



## Discovery of the spider wasp genus *Sphictostethus* Kohl, 1884 (Hymenoptera: Pompilidae: Pepsinae) in New Guinea, with description of two new species

VALERY M. LOKTIONOV<sup>1,2</sup> & ARKADY S. LELEJ<sup>1</sup>

<sup>1</sup>Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok-22, 690022, Russia. E-mail: [pompilidaefer@mail.ru](mailto:pompilidaefer@mail.ru), [lelej@biosoil.ru](mailto:lelej@biosoil.ru)

<sup>2</sup>Corresponding author. E-mail: [pompilidaefer@mail.ru](mailto:pompilidaefer@mail.ru)

### Abstract

Two new species of the genus *Sphictostethus* Kohl, 1884 are described and illustrated from New Guinea (Indonesia: West Papua). Both species, *S. papua* Loktionov & Lelej, **sp. nov.** and *S. arfak* Loktionov & Lelej, **sp. nov.** differ from congeners by their peculiar head and clypeus shape, the presence of tubercles on the mesopleuron and propodeum, and the well-developed metasomal petiole. The genus *Sphictostethus* is newly recorded from New Guinea as a new northernmost border for their distribution within the Australian Region. An addition to the key of Australian species is given.

**Key words:** Pepsinae, Priocnemini, new species, Australian Region, Indonesia, West Papua

### Introduction

The genus *Sphictostethus* Kohl, 1884 currently includes 29 species: eleven from the Neotropics (Chile and Argentina) (Roig Alsina 1987) and 18 from the Australian Region (16 from New Zealand and Australia (Harris 1987, Elliott 2007, Krogmann & Austin 2011), and the two new species described below from New Guinea). The genus shows a restricted southern hemisphere distribution (except Afrotropics and Oriental region). It was established by Kohl (1884) with *Pompilus gravesii* Haliday, 1836 from Chile as the type species, and currently belongs to the tribe Priocnemini Banks, 1934 of the subfamily Pepsinae Lepeletier de Saint-Fargeau, 1845. Townes (1957) considered *Sphictostethus* as a subgenus of *Priocnemis* Schiødte, 1837, but later Harris (1987) resurrected *Sphictostethus* as a genus and included three species which are New Zealand endemics. Harris (1987) also cited *Sphictostethus* Kohl as occurring in New Guinea but did not reference any literature or material to support this distribution. Roig Alsina (1987) summarized the knowledge of the genus in South America and recognized 11 species from Chile and Argentina. Krogmann & Austin (2011), when revising the Australian members of the genus, discovered 13 species in the continent, nine of these were newly described by them.

The examination of the Pompilidae collection deposited in the Biologiezentrum des Oberösterreichischen Landesmuseums (Linz, Austria) has revealed two unknown species of the genus from New Guinea. Herein we describe these new species and expand the distribution of the genus to include New Guinea as a new northernmost border for their distribution within the Australian Region.

### Materials and methods

The holotypes of the two new species are deposited in the Biologiezentrum des Oberösterreichischen Landesmuseums, Linz, Austria [OLL]. Material on the nine species from the Naturkunde Museum, Berlin (*Sphictostethus apogonus* (Kohl, 1884), ♀ ♂, Chile; *S. flavipes* (Guérin-Ménéville, 1838), ♀ ♂, Chile; *S. gravesii* (Haliday, 1836), ♀ ♂, Chile), and from OLL (*S. gadali* Krogmann & Austin, 2011, ♀, Australia; *S. infandus* (Smith, 1868), ♀ ♂, Australia; *S. isodontus* Roig Alsina, 1987, ♀, Argentina; *S. minus* (Kohl, 1905), ♀, Argentina;