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Wasbauer, Marius S  
Kimsey, Lynn S

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## A New Genus and Species of pompiline Spider Wasp from Northern South America (Hymenoptera, Pompilidae: Pompilinae: Priochilini)

MARIUS S. WASBAUER<sup>1,2</sup> & LYNN S. KIMSEY<sup>1</sup>

<sup>1</sup>Bohart Museum of Entomology, University of California, 1124 Academic Surge, Davis, California 95616, U. S. A.

<sup>2</sup>Corresponding author. E-mail: [mwasb@600amps.com](mailto:mwasb@600amps.com)

*Pompilodon* **gen. nov.** and its type species *Pompilodon katina* **sp. nov.** are described and illustrated. The relationships to related genera (*Priochilus* Banks, 1944 and *Balboana* Banks, 1925) are discussed.

**Key words:** *Priochilus*, *Balboana*, Neotropical, French Guiana, Ecuador

The Pompilidae or spider wasps are a large and diverse family of aculeate wasps which prey exclusively on spiders. They are found in all zoogeographic regions but are absent in polar areas. Aguilar *et al.* (2013) determined the total number of genera for the world at 125 and species at 4855. The family is probably most diverse in the tropics and in the Neotropical region, there are about 800 species (Fernandez 2002). In some areas, they are the dominant family of stinging wasps (Dos Santos *et al.* 2014). With climatic and anthropogenic factors reducing the area of tropical forests, it is important to survey the flora and fauna to determine a measure of the biodiversity remaining. The purpose of this paper is to add to our knowledge of this biodiversity by the description of a new genus and species of Pompilidae.

### Material and terminology

The holotype was photographed to illustrate the entire insect, the head in frontal view and the wings. The allotype male was photographed to illustrate the entire insect, the front of the head, the underside of the mesosoma. Drawings were made of the subgenital plate and of the genitalia from both the ventral and lateral aspects. Photographs of the entire insect and the larger structures were made with a GIGAmacro Magnify 2 coupled with a Canon EOS Rebel T5i using a Canon MP-E 65mm lens. Images were converted to tiffs using Adobe Photoshop Lightroom CC release 2015.4. Zerene Stacker 1.04 build T201711041830 was used to stack images. Imaging was done using Leica Application Suite, version 4.8.0 and Zerene Stacker, version 1.04. Abbreviations used in the text are found in Wasbauer and Kimsey (1985). The abbreviation F is used to denote the flagellar segments of the antenna (F1, F2, etc.) and D is the abbreviation for the discoidal cells. Abbreviations for the institutions mentioned in the text are BME–Bohart Museum of Entomology, University of California, Davis, California, USNM–United States National Museum, Washington, D.C., EMUS–Entomological Museum at Utah State University, Logan, Utah.

The specimens which form the basis for this study are from the private collection of MSW.

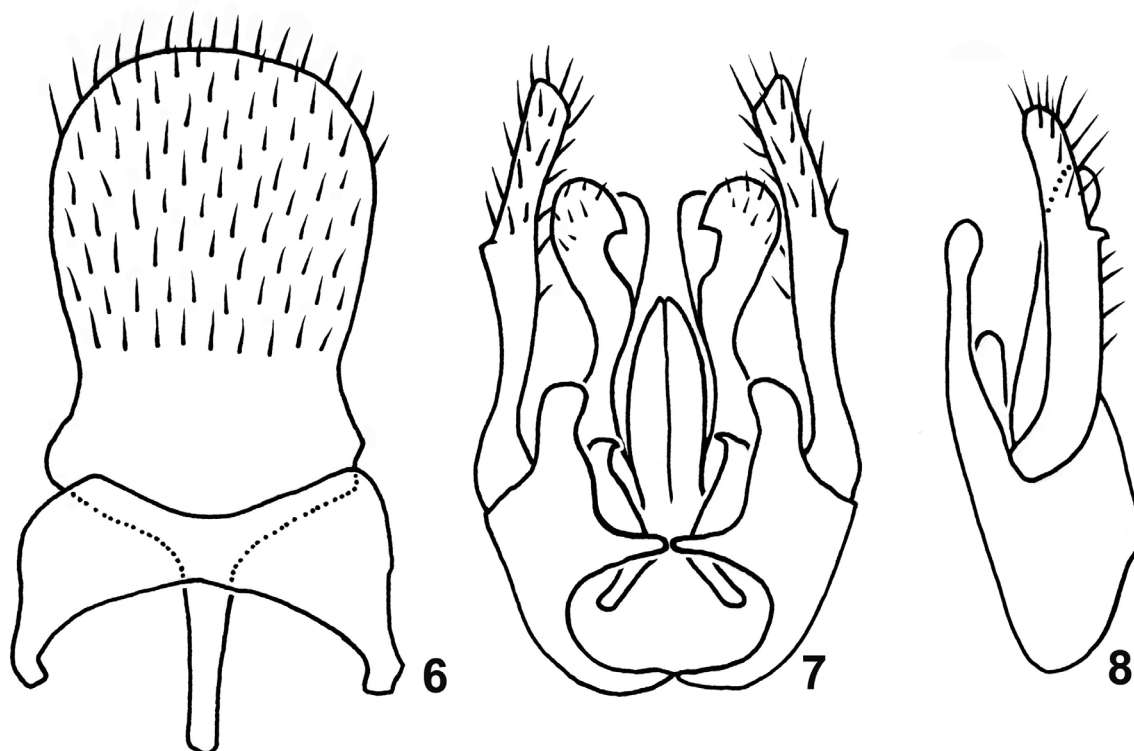
### *Pompilodon* Wasbauer, **gen. nov.** (Figs 1–8)

