New records of decapod crustaceans (Dendrobranchiata and Brachyura) for the state of Bahia, Brazil.

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Abstract

Three species of decapod crustaceans, collected in Camamu bay (13°47' to 14°10' S) in June and September 2000, are first recorded from the coast of the state of Bahia, Brazil: the sicyonid shrimp *Sicyonia laevigata*, and the inachid brachyuran crabs *Metoporhaphis calcarata* and *Podochela brasiliensis*. The exotic portunid crab *Charybdis hellerii*, although already recorded to Todos os Santos bay, in the northern coast of Bahia, had not been previously recorded from the southern coast of this state.

Key words: *Sicyonia*, *Metoporhaphis*, *Podochela*, *Charybdis hellerii*, Camamu bay.

Introduction

According to Lana *et al.* (1996), the benthic fauna of the area comprised between Salvador (state of Bahia) and Vitória (state of Espírito Santo), in the continental platform as well as in the coastal environments, is the least known of the Brazilian benthic faunas. The estuarine environments and coastal beaches are particularly poorly known, mainly concerning invertebrate fauna.

Bahia has the longest coastline among the Brazilian states (about 1.188 km). Along its southern coast, which is delimited to the north by the greater municipality of Valença (13°12' S; 38°52' W), and to the south by Barra do Riacho Doce, in the municipality of Mucuri (18°20' S; 39°39' W), records of estuarine and marine decapod crustaceans are rare and sparse.

The estuary-lagoon complex of the Camamu bay is located on the southern coast of Bahia (between the parallels 13°47' and 14°10'S), 320 km far from Salvador, the state capital, being the third Brazilian bay in size (Oliveira *et al.*, 1998) (Fig. 1). Its position between the continent (on the west side) and an area of coral reefs and sandy banks (on the east side), keeps the complex protected from the high oceanic energies (Diegues, 2002). Rivers of short length such as Serinhaém, Igrapiúna, Pinaré, Acaraí, Conduru and Maraú have their estuaries on its continental coast. Several islands were formed in the interior of the bay, such as the islands of Tubarões, Maranguá, Campinho, Taipu Mirim, Grande and Pequena. Mangrove forests cover the areas located near the mouth of the rivers and around the islands. Sandy beaches and rocky substrate are also found in the interior of the bay. Despite the great diversity of ecosystems in the Camamu region, its faunistic and floristic constitution is still very poorly known.

The specimens described in this communication were collected through trawling net in two field expeditions to the Camamu bay held on 06.06.2000 and 19.09.2000, respectively. The trawlings were carried out with a net of 20 mm mesh, on muddy, sandy and organogenic bottoms. The specimens were fixed in 70% ethanol and deposited in the Crustacea collection of the Museu de Zoologia, Universidade Estadual de Santa Cruz, Ilhéus, Bahia (MZUESC), Brazil. The classification adopted in this communication follows that proposed by Martin and Davis (2001).

