

## First record of the cliff crab *Plagusia depressa* (Fabricius, 1775) (Decapoda: Plagusiidae) from the coast of Sergipe, Brazil

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### ABSTRACT

The cliff crab *Plagusia depressa* (Fabricius, 1775) is recorded for the first time from the state of Sergipe, northeastern Brazil. This new record fills the gap in the species distribution between Pernambuco (8°S) and Bahia (12°S).

### KEY WORDS

Distribution, biodiversity, carcinofauna, jetties, NE Brazil

The cliff crab *Plagusia depressa* (Fabricius, 1775), commonly known as “aratu-da-pedra” or “espichado”, has an amphi-Atlantic distribution and inhabits fissures and crevices of rocks, corals, tide pools and jetties (Melo, 1996; Coelho *et al.*, 2004; Almeida and Carvalho, 2014). This species is also often seen clinging to drifting debris, buoys, oil platforms, and ship hulls (Schubart *et al.*, 2001; Almeida and Carvalho, 2014).

Along the Brazilian coast the species was previously recorded from the states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Bahia as well as from the oceanic islands of Saint Peter and Saint Paul, Fernando de Noronha, Rocas Atoll, and Trindade (Melo, 1996; Coelho *et al.*, 2008; Almeida and Carvalho, 2014).

In April 2015, three individuals were caught at a jetty in Atalaia Nova Beach, municipality of Barra dos Coqueiros, state of Sergipe, northeastern Brazil (10°57'13"S 37°01'48"W). Each individual was measured for carapace width (CW) and carapace length (CL), stored in ethanol 70% and deposited

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in the Carcinological Collection of the 'Laboratório de Ecologia Bentônica' at Universidade Federal de Sergipe (NEP-CRUST).

## SYSTEMATICS

### Family Plagusiidae Dana, 1851

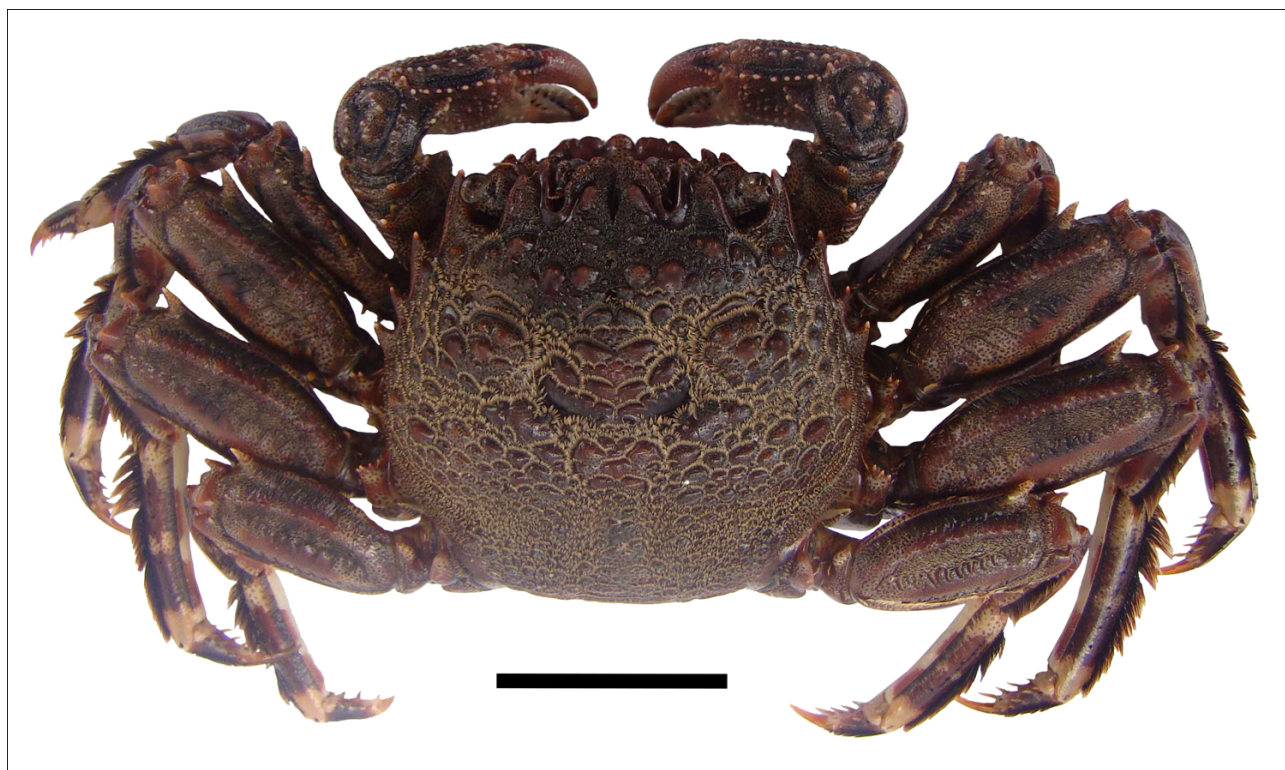
#### *Plagusia depressa* (Fabricius, 1775)

(Fig. 1)

