Zootaxa 3115: 21–28 (2011)
www.mapress.com/zootaxa/

Article

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

Speleonectes williamsi, a new species of Remipedia (Crustacea) from the Bahamas

TAMARA R. HARTKE[1,2], STEFAN KOENEMANN[3] & JILL YAGER[4]
(Authors in alphabetical order)
[1]*Institute for Animal Ecology and Cell Biology, University of Veterinary Medicine Hannover, Bünteweg 17d, D-30559 Hannover, Germany. E-mail: trhartke@gmail.com*
[2]*Biology Department, Northeastern University, 134 Mugar Hall, 360 Huntington Avenue, Boston, MA 02115*
[3]*Section of Biology, Science and Technology, University of Siegen, Adolf-Reichwein-Str. 2, D-57068 Siegen, Germany. E-mail: koenemann@biologie.uni-siegen.de*
[4]*Research Associate, Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington DC 20560. E-mail: jill.yager@gmail.com*

Abstract

We describe a new species of the genus *Speleonectes* (Crustacea, Remipedia, Nectiopoda) from an anchialine cave on Grand Bahama Island in the northern Bahamas. *Speleonectes williamsi* **n. sp.** is morphologically highly similar to *Speleonectes emersoni* from the Dominican Republic. However, morphological differences between the two species were detected in dissected body parts, such as the setal patterns of the antennae and trunk limbs, the terminal claws of maxillae and maxillipeds, and the frontal filaments.

Key words: remipede, cryptic species, pseudo-cryptic species, glands, Speleonectidae

Introduction

The crustacean class Remipedia (Yager, 1981) currently consists of 24 described species in three families. The largest of these families, Speleonectidae Yager, 1981 is made up of 18 species in four genera, *Speleonectes* Yager, 1981, *Lasionectes* Yager and Schram, 1986, *Cryptocorynetes* Yager, 1987, and *Kaloketos* Koenemann et al., 2004. This diverse family is both globally distributed and relatively speciose within the Bahamas region, the center of remipede diversity. Confamilial and congeneric sympatry is remarkably common (Neiber et al. 2011) considering the narrow ecological niches available in anchialine cave ecosystems.

In addition to the obvious morphological divergence between many species, morphologically highly similar but genetically divergent "cryptic" species are now coming to light (Koenemann et al. 2009). Here we describe a new species, *Speleonectes williamsi*, from the Bahamas. These specimens are morphologically very similar to *S. emersoni* found in the Dominican Republic, however, careful examination revealed morphological differences between the two species, and highlights the problem of diagnostic characters in Remipedia.

Systematics

Speleonectes williamsi, new species

Type locality. Sagittarius Cave, Sweetings Cay (N 26.9, W -77.8), Grand Bahama Island, Bahamas.

Type material. Holotype (US Natural History Museum 1155294), 8.9 mm. Paratype 1 (private collection SK, ID: BH 51), 10.2 mm, dissected for description. Paratype 2 (private collection SK, ID: BH 52), 8.5 mm, dissected for description. Paratype 3 (private collection SK, ID: BH 53), 8.0 mm. Paratype 4 (ID: BH 54), 8.1 mm, used for

Accepted by K. Meland: 19 Aug. 2011; published: 1 Dec. 2011