



## Two new species of *Sericosura* Fry & Hedgpeth, 1969 (Arthropoda: Pycnogonida: Ammotheidae), and a reassessment of the genus

ROGER N. BAMBER

The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. E-mail: R.Bamber@artoo.co.uk

### Abstract

During analysis of the benthic pycnogonid fauna of the Irish Sea collected by the HABMAP project, a specimen representing an hitherto undescribed species of the genus *Sericosura* was discovered, representing the shallowest record for the genus, and the first Atlantic record away from oceanic ridges. The new species, *Sericosura conta*, is more compact than the seven species previously described, and has a much shorter chelifore scape. It is the only species of *Sericosura* outside the Pacific Ocean to have a nine-articled palp. Three specimens of a second new species, *Sericosura hedgpethi*, were collected by NIWA from a cold-seep site on the Hikurangi Margin. This New Zealand species has a seven-articled palp, and, uniquely for the genus, is entirely without chelifora. The genus is reviewed, *Ammothea verenae* is reassigned to *Sericosura*, and an identification key to males and females of the nine known species is given.

**Key words:** Sea-spider, chemosynthetic habitat, hydrothermal vents

### Introduction

The pycnogonid genus *Sericosura* Fry & Hedgpeth, 1969 (Ammotheidae) (including *Anisopes* Turpaeva, 1998) comprises a number of species apparently obligately associated with hydrothermal vents or other chemosynthetic habitats. This genus is close to *Ammothea* Leach, 1814, but is distinguished, *inter alia*, by the articulation at the base of the abdomen, and the proximal location of the femoral cement-gland tube in males (distal in *Ammothea*) (*vide* Bamber 2006). Recently, Child (2000) described *S. dissita* from the Endeavour Segment of the Juan de Fuca Ridge, a species with a mid-dorsal cement-gland-tube, but otherwise clearly congeneric with other *Sericosura* species, illustrating the variability of this feature in the genus.

One species of *Ammothea*, *A. verenae* Child, 1987 (incl. *Scipiolus thermophilus* Turpaeva, 1988) is also commonly recorded at hydrothermal vent sites in the north-east Pacific, on the Juan de Fuca, Gorda and Explorer Ridges (Bamber 2006), but, despite close morphological similarity, was not placed in *Sericosura* by Child (1987) as there was no evidence of a proximal cement-gland-tube: indeed, no cement-gland-tube has yet been described for this species. It is, however, necessary to compare any new putative *Sericosura* material with this species, as well as to reconsider its generic attribution.

The HABMAP project, a three-year seabed mapping project covering the southern part of the Irish Sea, run by the National Museum of Wales, surveyed the bottom fauna of a number of regions on the Irish and Welsh coasts of the Irish Sea, and in the St Georges Channel. Their material included over 1000 specimens of pycnogonid of seven species, six being well-known for the region. However, the discovery of a specimen of *Sericosura* in shallow water in the western Irish Sea off Arklow, Ireland, was entirely unexpected. The specimen was distinct from the known species of this genus, and is described herein.

The IFM GEOMAR Expedition from the National Institute of Water and Atmospheric Research (NIWA) collected material from the Hikurangi Margin, including three specimens of a further undescribed species of *Sericosura*, which is also described below.