



***Godzilliognomus schrami*, a new species of Remipedia (Crustacea) from Eleuthera, Bahamas**

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Abstract

Godzilliognomus schrami, a new species of the crustacean class Remipedia, Yager, 1981 is the second species assigned to the genus. The new species, with an average body length of 6.8 mm, was collected from an anchialine cave on the Bahamian island of Eleuthera. *Godzilliognomus schrami* can be distinguished from the other species in the genus, *Godzilliognomus frondosus* Yager, 1989 by narrower and less trapezoidal tergites, frontal filaments that differ regarding the shape and insertion of the medial process, and dorsal antennular rami composed of only ten segments.

Key words: Godzilliidae, anchialine caves, blue holes

Introduction

During a diving expedition to investigate the biology of anchialine and marine caves in Eleuthera, Bahamas, a new species of remipede belonging to the previously monotypic genus *Godzilliognomus* was discovered and described based on eleven specimens collected from an anchialine cave, Windermere Abyss, in August 2007. *Godzilliognomus schrami* n. sp. brings the number of described species of extant remipedes to 24 and represents the fifth species from the family Godzilliidae. Like its only congener, *Godzilliognomus frondosus* Yager, 1989, *G. schrami* possesses the lower limit of 16 trunk somites observed in adult remipedes (Koenemann et al. 2006) and is one of the smallest species.

While *Godzilliognomus frondosus* occurs in several anchialine caves on the islands of Grand Bahama and Abaco on the Little Bahama Bank, *G. schrami* inhabits only a single cave on Eleuthera on the Great Bahama Bank (Fig. 1). *G. schrami* is the second species of remipede, after *Cryptocorynetes elmorei* Haserli, Koenemann, Iliffe, 2010, to be described from anchialine blue holes on Eleuthera.

The Bahama Banks are made up of limestone of shallow-water origins that have been deposited since the Early Cretaceous, reaching a depth of at least 4500 m. The Great and Little Bahama Banks are separated by the Northeast (up to 8700 m deep) and Northwest (up to 5200 m deep) Providence Channels that have been in existence since the earliest stages of the formation of the Bahamas. The presence of stygobiotic remipede species from the same genus on both banks implies relatively recent dispersal events through open waters and/or the deep sea, or ancient cave colonization that occurred while the banks were initially forming during the Cretaceous coupled with continuing isolation of populations.