Zootaxa 534: 1–12 (2004)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

534

Chiridota heheva, new species, from Western Atlantic deep-sea cold seeps and anthropogenic habitats (Echinodermata: Holothuroidea: Apodida)

DAVID L. PAWSON & DORIS J. VANCE

National Museum of Natural History, Mail Stop MRC163, Smithsonian Institution, Washington DC 20013-7012. E-mail: pawson.david@nmnh.si.edu

Abstract

Chiridota heheva new species is described from cold seeps off Georgia and Florida, a shipwreck off Georgia, and an artificial wood-block habitat near Puerto Rico, in bathyal-abyssal depths of 2,200–3,300 meters. *C. heheva* is similar in some respects to *C. hydrothermica* Smirnov & Gebruk from Western and Southeastern Pacific hydrothermal vents, but it differs in structure of the tentacles and in color.

Key words: *Chiridota heheva*, cold seeps, Western Atlantic, Holothuroidea, Apodida

Introduction

The holothuroid Order Apodida comprises approximately 215 species. Most are typically known as shallow-water dwellers, but increasing exploration is revealing the presence of a spectacular and diverse deep-sea fauna of apodids (for example, see Belyaev & Mironov, 1977; Gage & Billett, 1986; Smirnov, 1998; Smirnov et al., 2000), some with interesting life histories (for example Pawson et al., 2003), and some occupying very specialized habitats (Hecker, 1985; Smirnov et al., 2000; Van Dover et al., 2002; Van Dover et al., 2003).

Since their initial discovery more than two decades ago, hydrothermal vents (Corliss et al., 1979) and cold seeps (Paull et al., 1984) have been found to support bizarre and diverse chemosynthetic communities on the deep-sea bed. Echinoderms are not usually common at vent or seep sites, but there are some exceptions, such as the ophiuroid *Ophioctenella* (Tyler *et al.*, 1995) and worm-like members of the sea cucumber genus *Chiridota*. Smirnov et al. (2000) provide a detailed review of records of echinoderms at vents and seeps, and they describe a new C*hiridota* species from Pacific Ocean hydrothermal vents.

Accepted by Z.-Q. Zhang: 28 May 2004; published: 11 Jun. 2004