



A new cleaner species of *Elacatinus* (Actinopterygii: Gobiidae) from the Southwestern Atlantic

IVAN SAZIMA^{1,4}, ALFREDO CARVALHO-FILHO² & CRISTINA SAZIMA³

¹Museu de Zoologia, Universidade Estadual de Campinas, 13083-970 Campinas, SP, Brasil (retired and associated as voluntary researcher). E-mail: isazima@gmail.com.br

²Fish Bizz Ltda. Rua Moncorvo Filho 51, São Paulo, SP, Brasil. E-mail: alfie@telnet.com.br

³Departamento de Parasitologia, Universidade Estadual de Campinas, 13083-970 Campinas, SP, Brasil.

E-mail: csazima@gmail.com

⁴Corresponding author

Abstract

A new species of cleaner goby, *Elacatinus phthirophagus* **sp. n.**, is described from Fernando de Noronha Archipelago, off northeastern Brazil. It differs from its congeners of the putative “*randalli-evelynae*” cleaning clade by the following combination of characters: mouth subterminal, pale (bright yellow in life) elliptical spot on dark snout, width of lateral pale (bright yellow in life) stripe almost equal as eye diameter (slightly narrower in live individuals), light purplish sheen (in life) extending laterally from below eye to tail origin, no blue line (in life) from below eye to end of opercular margin, teeth multiserial on the distal portion of both jaws, males with 3 enlarged and recurved teeth on dentary inner row. The new species was recorded at depths ranging from 3 to 18 m and is ubiquitous in the archipelago islets. It tends cleaning stations on coral heads, sponges, and rocky substrata, with up to 15 individuals present in large stations, particularly those on sponges. *Elacatinus phthirophagus* **sp. n.** was recorded to clean about 30 species of fish clients, including large carnivores such as the shark *Carcharhinus perezii* and smaller carnivores such as the grouper *Cephalopholis fulva*, besides small clients like the planktivorous damselfish *Chromis multilineata* and the zoobenthivorous butterflyfish *Chaetodon ocellatus*. The new species increases to three the number of cleaner gobies recorded for Southwestern Atlantic, one from the coast and two from oceanic islands.

Key words: *Elacatinus*, new species, Gobiidae, reef fish, oceanic islands, Southwestern Atlantic, cleaning symbiosis

Introduction

The reef-dwelling neon gobies of the genus *Elacatinus* *s. s.* (see Taylor & Hellberg 2005) are currently represented by 16 species in the Western Atlantic, most of them known from the Caribbean, with only three species reported south of the equator (Böhlke & Robins 1968, Colin 1975, Guimarães *et al.* 2004, Taylor & Hellberg 2005, Taylor & Akins 2007). Here we describe a new cleaning species of *Elacatinus* from Fernando de Noronha Archipelago, off northeastern Brazil, previously misidentified for *Elacatinus randalli* (Böhlke & Robins) (Sazima & Moura 2000, Guimarães *et al.* 2004, Sazima *et al.* 2004).

Material and methods

Counts and measurements follow Böhlke & Robins (1968). For counts and proportions those of the holotype are given first, followed (in brackets) by range and mean of 16 paratypes. Color description encompasses the