Type species: *Pompilodon katina* Wasbauer, **sp. nov.**

**Generic description.** FEMALE. Slender wasps, of agenoid form with dark bodies and narrow, banded wings. *Head.* Nearly circular, compound eyes large, converging above, UID about 0.7 LID, ocelli in a compact triangle, nearer to each other than to compound eyes, clypeus large, raised above mandibles, apex strongly rounded with distinct median tooth, apex of labrum with short dense bristles, malar space absent. Mandibles with long, apically directed bristles on inferior margin, labial palpi short, three segmented, maxillary palpi very long, fourth segment exceeding UID, about length of third antennal segment. Antennae not elongate, bicolored black and yellow. *Mesosoma.* Pronotum measured dorsally,



**FIGURES 1–5.** *Pompiliodon katina* **sp. nov.**, paratype, ♂ (1, 4) and holotype, ♀ (2, 3, 5). 1. Habitus, frontolateral view. 2. Head, frontal view. 3. Fore and hind wings. 4, 5. Habitus, lateral view.



**FIGURES 6–8.** *Pompiliodon katina* sp. nov., ♂. 6. Subgenital plate. 7. Genitalia, ventral view. 8. Genitalia, lateral view.

slightly shorter than mesonotum, sloping gently to collar, streptaulus present but weak medially, posterior margin arcuate to subangulate. Metapostnotum a broad band, slightly wider than postnotum, striate laterally with a sharp median linear impression. Propodeum long and rather low, posterior rim wide, flange-like. Legs slender, femora without spines or setae, tibiae with short, sharp spines and an apical cluster of longer, splayed spines, longest on anterior tibia. Dorsal surface of hind tibia with a very low series of linear raised areas, sometimes terminating in small spine. Longer hind tibial spur  $0.55 \times$  hind basitarsus length. Ultimate tarsal segment without a row of spines beneath. Pulvillar pad small, the comb weak consisting of only six or seven weak setulae. Tarsal claws cleft, inner ray bent away from outer ray. Forewing (Fig. 3) with MC about twice as long as its distance from wing tip; second intercubital vein bowed toward wing base, third intercubital bowed toward wing apex, narrowing SM3 at base; D3 with small pocket at its inner base. Second recurrent vein meeting subdiscoidal vein more than half the distance from base of subdiscoidal to the wing margin. Hind wing (Fig. 3) with transverse median vein scarcely curved, leaving anal vein at a wide angle and meeting median much before origin of cubitus.

**MALE.** Similar to female in most respects. Clypeus with only slight indication of a tooth on anterior margin. Metasoma slender. Antennae filiform, black, not patterned with yellow.

**Etymology.** *Pompiliodon* from the Greek *pompilos*, a fish that chases boats and *odontos*, a tooth.

**Discussion.** Waichert *et al.* (2015) proposed the tribe Priochilini in the subfamily Pompilinae to accommodate two genera, *Priochilus* Banks, 1944 and *Balboana* Banks, 1925, both Neotropical elements. *Pompiliodon* is a member of the Priochilini and is probably most closely related to *Priochilus*. Both sexes of *P. katina* will run to *Priochilus* in Evans' revision (1966) but are immediately separable by the rounded, toothed clypeus, elongate maxillary palpi of both sexes and bicolored antennae of the female. The male subgenital plate is broadly rounded at the apex as compared to the pointed or at least strongly posteriorly attenuate plate, the condition in most species of *Priochilus* (Banks 1944b). The female differs from *Balboana* in the pronotum sloping gently up from the collar, while in *Balboana* it rises at almost a perpendicular to the pronotal disc and has a small projection or tooth anteromedially. The male differs from *Balboana* in having filiform antennae and the subgenital plate is not compressed. In *Balboana*, the male antennae are crenulate, at least apically and the subgenital plate is strongly compressed.

