

FISHING RECORD OF *ANISOTREMUS MORICANDI* (PERCIFORMES: HAEMULIDAE), A TROPICAL SHALLOW REEF FISH

REGISTRO DE PESCA DE *ANISOTREMUS MORICANDI* (PERCIFORMES: HAEMULIDAE), UM PEIXE DE RECIFES TROPICAIS RASOS

REGISTRO DE LA PESCA DE *ANISOTREMUS MORICANDI* (PERCIFORMES: HAEMULIDAE), UN PEZ DE ARRECIFES TROPICALES POCO PROFUNDOS

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Abstract

According to IUCN, the Brownstriped grunt *Anisotremus moricandi* is considered as “Least Concern” (LC). However, this species has a very limited distribution range and most of the reefs where it occurs have been exploited for different anthropogenic activities, such as artisanal fishing and tourism. Besides that, *A. moricandi* is amongst the fishes exploited by ornamental trade and artisanal fishing in Brazil. Although some authors consider that *A. moricandi* is not a fishery-targeted specie in northeastern Brazil, recurrent fishing records showing the capture of this species have been observed in coastal reefs of Paraíba, as well as along the Northeast of Brazil.

Keywords: Marine fish; Artisanal fisheries; Coastal reefs; Conservation.

Resumo

Atualmente, de acordo com a IUCN, o peixe recifal *Anisotremus moricandi* figura na categoria “Least Concern” (LC), porém, esta espécie apresenta uma distribuição muito limitada e a maioria dos recifes onde esta ocorre são explorados por diversas atividades antrópicas, como a pesca artesanal e o turismo. Entretanto, *A. moricandi* é listada entre os peixes explorados pelo comércio ornamental e pela pesca artesanal no Brasil. Embora alguns autores citem que *A. moricandi* não é alvo de pescadores no nordeste brasileiro, eventos recorrentes de captura desta espécie são observados em recifes costeiros da Paraíba, assim como ao longo do Nordeste do Brasil.

Palavras-chave: Peixes marinhos; Pesca artesanal; Recifes costeiros; Conservação.

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Resumen

Actualmente, según la IUCN, el pez de arrecife *Anisotremus moricandi* figura en la categoría “Least Concern” (LC), sin embargo, esta especie presenta una distribución muy restringida y la mayoría de los arrecifes donde se encuentra son explotados por diversas actividades antrópicas, como la pesca artesanal y el turismo. No obstante, *A. moricandi* figura entre los peces explotados por el comercio ornamental y la pesca artesanal en Brasil. Aunque algunos autores mencionan que *A. moricandi* no es objetivo de pesca en el noreste de Brasil, se observan eventos recurrentes de captura de esta especie en los arrecifes costeros de Paraíba, así como a lo largo de otras áreas del noreste de Brasil.

Palabras clave: Peces marinos; Pesca artesanal; Arrecifes costeros; Conservación.

INTRODUCTION

The Brazilian coast hosts only three fish species belonging to the genus *Anisotremus*: *A. moricandi* (Ranzani, 1842), *A. virginicus* (Linnaeus, 1758) and *A. surinamensis* (Blotch, 1791), which occur predominantly in coastal reefs (Bernardi et al., 2008). Of these, *A. moricandi* (Fig. 2-a) has the most restricted depth range, occurring in shallow reefs from the Costa Rica to Espírito Santo, Brazil (Jordan and Evermann, 1898; Ribeiro, 1915; Meek and Hildebrand, 1925; Dahl, 1971; Acero and Garzón, 1982; Dias, 2007a; Nunes and Sampaio, 2007). This species is popularly known as “*Avô do pirambú*” and “*Fumeiro*” in the Northeastern (Ferreira and Cava, 2001; Freire and Filho, 2009) and has nocturnal habits, resting in reef crevices during the day (Acero and Garzón, 1982; Dias, 2007a). In Paraíba State, northeastern Brazil, *Anisotremus moricandi* is easily sighted during the day, mainly on reef patches with low coral coverage. This species can be solitary or form small schools (Dias, 2007a; Nunes and Sampaio, 2007).

