

Revision of the Bahamian cave-fishes of the genus *Lucifuga* (Ophidiiformes, Bythitidae), with description of a new species from islands on the Little Bahama Bank

PETER R. MØLLER¹, WERNER SCHWARZHANS², THOMAS M. ILIFFE³ & JØRGEN G. NIELSEN¹

¹Zoological Museum, University of Copenhagen, Universitetsparken 15, DK-2100 Copenhagen Ø, Denmark.
E-mail: pdrmoller@smm.ku.dk

²Ahrensburgerweg 103 D, 22359 Hamburg, Germany. E-mail: wwschwarz@aol.com

³Department of Marine Biology, Texas A&M University at Galveston, Galveston, TX 77553–1675, U.S.A.
E-mail: iliffe@tamu.edu

Abstract

Since the description of the Bahamian cave-fish *Lucifuga spelaeotes* Cohen & Robins, 1970, which was based on two specimens from New Providence Island, the species has been observed and/or collected several times in marine blue-holes and inland caves on various Bahamian Islands. Hitherto, all *Lucifuga* records from the Bahamas have been referred to *L. spelaeotes*, but examination of 50 specimens (42–166 mm SL) collected at 7 different islands showed that two species are represented in the Bahamas: 44 specimens from Berry, New Providence, Eleuthera, Great Exuma and Long Island belong to *L. spelaeotes*, whereas 6 specimens from Grand Bahama and Abaco Islands are referable to *L. lucayana*, new species. The new species is here described and compared to the material of *L. spelaeotes*, which includes specimens from several hitherto unpublished locations. The two species are well separated from the Cuban species in number of caudal finrays (10 vs. 8), size of eye (0.7–1.8 vs. 0.0–0.3 % SL) and number of vertebrae (50–55 vs. 45–48). The Bahamian species differ from each other mainly in head squamation, palatine dentition, number of finrays and pigmentation of the three elongated gill-rakers. *Lucifuga lucayana* is geographically separated from *L. spelaeotes* by the deep waters of the Northeast and Northwest Providence Channels.

Key words: Viviparous brotulas, Bahamas, anchialine caves, blue holes, cave-fishes

Introduction

Our knowledge about the bythitid cave-fishes of the genus *Lucifuga* Poey was summed up by Cohen & McCosker (1998) and more recently in a FAO species catalogue of ophidiiform fishes (Nielsen *et al.* 1999). The genus was formerly split in two, based on presence