***Pompiliodon katina* Wasbauer, sp. nov. (Figs 1–8)**

**Description.** FEMALE. *Body length* 6.7 mm. *Forewing length* 6.1 mm. *Color.* Integumental color of head and mesosoma black. Head with antennal scape and pedicel dark brown, F1 and F2 nearly black, F3–6 yellow, except for narrow dark stripe dorsally, remaining flagellomeres black. Coxae black, posteroventral portion of hind coxae cream colored. Wings banded. Forewing with strong basal band extending from cubital vein across basal and transverse median veins and filling anal cell nearly to its apex; a weaker band filling marginal cell except its apex, tip of SM1, all of SM2 and SM3 and apical portion of D3 fading out before wing edge, area apicad of SM3 lightly suffused with white. Coxae black, posteroventral portion of hind coxae cream colored. Pubescence thin, pale and appressed over most of body, nearly absent on face, appearing silvery on lower inner margins of compound eyes and brown on metasoma with longer, semi-erect brown and light hairs on apical segments. Integument of head and mesosoma matte due to micropunctuation, somewhat more shining on metasoma. *Head.* Vertex in nearly a straight line, barely extending above tops of compound eyes, ocelli in a narrow triangle, front angle less than a right angle, lateral ocelli nearer compound eyes than to each other, OOL/POL 0.45, MID/TFD 2.20, UID/LID 1.12, face with a narrow, impressed, median vertical line running from between antennal sockets to mid face, ultimate segment of labial palpus equals length of F3.

MALE. *Body length* 5.2 mm. *Forewing length* 4.9 mm. *Color.* As in female except fore and mid coxae cream colored ventrally, hind coxae cream colored posteriorly. *Head.* Apex of clypeus without large tooth. *Mesosoma.* Dorsolateral angles of pronotum with small yellow protuberance. *Metasoma.* Subgenital plate (Fig. 6) broadly rounded at apex. Genitalia (Fig. 7) with aedeagus much shorter than parapenial lobes and digiti. Gonostyli considerably longer than digiti, rod-like, toothed lateroventrally and set with strong setae dorsally and from tooth to apex, ventrally. Basal hooklets single. Digiti sigmoid in form, rounded apically with beak-like tooth mesally and a few apical setae.

Subgenital plate (Fig. 6) broad, spatulate, rounded apically, ventral surface and apex setose, except without setae on basal third of ventral surface.

**Variation.** Holotype and paratypes. *Body length* 8.0–9.0 mm. *Wing length* 4.8–6.9 mm. In the Ecuadorian paratypes the body color is entirely dark as contrasted with the cream color areas on the coxae of the holotype and allotype.

**Material examined.** Holotype FEMALE: French Guiana, 8.4 km. SSE Roura 4°41'N, 52°15'W, 200 m., V-25/29-1997, FIT, Ashe, Brooks. (BME). Allotype MALE: same data as holotype except coordinates read 4°40'N 52°15'W and date reads V-22/24-1997 (BME). Four Paratypes. FEMALE: Ecuador: Napo Province Huahua Sumaco, km. 45 on Hollin Loreto road, XII-14-1989 Malaise Trap, M. & J. Wasbauer, H. Real, 1♀ (BME); Napo Estac.[ción] Biol. Jatun Sacha VII-13-1994, 21 km E. Puerto Napo, FIT, Levy & G  rnier, 1♀ (BME); Sucumbios, Rio Napo, Sacha Lodge, 0°30'S, 78°30'W, 230 m, VI-12 /22-1995, Mal. Trap, P. Hibbs collector, 1♀ (EMUS); Sucumbios, Rio Napo Sacha Lodge, 0°30'S, 78°30'W, 220–230 m. VII-3/13-1994, P. Hibbs, 1♀ (USNM).

**Distribution.** The Roura area of French Guiana and the provinces of Sucumbios and Rio Napo in Ecuador. The species may have a wide distribution between these well separated sites. Further sampling needs to be done.

**Biology.** Then biology of this species is unknown. Because the female lacks modifications for digging and because species of *Priochilus*, which appear to be its closest relatives, are nest builders using various materials such as mud and plant material (Cambra *et al.* 2004), we suspect that *P. katina* does somewhat the same, or, perhaps, hides its paralyzed prey in holes or cavities above ground.

**Etymology.** The species name *katina* is the Amerindian tongue spoken by some of the indigenous people of French Guiana.

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