According to the International Union for Conservation of Nature (IUCN, 2019), *A. moricandi* is listed as “Least Concern” (LC), however most of the reefs where it occurs are affected by anthropogenic activities such as artisanal and recreational fisheries and unregulated tourism, and is also amongst the most exploited reef fishes in the ornamental trade in Brazil (Gasparini et al. 2005; Floeter et al. 2006; Gurjão and Lotufo, 2018). Here, we documented, for the first time, a fishing record focused exclusively on the capture of this species in coastal reefs of Paraíba, Northeast of Brazil.

MATERIAL AND METHODS

The record was made on Cabo Branco reefs (7°8'43.55”S, 34°47'49.37”W) (Fig. 1). This site is located near the coastline and, thus, is partially exposed during low

tides that vary from 0.5m to 3.5m depth (Dias and Gondim, 2015), which makes it easily accessible to fisheries activities. These sandstone reefs consist of calcareous algae such as rhodoliths, some species of sponges, filamentous algae and low coral cover (Dias, 2007b). Artisanal fishery is common in the area and fishes are usually caught with different types of fishing gears like harpoons, gill nets, fishing rod and longline.

RESULTS AND DISCUSSION

This record was observed on March 8th, 2008 during the day. A local fisherman was seen fishing *A. moricandi* for his own use. According to the fishermen, this specie (called by him as a 'Zumbi') has been frequently caught since other fish species became regionally depleted. The fish capture was performed during dive, using harpoon. After catching, the individuals were placed in a rope called anchor, which arrange all caught individuals together for transport (Fig. 2-b, c). Previously, fishing record for this species were performed along the coastal reefs from Pitimbu beach (Paraíba State) and Japaratinga (Alagoas State) (personal observation).

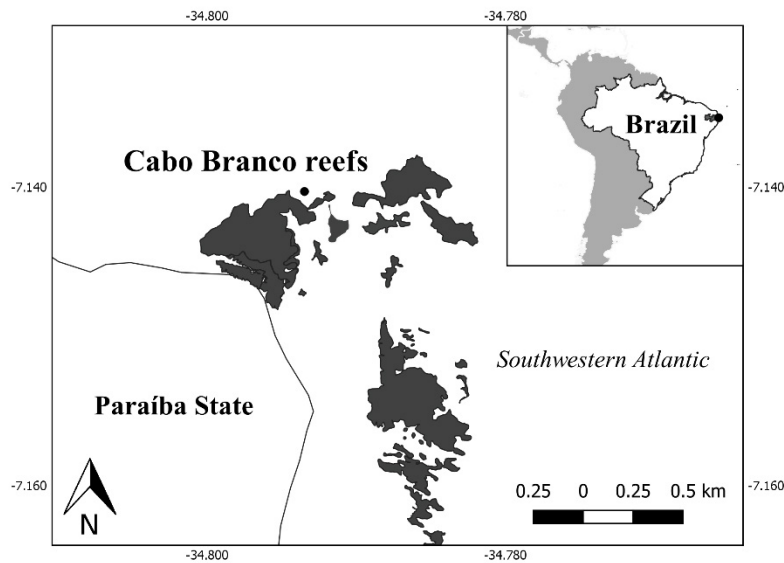


Figure 1. Map of the coastline from Paraíba State, showing the distribution of sandstone reefs (dark grey) at Cabo Branco Beach, João Pessoa.



Figure 2. Individuals of *Anisotremus moricandi* caught by a local fisherman using harpoon, Cabo Branco Beach, João Pessoa, Paraíba, Brazil. **Photo:** TLP, Dias.

Although *A. moricandi* does not have a high commercial value, it was reported as a target specie for the artisanal fishery (Floeter et al., 2006) in the region. Here we reported a fishing record focusing exclusively on this specie in northeastern Brazil, emphasizing its importance for consumption by local fishermen and contrasting Nunes and Sampaio (2007) findings. In Paraíba, according to reports from local fishermen, there has been an increase in the capture rate of small fish, probably as a result of bigger fish depletions in face of population declining over the last decades (Mariano and Rosa, 2010).

Whereas the conservation status of *A. moricandi* is “Least Concern” (IUCN, 2019), further research on the ecology and distribution of this species along the shallow coastal reefs in northeastern Brazil should be carried out in order to generate subsidies for its conservation, once that besides being a target specie for fishery, its habitats have been exposed to different anthropic impacts.

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