



First report of *Aulopus* (Teleostei: Aulopidae) from Southwestern Atlantic, with a review of records and a key to Western Atlantic Aulopoidei species

ALFREDO CARVALHO-FILHO^{1,4}, GUY MARCOVALDI², CLÁUDIO L. S. SAMPAIO³,
M. ISABEL G. PAIVA² & LUIZ A. G. DUARTE²

¹Fish-Bizz Ltda. Rua Maria Garcez, 39, São Paulo, SP, 05424-070, Brasil

²Projeto Tamar-ICMBio. Avenida do Farol Garcia D'Ávila, s/n, Praia do Forte, Mata de São João, BA, 48280-000, Brasil

³Universidade Federal de Alagoas, Unidade de Ensino Penedo. Av. Beira Rio s/n°, Centro Histórico, Penedo, AL. 57.200-000

⁴Corresponding author. E-mail: alfie@telnet.com.br

Abstract

In this second paper dedicated to report on deep-sea fishes from Brazilian waters, mainly from Bahia, the presence of one family and three species of Aulopoidei is reported for the first time from Brazilian waters: the aulopid *Aulopus filamentosus* (royal flagfin), the synodontids *Saurida normani* and *Synodus poeyi* (shortjaw lizardfish and offshore lizardfish, respectively). The presence of *Synodus saurus* and *Saurida suspicio* in Brazilian waters is discussed, and a key to the Western Atlantic Aulopoidei is provided.

Key words: Lizardfishes, flagfin, *Aulopus*, *Saurida*, *Synodus*, Aulopidae, Synodontidae, deep-sea fishes

Introduction

According to Davis (2010), the world-wide marine and usually deep-sea, benthic or pelagic Aulopiformes order, contains 16 families, split in 3 suborders of extant taxa: Alepisauroidei (Alepisauridae, Bathysauridae, Bathysaurooididae, Bathysauropsidae, Chlorophthalmidae, Evermannellidae, Giganturidae, Ipnopidae, Notosudidae, Paralepididae, Scopelarchidae and Sudidae), Paraulopoidei (Paraulopidae), and Aulopoidei (Aulopidae, Pseudotrichonotidae, and Synodontidae). The latter suborder was represented in Brazilian waters only by the Synodontidae, with twelve species belonging to 4 genera: *Bathysaurus* (2), *Saurida* (4), *Synodus* (5), and *Trachinocephalus* (1) (Roux, 1973; Carvalho-Filho, 1999; Menezes & Figueiredo, 2003); *Bathysaurus*, formerly recognized within the Synodontidae, is now placed in its own family (Davis, 2010). Thus, until now, all the Aulopoidei from Brazilian waters belonged to the family Synodontidae, distributed in three genera and ten species: *Saurida brasiliensis*, *Saurida caribbaea*, *Saurida normani*, *Saurida suspicio*, *Synodus foetens*, *Synodus intermedius*, *Synodus poeyi*, *Synodus saurus*, *Synodus synodus*, and *Trachinocephalus myops*.

The family Synodontidae is distributed worldwide, and has about 74 species from four genera and two subfamilies: Synodontinae, with *Synodus* (44) and *Trachinocephalus* (3); and Harpadontinae, with *Harpadon* (5) and *Saurida* (21). For species account, see Russell (2002), Polanco & Acero (2005), Prokofiev (2008a), and Froese & Pauly (2010). Ten species are reported from the Western Atlantic and until now all of them were believed to be present in Brazilian waters (Roux 1973; Carvalho-Filho, 1999; Russell, 2002; Moura 2003). The monotypic genus *Trachinocephalus* is considered by Polanco & Acero (2005) as possible to be, in reality, a complex of at least three species; and Davis (2010) suggests that *T. myops* (Forster, 1801) “is a member of the genus *Synodus*, although further study is needed that would include a broader taxonomic sampling of the...species of *Synodus*”.

On the other hand, the much less speciose family Aulopidae has about 14 species that belong to the genus *Aulopus* (Davis, 2010). The previously recognized genera *Hime* and *Latropiscis*, (Thompson, 1998; Nelson,