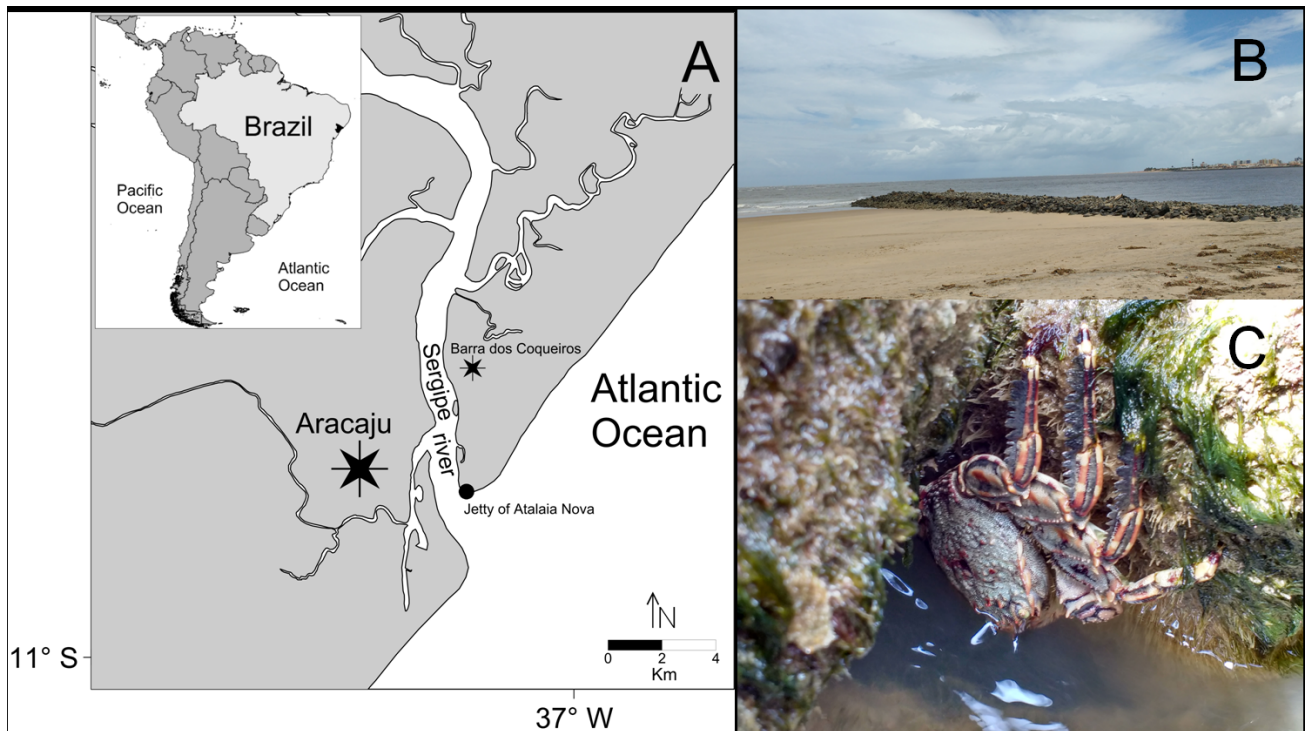
*Material examined.* Two males (CW 40.10 and 55.80 mm; CL 37.80 and 52.10 mm) and one ovigerous female (CW 43.30 mm; CL 41.50 mm) (NEP-CRUST 0028-0030), Atalaia Nova Beach, Barra dos Coqueiros, Sergipe, NE Brazil (Fig. 2), iv.2015, coll. R.B. dos Santos.

*Remarks.* According to Melo (1996) and Almeida and Carvalho (2014), *P. depressa* occurs from Ceará to Bahia. However, this species has never been recorded in Alagoas and Sergipe. Thus, *P. depressa* is herein

recorded for the first time from the state of Sergipe (10°S), filling a gap in the knowledge of the species distribution between the states of Pernambuco (8°S) and Bahia (12°S). This species is commonly harvested by artisanal fishermen along the coast of Pernambuco (Freitas and Santos, 2002; Coelho et al., 2004; Freitas and Santos, 2007). However, *P. depressa* seems not to form large populations in Sergipe, probably due to the absence of suitable habitat for this species. Indeed, the coast of Sergipe is mainly composed of sandy beaches without coral reefs or rocky habitats, except for the presence of a few artificial rocky structures such as the jetty where the species was collected (Fig. 2B). These jetties were built to stabilize both margins of the Sergipe River mouth ca. 30 years ago. However, during field trips carried out at both sides of the river mouth, the presence of *P. depressa* was confirmed only at the jetty of Atalaia Nova (north side). Factors controlling the species distribution and estimates of population size in the coast of Sergipe deserve further investigations.



**Figure 1.** *Plagusia depressa* (Fabricius, 1775), male CL=37.80 mm and CW 40.10 mm from Atalaia Nova Beach, municipality of Barra dos Coqueiros, state of Sergipe, northeastern Brazil (NEP-CRUST 0029). Scale bar: 2 cm.



**Figure 2.** Sampling area of *Plagusia depressa* (Fabricius, 1775) in Sergipe: A) Location of the jetty of Atalaia Nova Beach, municipality of Barra dos Coqueiros; B) Jetty of Atalaia Nova; C) *Plagusia depressa* in its natural habitat.

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