



A new species of snapper (Perciformes: Lutjanidae) from Brazil, with comments on the distribution of *Lutjanus griseus* and *L. apodus*

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Abstract

Snappers of the family Lutjanidae contain several of the most important reef-fishery species in the tropical western Atlantic. Despite their importance, substantial gaps exist for both systematic and ecological information, especially for the southwestern Atlantic. Recent collecting efforts along the coast of Brazil have resulted in the discovery of many new reef-fish species, including commercially important parrotfishes (Scaridae) and grunts (Haemulidae). Based on field collecting, museum specimens, and literature records, we describe a new species of snapper, *Lutjanus alexandrei*, which is apparently endemic to the Brazilian coast. The newly settled and early juvenile life stages are also described. This species is common in many Brazilian reef and coastal estuarine systems where it has been often misidentified as the gray snapper, *Lutjanus griseus*, or the schoolmaster, *L. apodus*. Identification of the new species cast doubt on prior distributional assumptions about the southern ranges of *L. griseus* and *L. apodus*, and subsequent field and museum work confirmed that those species are not reliably recorded in Brazil. The taxonomic status of two Brazilian species previously referred to *Lutjanus*, *Bodianus aya* and *Genyoroge canina*, is reviewed to determine the number of valid *Lutjanus* species occurring in Brazil. Twelve species of *Lutjanus* are now recognized in the western Atlantic, eight of which occur in Brazil (one endemic). A key for the identification of all western Atlantic *Lutjanus* species and their known distributional ranges is also provided.

Key words: *Lutjanus alexandrei* new species; snappers; biogeography; Brazil

Introduction

The fish fauna of the tropical western Atlantic is relatively homogeneous, but recent evidence demonstrates that the southwestern Atlantic holds a considerable number of endemic species (e.g., Menezes *et al.* 1997, 2003). As a result of major collection-building efforts in the last decade, several groups of demersal fishes have been investigated in the southwestern Atlantic, resulting in the identification of new species of myxinids (Mincarone 2000, 2001), elasmobranchs (Gomes *et al.* 2000, Gomes & Paragó 2001), batrachoidids (Menezes & Figueiredo 1998), atherinids (Bemvenuti 1995), grammids (Sazima *et al.* 1998), haemulids (Rocha & Rosa 1999), chaetodontids (Burgess 2001), pomacentrids (Moura 1995, Gasparini *et al.* 1999), labrids (Heiser *et al.* 2000), scarids (Moura *et al.* 2001, Gasparini *et al.* 2003), dactyloscopids (Feitoza 2002), labrisomids (Sazima *et al.* 2002, Guimarães & Bacellar 2002), gobiids (Sazima *et al.* 1997), microdesmids (Gasparini *et al.* 2001), and tetraodontids (Moura & Castro 2002). Several valuable species of Caribbean fishes that were long assumed to extend to Brazil have also been shown to not occur there. Examples include Nassau grouper (*Epinephelus striatus*), hogfish (*Lachnolaimus maximus*), and several parrotfish species (Sadovy & Eklund 1999, Moura *et al.* 2001, Moura & Sazima 2003).

Endemism levels in the tropical southwestern Atlantic are therefore higher than previously supposed (Briggs 1974), encompassing a broad taxonomic spectrum of pelagic (e.g. Menezes 1971), estuarine (e.g. Bemvenuti 1995), demersal (e.g. Menezes & Figueiredo 1998), and reef-associated fishes (e.g. Moura & Saz-