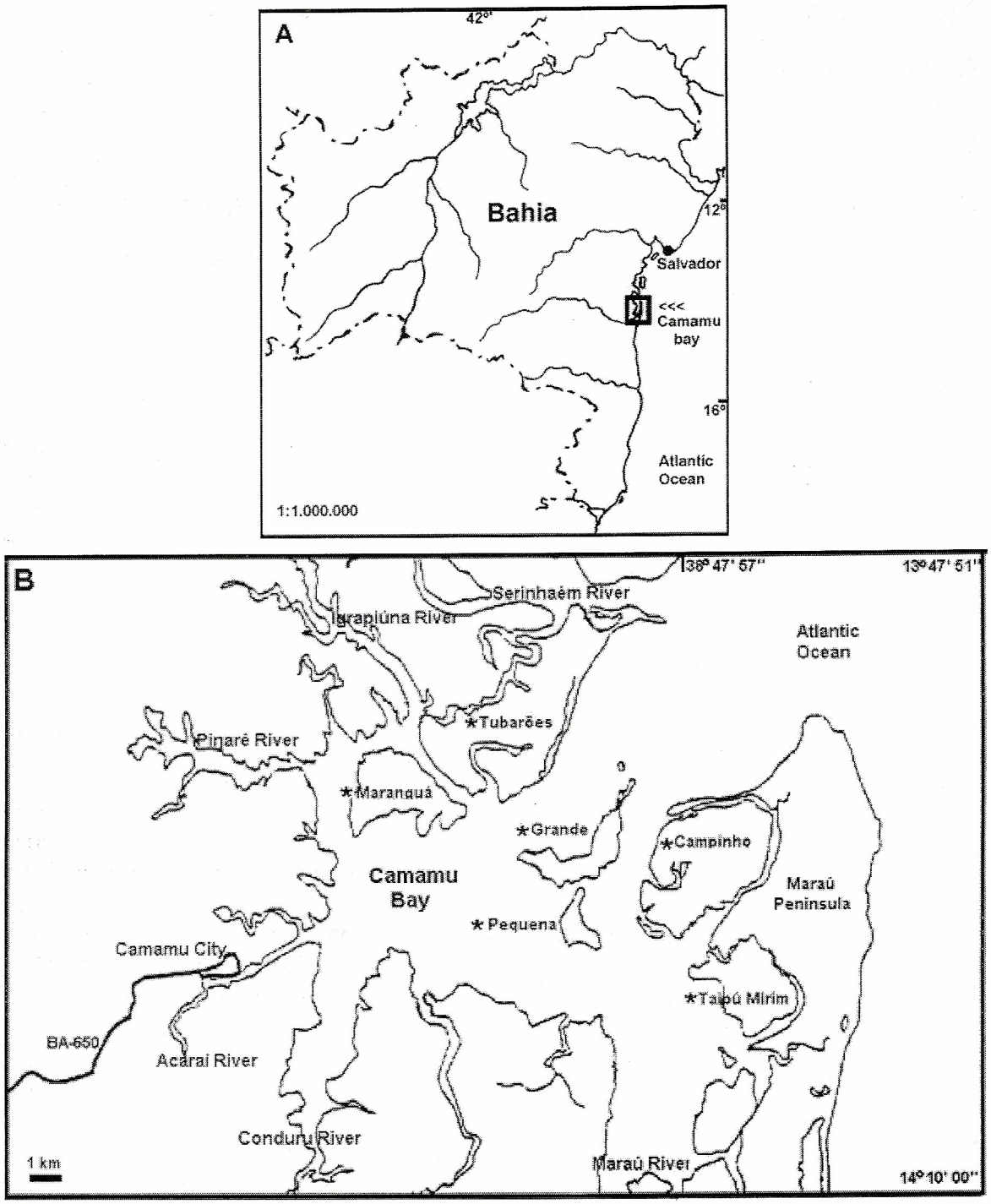

Figure 1: Localization of the estuary-lagoon complex from the Camamu bay, southern Bahia, Brazil. (A) state of Bahia. (B) Detail of the bay. The main islands are indicated by *.

Suborder Dendrobranchiata Bate, 1888

Superfamily Penaeoidea Rafinesque, 1815

Family Sicyoniidae Ortmann, 1898

Sicyonia laevigata Stimpson, 1871

Material examined: 1 female, 19.09.2000, Station 3 (13°57'05" S; 38°59'68" W) (MZUESC-49).

Geographic distribution: Pacific: Mexico, Costa Rica and Panama. Western Atlantic: United States (North Carolina to Florida), Gulf of Mexico, Central America, Antilles, Colombia, Venezuela and Brazil (from Amapá to Rio Grande do Sul).

Habitat: Oceanic, demersal species, occurring up to 100m deep, but more frequently at depths of 50m. On rocky, sandy, shells and algae (*Thalassia* and *Halodule*) bottoms, rarely on muddy bottoms.

Remarks: According to D'Incao (1995), six species of the genus *Sicyonia* were recorded from the coast of Brazil, four of which in Bahia: *S. burkenroadi*, *S. dorsalis*, *S. parri* and *S. typica*. *Sicyonia laevigata* has a wide distribution on the Brazilian coast, however its occurrence had not been previously recorded from Sergipe, Bahia, São Paulo and Paraná (D'Incao, 1995). More recently, Costa *et al.* (2000) provided the first report of this shrimp on the northern coast of São Paulo, in Ubatuba bay. The occurrence of *S. laevigata* in Bahia fills one of the distributional gaps for this species.

Suborder Pleocyemata Burkenroad, 1963
Infraorder Brachyura Latreille, 1802
Family Inachidae MacLeay, 1838
Metoporhaphis calcarata (Say, 1818)

Material examined: 1 female, ovigerous, 19.09.2000, Station 06 (13°52'99" S; 38°59'59" W) (MZUESC-54).

Geographic distribution: Western Atlantic: east coast of the United States (North Carolina to Florida), Gulf of Mexico and Brazil (Rio Grande do Norte, Alagoas, Espírito Santo and Rio de Janeiro).

Habitat: On rocky and coral bottoms, hydroids and oysters, from shallow waters up to 90m deep.

Remarks: Huge gaps are found in the distribution of *M. calcarata*. In Brazil, according to Melo (1996), the species occurs in Espírito Santo and Rio de Janeiro. However, Gomes-Correa (1972) reported the occurrence of the species on the Abrolhos archipelago, Bahia, now Marine National Park of Abrolhos, located about 70 km away from the coast, in the southernmost region of the state, near the town of Caravelas. Coelho *et al.* (1990) reported the species also from Alagoas. Recently, Ferreira and Sankarankutty (2002) recorded *M. calcarata* on sandy bottom with broken shells and coral, in the estuary formed by the rivers Casqueira and Conceição, in Macau, Rio Grande do Norte.

Podochela brasiliensis Coelho, 1972

Material examined: 1 male, 1 female, ovigerous, 06.06.2000, Station 05 (13°52'37" S; 38°57'11" W) (MZUESC-48).

Geographic distribution: Brazil (from Ceará to Sergipe).

Habitat: On calcareous algae bottoms, occasionally in sand or coral reefs, from 20 to 50m deep.

Remarks: Seven species of the genus *Podochela* were previously recorded from the Brazilian coast, two of which in Bahia: *P. algicola* and *P. gracilipes* (see Melo, 1996; Sankarankutty *et al.*, 2001). *Podochela brasiliensis* was described by Coelho (1972) from specimens collected in the states of Ceará, Pernambuco and Sergipe. The present record extended the austral distribution limit known to this species, formerly represented by Sergipe (Melo, 1996), to the Camamu bay (13° S).

Family Portunidae Rafinesque, 1815
Charybdis hellerii (A. Milne Edwards, 1867)

Material examined: 1 male, 19.09.2000, Station 03 (13°57'05" S; 38°59'68" W) (MZUESC-09). The specimen measured 42.7 mm in carapace length and 64.5 mm in carapace width.

Geographic distribution: Red Sea, Djibouti, Somalia, South Africa, