

First record of the genus *Probethylus* Ashmead (Sclerogibbidae: Probethylinae) from Brazil, with description of a new species

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Key words: *Probethylus*; Hymenoptera; Sclerogibbidae; Brazil; neotropical; new species; key.

A new species of the genus *Probethylus* Ashmead, 1902, from Brazil is described, illustrated and keyed.

Introduction

The family Sclerogibbidae Ashmead, 1902, is a small family comprising about 10 valid and described species, which are classified in seven genera belonging to three subfamilies: Caenosclerogibbinae Argaman, 1988 (monotypic and only one species known), Probethylinae Argaman, 1988, and Sclerogibbinae Ashmead, 1902. Sclerogibbidae are rarely collected solitary or gregarious ectoparasitic koinobionts on nymphal or adult Embioptera, and are present in arid and semiarid habitats in all main zoogeographic areas (Argaman, 1988; Hanson & Gauld, 1995). The only known genus from the New World is *Probethylus* Ashmead, 1902, which also occurs in Australia. In this paper we give the first record of the genus for Brazil.

Key to males of the genus *Probethylus* Ashmead

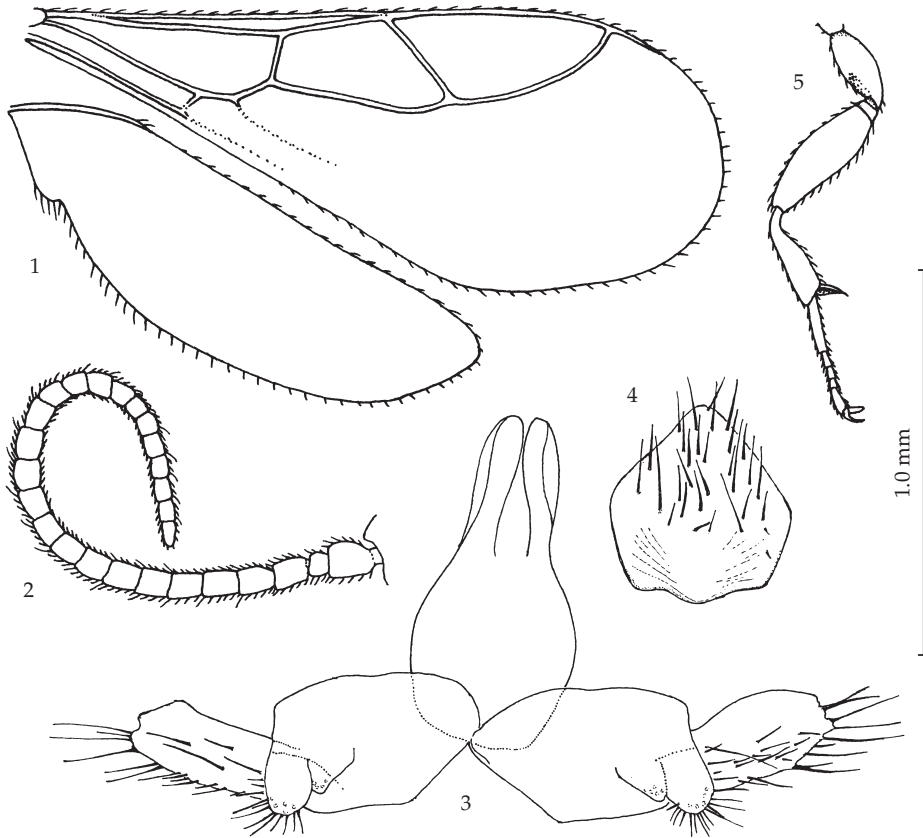
1. First submarginal cell hardly longer than wide and vein 1-SR+M curved; fore femur strongly swollen; notauli complete posteriorly; head and mesonotum shagreened and slightly punctate *P. callani* Richards, 1939
- First submarginal cell distinctly longer than wide and vein 1-SR+M straight or nearly so (fig. 1); fore femur less swollen (fig. 5); notauli absent posteriorly; head and mesonotum shiny and punctate or reticulate 2
2. Vein SR1 comparatively strongly bent; propodeum evenly reticulate-punctate, without irregular rugosities; mesoscutum reticulate-punctate; [antenna with 21-23 segments] *P. schwarzi* Ashmead, 1902
- Vein SR1 weakly curved (fig. 1); propodeum with irregular rugosities between punctures; mesoscutum finely punctate 3
3. Vein r of fore wing about as long as vein 1-SR, first submarginal cell parallel-sided; hind tibia brown apically *P. mexicanus* Richards, 1939
- Vein r fore wing distinctly longer than vein 1-SR (fig. 1); first submarginal cell distinctly widened apically (fig. 1); hind tibia yellow apically
..... *P. brandaoi* spec. nov.

Probethylus brandaoi spec. nov.
(figs 1-5)

Material.— Holotype, ♂ (DCBU), "Sete Lagoas, Minas Gerais, Brasil, 17.ix.1999, W.J.R. Matrangolo col. in Malaise trap". Paratypes (31 ♂♂; DCBU, RMNH, MZUSP), topotypic, but 6.ix.1999, 17.ix.1999, 15.x.1999, 29.x.1999, 26.xi.1999, 27.iii.2000, 30.v.2000, 12.vi.2000, 10.vii.2000, 25.vii.2000, 8.viii.2000, 4.ix.2000; 1 ♂, "Fazenda Canchim, São Carlos, SP, Brasil, 30.viii.2000, L.A. Joaquim, col. in Malaise trap".

Male.— Length of body 2.1-3.0 mm, of fore wing 1.8-2.0 mm.

Head.— Slightly transverse, shiny, finely punctate; antennae attached under a small transverse plate protruding from frons; inner orbits sub-parallel, as long as broad; ocelli in an equilateral triangle, posterior ocelli separated from occiput by their diameter; eyes large, pubescent, about a half as wide in dorsal view as distance between them; antennae pubescent and with 25-26 segments (fig. 2).



Figs 1-5, *Probethylus brandaoi* spec. nov., ♂ paratype. 1, wings; 2, antenna; 3, genitalia; 4, ninth sternite; 5, fore leg.

Mesosoma.— Pronotum, mesonotum and scutellum dorsally finely punctate, scutellar sulcus distinct, smooth; notaulices absent posteriorly; scutellum as long as the mesonotum; metanotum narrow; propodeal surface coarsely granulate; mesopleuron finely granulate; mesosternum centrally with a strong longitudinal depression. Wings as in fig. 1.

Metasoma.— Surface shiny, flattened dorsally, as long as mesosoma; ninth sternite broad without anterior stalk (fig. 4), covered with irregularly arranged bristles; with gonostipes and gonosquama bearing a continuous series of bristles, volsella consisting of two lobes, with apical bristles; parameres narrow, aedeagus rounded distally (fig. 3).

Colour.—Black; fore and middle tibiae, hind tibia apically and tarsus pale yellow; tegulae fuscous, antenna light brown basally, brown apically; wing membrane hyaline, venation pale brown.

Female.— Unknown.

Distribution.— Brazil (SP).

Etymology.— The species is named of our colleague and hymenopterist Carlos Roberto Ferreira Brandão (Museu de Zoologia da Universidade de São Paulo).

Acknowledgments and abbreviations

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DCBU stands for Universidade Federal de São Carlos, Departamento de Ecologia e Biologia Evolutiva, São Carlos, SP, Brasil; RMNH for Natural History Museum, Leiden, Netherlands; and MZUSP for Museu de Zoologia da Universidade de São Paulo, São Paulo, SP, Brasil.

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