

Report of the sculptured slipper lobster *Parribacus antarcticus* (Lund, 1793) (Decapoda: Scyllaridae) on the Great Amazon Reef System, PA, Brazil

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ABSTRACT

The sculptured slipper lobster *Parribacus antarcticus* (Lund, 1793), Family Scyllaridae Latreille, 1825, is reported for the first time on the Great Amazon Reef System, Pará, Brazil. The specimen, three females and two males, were collected in October and November 2019, at depths from 75.6 up to 101.4 m, by commercial fishing fleet. This report extends the area of occurrence of this specie on northern Brazil.

Keywords: Bycatch; Northern coast; lobster fishery.

Registro da lagosta sapateira *Parribacus antarcticus* (Lund, 1793) (Decapoda, Scyllaridae) no Grande Sistema de Recife da Amazônia, PA/ Brasil

RESUMO

A lagosta sapateira *Parribacus antarcticus* (Lund, 1793), pertencente à família Scyllaridae Latreille, 1825, é relatada pela primeira vez no Grande Sistema de Recifes da Amazônia, Pará, Brasil. Os espécimes, três fêmeas e dois machos, foram coletados nos meses de outubro e novembro de 2019, na faixa de profundidade de 75,6 m a 101,4 m, durante pesca comercial para lagostas. O atual registro amplia o conhecimento da área de ocorrência dessa espécie no Norte do Brasil.

Palavras-chave: Fauna acompanhante, Pesca da lagosta, Litoral Norte.

Lobsters are in the infraorder Achelata Scholtz & Richter 1995, which comprises around 153 fossil and recent marine species in two families: Palinuridae Latreille, 1802, with 62 species, and Scyllaridae Latreille, 1825, with 89 species and two subspecies (DE GRAVE et al. 2009). The family Scyllaridae Latreille, 1825 comprises 4 Subfamilies: Arctidinae Holthuis, 1985, Ibacinae Holthuis, 1985, Scyllarinae Latreille, 1825, and Theninae Holthuis, 1985. The Subfamily Ibacinae Holthuis, 1985 comprises 3 genera: *Evivacus* Smith, 1869, *Ibacus* Leach, 1815 and *Parribacus* Dana, 1852 (CHAN, 2010). The genus *Parribacus* comprises 6 species: *Parribacus antarcticus* (Lund, 1793), *P. caledonicus* Holthuis, 1960, *P. holthuisi* Forest, 1954, *P. japonicus* Holthuis, 1960, *P. perlatus* Holthuis, 1967 and *P. scarlatinus* Holthuis, 1960 (HOLTHUIS, 1991; CHAN 2010; NYBORG; GARASSINO, 2017).

In this study, we report the occurrence of *P. antarcticus* at the coast of Pará State, Brazil. The specimens were caught during commercial lobster fishing operations, supervised by the National Center for Research and Conservation of Northern Marine Biodiversity (CEPNOR). The occurrence locations coincide with the great Amazon reef system (GARS) mapped by Moura et al. (2016), an environment composed by mesophotic reefs, found between 70 and 220m depth (Fig. 1).

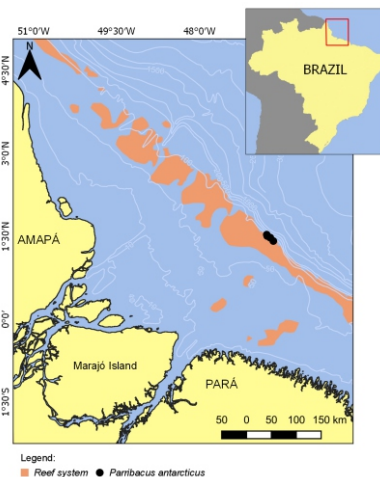


Figure 1. *Parribacus antarcticus* (Lund, 1793). Occurrence at the great Amazon reef system mapped by Moura et al. (2016).

***Parribacus antarcticus* - LUND, 1793:** 22; HOLTHUIS, 1991: 209, 210; CINTRA et al. 1998: 103; SILVA et al. 1999: no page; SILVA et al. 2002: 103; SILVA et al. 2003: 21, 31, 32; PORTO et al. 2005: 86; SILVA et al. 2007: 180; DALL'OCCHO et al. 2007: 47; CRUZ et al. 2013: 337; SILVA et al. 2013: 1089, 1090, 1091, 1092; DUARTE et al. 2016: 378, 379, 383, 387; TAVARES et al. 2017: 157, 161, 167, 168, 169, 170.

