

## First record of Stephanidae (Hymenoptera) from New Caledonia, with descriptions of four new species of *Parastephanellus* Enderlein

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### Abstract

The parasitoid wasp family Stephanidae is recorded for the first time from New Caledonia, and four new species are described: *Parastephanellus delicatus* Aguiar, n. sp., *P. khogis* Aguiar, n. sp., *P. mouensis* Aguiar, n. sp., *P. sarramea* Jennings, n. sp. Although recorded from just a few specimens, these species appear to be restricted to the moist evergreen rainforest areas of the main island of Grande Terre. A key is provided to distinguish the species, as well as information on their distribution and possible relationships. A brief discussion on the generic limits of *Parastephanellus* is presented.

**Key words:** Taxonomy, *Profoenatopus*, parasitoids, Pacific, Australia

### Introduction

The French Overseas Territory of New Caledonia is located in the southwest Pacific about 1,200 km east of Queensland, Australia (Fig. 1). It separated from Australia about 65 million years before present (MYBP) and reached its present position around 50 MYBP (see Coleman 1980; Raven 1980; Yan & Kroenke 1993). The main island, Grande Terre, is dominated by a chain of high mountains that run along its entire length, comprising numerous peaks above 1,000 m. The island's geography and climate have resulted in a wide range of vegetation types: maquis vegetation, a low, sclerophyllous, evergreen, heath-like formation largely restricted to ultrabasic substrates; moist evergreen rainforest found principally in the east and the mountainous centre of the island where rainfall is highest; and remnant stands of sclerophyllous forest found between sea level and about