



## The male of *Ascorhynchus constrictus* Stock, 1997 (Arthropoda: Pycnogonida), with further new records of deep-sea pycnogonids from New Caledonia, the Solomon Islands and Vanuatu

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### Abstract

Deep-sea pycnogonid material collected during the N/O *Alis* Campagnes Norfolk 2 to New Caledonia in 2003 and Solomon 2 to the Solomon Islands in 2004, together with two samples from the BOA0 and BOA1 Campagnes to Vanuatu in 2004–2005, has been analyzed. This includes only the second collection of deep-sea pycnogonids from the Solomon Islands. The material includes 22 specimens from seven species from New Caledonia, taken at depths from 265 to 1150 m, 95 specimens from 14 species from the Solomon islands, at depths from 336 to 1218 m, and two specimens of one species from Vanuatu (864–927 m depth). The first male of *Ascorhynchus constrictus* is described, including the first description of the anterior legs. A new species of *Ascorhynchus* is partially described, but not named owing to its incompleteness. Seven of the species are new to the Melanesia region, including a notable range-extension for *Colossendeis tasmanica*. The local zoogeography of these deep-water species is discussed.

**Key words:** New Caledonia, Solomon Islands, Melanesia, Pycnogonida, *Ascorhynchus*, *Bathypallenopsis*, *Cilunculus*, *Colossendeis*, *Pallenopsis*

### Introduction

The deeper-water pycnogonid fauna of the Melanesian Island systems has been studied intensively over the last two decades as a result of the extensive material collected by cruises from the Paris Museum. These studies have revealed a high diversity, and a large number of new species most of which are currently endemic to this island system, together with records of the more-widespread panoceanic species of the deep-water genera *Colossendeis* Jarzynsky, 1870 and *Bathypallenopsis* Stock, 1974.

The earlier pycnogonid material has been reported by Stock (1991; 1997) and Bamber (2000; 2004a; 2004b). Bamber (2004b) has summarized the history of pycnogonid recording from this region, which, while concentrated to an extent on New Caledonia, has also covered Vanuatu, the Solomon Islands, the Loyalty Islands, Fiji, Tahiti and the Marquesas; this same paper summarized the known pycnogonid fauna of the Melanesia-Micronesia-Polynesia region.

The present paper analyzes material collected during the N/O *Alis* Campagnes Norfolk 2 to New Caledonia in 2003 and Solomon 2 to the Solomon Islands in 2004, together with two samples from the BOA0 and BOA1 Campagnes to Vanuatu in 2004–2005. This material includes only the second collection of deep-sea pycnogonids from the Solomon Islands (after Bamber, 2004b).

The material includes 22 specimens from seven species from New Caledonia, at depths from 265 to 1150 m, 95 specimens from 14 species from the Solomon islands, at depths from 336 to 1218 m, and two specimens of one species from Vanuatu (864–927 m depth). Of the total of 19 species recorded, two are recorded for only the second time (in one case allowing for the completion of the description of *Ascorhynchus constrictus* Stock, 1997), one is a new species of *Ascorhynchus*, although the damage to the only specimen precludes full description and naming, and a number of specimens represent significant range extensions, contributing to the seven species newly recorded for the Melanesia region.