



**FIRST RECORD OF RED LIONFISH *Pterois volitans*  
(LINNAEUS, 1758) (SCORPAENIFORMES: SCORPAENIDAE)  
IN THE GREAT AMAZON REEF SYSTEM, STATE OF PARÁ,  
BRAZIL**

**Primeiro registro do peixe-leão-vermelho *Pterois volitans* (Linnaeus, 1758)  
(Scorpaeniformes: Scorpaenidae) no Grande Sistema de Recifes do Amazonas,  
estado do Pará, Brasil**

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**Resumo** Registro de 13 peixes-leão-vermelho *Pterois volitans* (Linnaeus, 1758) coletados em 2021 nas pescarias comerciais de lagosta *Panulirus argus* (Latreille, 1804) e pargo *Lutjanus purpureus* (Poey, 1866) no Grande Sistema de Recifes Amazônicos. O registro fornece informações sobre a primeira ocorrência para a plataforma continental do estado do Pará, profundidade, tipo de pescaria comercial, apetrecho de captura e biometria dos exemplares. Esse novo registro aumenta a distribuição geográfica de *P. volitans* e expande o conhecimento da invasão no Brasil.

**Palavras-chave:** Peixe leão, pescaria comercial, invasão aquática, espécie exótica, lagosta, pargo.

**Abstract** New records of 13 red lionfish *Pterois volitans* (Linnaeus, 1758) collected in 2021 in commercial fisheries for lobster *Panulirus argus* (Latreille, 1804) and snapper *Lutjanus purpureus* (Poey, 1866) in the Great Amazon Reef System. We provide information about the first occurrence in the Amazon continental shelf in Pará State, depth, target fishery, fishing gear and size of the specimens. These records expand the geographic distribution of *P. volitans* and the knowledge about its invasion in Brazil.

**Key words:** Lionfish, commercial fisheries, aquatic invasion, exotic species, lobster, snapper.

## Introduction

This study presents information about the occurrence of the lionfish *Pterois volitans* (Linnaeus, 1758) caught by the lobster and snapper commercial fisheries in the Great Amazon Reef System (GARS), Pará State, Brazil.

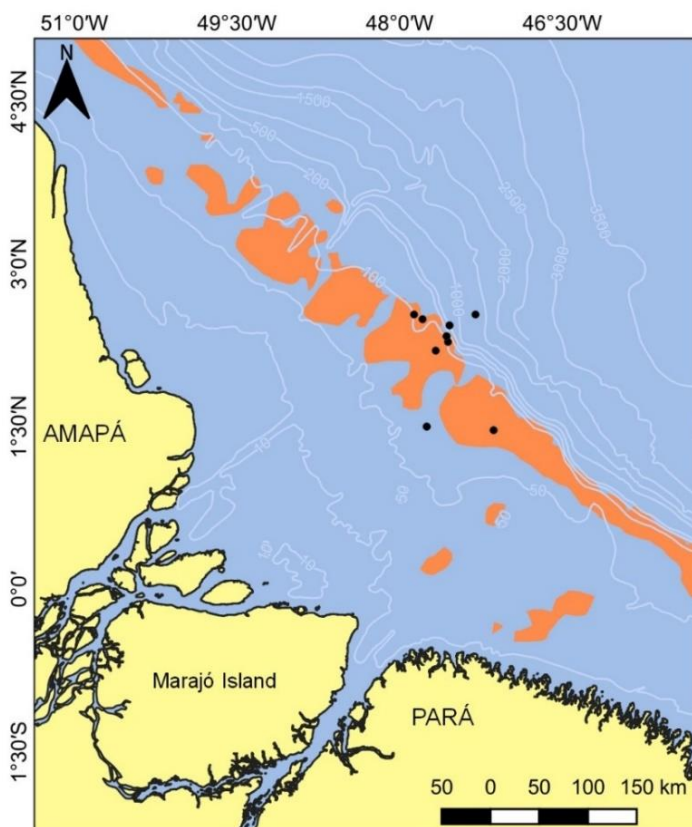
The red lionfish is native from warm and tropical waters of South Pacific and Indian Ocean, including the Red Sea (Liu, 2008), and now, it is present from the US to the Brazilian coast. The wide and fast invasion at the West Atlantic turns the lionfish the most successful invasive marine fish species (Dahl & Patterson III, 2013).

