

Astacilla boreaphilis sp. nov. (Crustacea: Isopoda: Valvifera) from shallow and deep North Atlantic waters

BENTE STRANSKY¹ & JÖRUNDUR SVAVARSSON²

¹University of Hamburg, Biocenter Grindel and Zoological Museum, Martin-Luther-King Platz 3, 20146 Hamburg, Germany.

²Institute of Biology, University of Iceland, Askja–Natural Science Building, Sturlugata 7, 101 Reykjavík, Iceland.

Abstract

Astacilla boreaphilis sp. nov. is described from shallow and deep waters off Iceland and Greenland. *A. boreaphilis* sp. nov. is easily distinguished from all but one of the *Astacilla* species recorded from the North Atlantic by the absence of eyes and from all other *Astacilla* species by the pattern of the spines on the body. The species shows pronounced sexual dimorphism. The species occurs at depths between 219 and 1809 m and at temperatures between 2.4°C and 7.2°C. The species is therefore restricted to Atlantic Water (AW), characterizing the area south of the Greenland–Iceland–Færoe Ridge and to Atlantic Water presumably diluted by cold water masses from the Nordic Seas. The depth range in the area differs locally and may be limited by cold water currents crossing the Ridge.

Key words: Isopoda, Arcturidae, *Astacilla*, Iceland, Greenland

Introduction

The Arcturidae Dana, 1849 (Crustacea, Isopoda, Valvifera) are a bizarre group of filter-feeding benthic isopods (Poore 2001). *Astacilla* Cordiner, 1793 is a cosmopolitan genus, with 32 species described worldwide. Seven species are known from the North East Atlantic, these being *A. arietina* Sars, 1882, *A. bocagei* Nobre, 1903, *A. granulata* (Sars, 1877), *A. caeca* Benedict, 1898, *A. intermedia* (Goodsir, 1842), *A. longicornis* (Sowerby, 1806) and *A. pusilla* (Sars, 1873). These species are widely distributed from the shelf down to the deep-sea, except *A. caeca*, which has only been found from depths between 2790–3340 m (Kussakin 1982).

One of the northernmost distribution areas of *Astacilla* is the continental slope around