Material Examined - Female, Pará State, 01°24'54,504"N 046°39'57,888"W; 75,6 m depth; gillnet; corals, sand and rock bottom; October 12, 2019. Ovigerous female, Pará State, 01°28'36,768"N 046°43'15,240"W; 89,7 m depth; gillnet; corals, sand and rock bottom; October 22, 2019 (Fig. 2). Female, Pará State, 01°31'53,760"N 046°47'50,820"W; 101,4 m depth; gillnet; corals, sand and rock bottom; November 2, 2019. Male, Pará State, 01°28'34,932"N 046°43'26,436"W; 100,0 m depth; gillnet; corals, sand and rock bottom; November 6, 2019. Male, Pará State, 01°30'21,600"N 046°43'38,964"W; 76,6 m depth; gillnet; corals, sand and rock bottom; November 12, 2019.

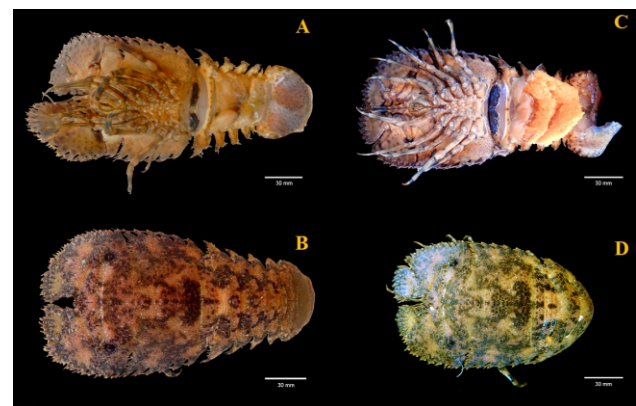


Figure 2. *Parribacus antarcticus* (Lund, 1793). Female ventral (A) and dorsal view (B). Ovigerous female ventral (C) and dorsal view (D) from Great Amazon Reef System, Pará State, Brazil.

Diagnosis - Body very strongly flattened with pebble-like and scale-like sculpture on surface; carapace broader than long its sides very thin and cut into large, flattened, tooth-like triangular projections. Antennae short and broad, scale-like, lacking flagella, their anterior margins cut into moderately large teeth; antennules short and slender. Tail broad, powerful, with a well-developed fan. All legs without pincers,

none of them enlarged (TAVARES, 2002).

Previous distribution – Western Atlantic: from southern Florida through the West Indies and along the northeastern coast of South America to Brazil (Amapá; Ceará; Rio Grande do Norte; Pernambuco, including the oceanic island of Fernando de Noronha; Alagoas; and Espírito Santo States). Indo-West Pacific: from East Africa to Hawaii and Polynesia. (FISCHER, 1978; HOLTHUIS, 1991; COELHO; RAMOS-PORTO, 1998; SILVA et al. 1999). It occurs in shallow tropical waters (up to 130 m), in coral and stone reefs with sandy bottoms. Total length reaches about 200 mm (HOLTHUIS, 1991).

Previous Reports in Brazil - CINTRA et al. 1998: Revizee Program Prospection V: Amapá (01° 03'N, 46° 21'W), 11/05/97, 1 male (63 mm e 6.1 g), deposited at the Crustaceans Laboratory Collection (44.1.1 A), gravel bottom, depth 69m. TAVARES et al. 2017: Trindade Island, Enseada Orelhas, 20°29'40.2"S/29°20'32.9"W, depth 13.9 m; 1 male, carapace length (CL) 91 mm (MZUSP 35271). Ibidem, depth 14.6 m; 1 male, CL 94 mm (MZUSP 35272). Ibidem, depth: 7 m; 1 ovigerous female, CL 11.5 mm (MZUSP 35288).

The lobster fishery at the Amazon continental shelf occurs between 2° N, 47°30' W and 4° N, 49°30' W, the depth is around 60 and 100 m with sand and rock bottom (SANTOS et al. 2019). Five species are the commercial target: Caribbean spiny lobster *Panulirus meripurpuratus* (Giraldes & Smyth, 2016), smoothtail spiny lobster *Panulirus laevicauda* (Latreille, 1817), Brazilian slipper lobster *Scyllarides brasiliensis* Rathbun, 1906, three-spot slipper lobster *S. delfosi* (Holthuis, 1960) and brown spiny lobster *Panulirus echinatus* (Smith, 1869) (ALENCAR et al. 2020).

The report of *P. antarcticus* at great Amazon reef system, in lobster fishery, represents an important addition the knowledge of the area. Knowing the local biota, we are able to reduce the effects of commercial exploitation in sensible areas.

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