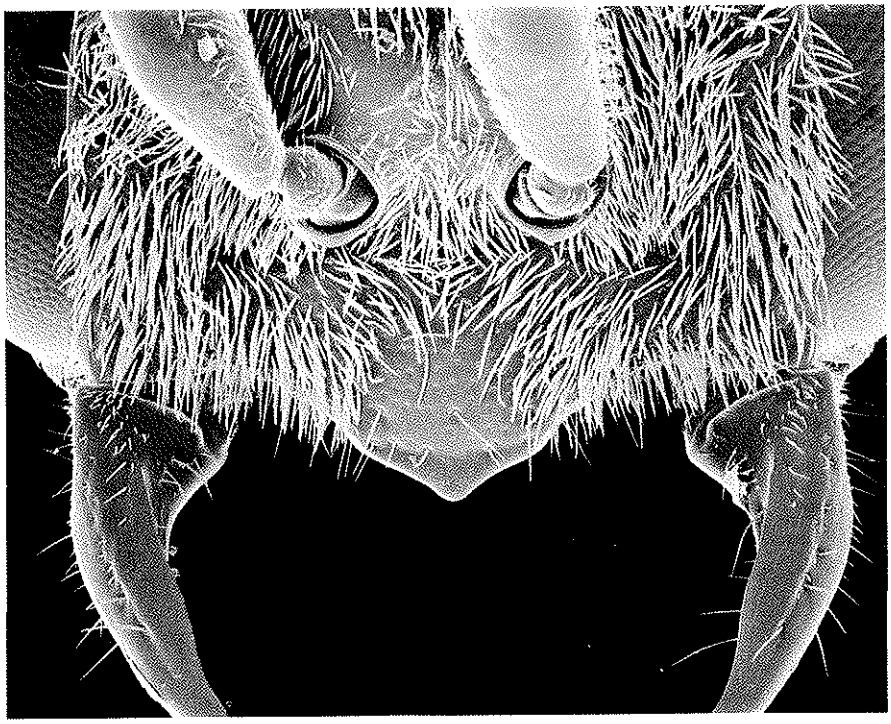

Figure 1. *Tachysphex peruanus* species nova—clypeus of male.

gastral terga I–IV fasciate apically (fascia of tergum IV less conspicuous than the remaining ones). Wings weakly infumate.

♀: Clypeus width 2.8 times its midlength; bevel poorly defined; lip arcuate or very obtusely angulate, without median projection. Dorsal length of flagellomere I 2.4–2.5 times its apical width. Frons dull, microsculptured between punctures. Vertex width 1.3–1.4 times its length. Length 7.3–9.8 mm. Gaster all red or with dark, irregular spots.

♂: Mandibular inner margin nondentate (Fig. 1). Clypeus width 2.8 times its width; lip angulate, with free margin concave on each side of apex (Fig. 1). Dorsal length of flagellomere I 1.3–1.5 times its apical width. Frons punctatorugose. Vertex width 1.6–1.7 times its length. Gastral sterna pubescent throughout. Forefemur notched. Foretarsomeres without preapical rake spines. Length 6.0–7.3 mm. Gaster differently colored in each specimen studied: all black, black basally (segments I–III) with the remaining segments red, and predominantly red (only segment I black).

Discussion.—The simple, unspecialized metapleuron of *clarconis, galapagensis,* and *peruanus* is a symplesiotypic character and therefore does not demonstrate close relationship. However, it does indicate that the three species are rather distinct from the remaining members of the group (in which the metapleuron is variously modified). Two derived characters are shared by *galapagensis* and *peruanus,* a narrow vertex and a reduced (some *galapagensis*) or absent foretarsal rake in the male, thus demonstrating their common origin. This is of great interest, since *peruanus* lives in an area from which ancestors of *galapagensis* most prob-

Figure 2. Geographic distribution of *Tachysphex galapagensis* Williams and *peruanus,* n. sp.

ably colonized the Galapagos Archipelago. However, each of the two species has at least one specialized character absent in the other (nonridged or barely ridged propodeal side in *galapagensis,* peculiar male clypeus and nondentate male mandible in *peruanus*), obviously precluding the latter from being the ancestor of the former. Clearly, the two are sister species, and must have evolved in parallel after their common ancestor colonized the Galapagos.

Geographic distribution (Fig. 2).—Coastal Peru, including foothills.

Material examined.—Holotype: ♀, Peru, Lambayeneque Province, Lambayeneque sand dunes, 2 Sep 1979, M. E. Irwin (~~♂~~) University of California, Davis).

Paratypes (all from Peru): Lambayeneque Province: Same data as holotype (1 ♂, California Academy of Sciences; 1 ♂, University of California, Davis). Lima Province: Chosica, 2800 feet, 11 June 1914, H. S. Parish (1 ♂, Cornell University); Matucana, 17 May 1920, Cornell Univ. Expedition (1 ♀, Cornell University).

Literature Cited

Pulawski, W. J. 1974. A revision of the Neotropical *Tachysphex* Kohl (Hym., Sphecidae). Polskie Pismo Ent., 44:3–80.

Also: Peru, Lima Province: Matucana, C.S. Porter & C. Calmbacher (1♀ 1♂, FSCA).
—"— , C.T. Brues (1♀, CAS).