The Great Amazon Reef System (GARS) is a complex consolidated bottom environment formed by living organisms, firstly reported by Collette & Ruetzler (1977). GARS occupies about 9.500km<sup>2</sup>, it is composed by typical mesophotic reefs, found between the depths of 70 and 220 m, built mainly by calcareous algae, sponges and scleractinian corals, potentially covering an area of 56.000 km<sup>2</sup> (Moura et al., 2016).

In this area, it occurs two of the most important commercial fisheries in Brazil: the lobster's *Panulirus argus* (Latreille, 1804), *Parribacus antarcticus* (Lund, 1793) and *Scyllarides delfosi* (Holthuis, 1960) and the snapper's *Lutjanus purpureus* (Poey, 1866) (Costa et al., 2017; Santos et al., 2019).

## Material and Methods

The specimens reported here were collected under the supervision of Center for Research and Management of Fisheries Resources of the North Coast (CEPNOR) as part of a research program about the commercial fisheries at the GARS (Figure 1).



**Figure 1.** Map location of *Pterois volitans* (Linnaeus, 1758) catches, at the Great Amazon Reef System, State of Pará, Brazil.

## Results and Discussion

The thirteen lionfishes were caught from the depths of 60 to 100m in sand, rock and coral bottoms. The mean total body length (TL) was 32.13cm, varying from 27.1 to 37.0 cm. The mean total weight was 463.2g, ranging from 242.0g to 737.0g (Figure 2, Table 1).



**Figure 2.** Red lionfish *Pterois volitans* (Linnaeus, 1758) caught at the Great Amazon Reef System, State of Pará, Brazil.

**Table 1.** Red lionfish *Pterois volitans* (Linnaeus, 1758) specimens reported at the Great Amazon Reef System, State of Pará, Brazil.

Date	Catch site	Latitude	Longitude	Depth (m)	Target Fishery	Fishing gear	Bottom type	Total Weight (g)	Total Length (cm)
2021	PA	02°16'51,6"N	47°33'13,68"W	90	Pargo	Linha pargueira	Areia, pedra e corais	242	27,1
2021	PA	01°28'0,12"N	47°7'59,88"W	70*	Pargo	Manzuá	Areia, pedra e corais	454	32,1
2021	PA	01°30'0"N	47°45'0"W	60*	Lagosta	Caçoeira	Areia, pedra e corais	515	31,1
2021	PA	01°30'0"N	47°45'0"W	60*	Lagosta	Caçoeira	Areia, pedra e corais	422	30,5
2021	PA	02°29'24"N	47°47'19,32"W	97	Pargo	Manzuá	Areia, pedra e corais	737	35
2021	PA	02°31'59,88"N	47°18'0"W	92	Pargo	Manzuá	Areia, pedra e corais	409	37
2021	PA	02°12'0"N	47°40'1,2"W	90*	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°19'59,88"N	47°34'1,2"W	92	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°19'59,88"N	47°34'1,2"W	92	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°19'59,88"N	47°34'1,2"W	92	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°31'59,88"N	47°52'1,2"W	100*	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°25'59,88"N	47°32'24"W	90	Pargo	Manzuá	Areia, pedra e corais	-	-
2021	PA	02°25'59,88"N	47°32'24"W	90	Pargo	Manzuá	Areia, pedra e corais	-	-

\* Profundidade estimada pela isóbata da Carta Náutica.

Previous records for Brazil were made by Ferreira et al. (2015): Arraial do Cabo, Rio de Janeiro, Luiz et al. (2021) - State of Amapá and Fernando de Noronha. Our new record expands the geographical distribution of *P. volitans* and the knowledge about this invasive species in Brazil, relating the first occurrence at the Amazon continental shelf, in Pará State, Brazil.

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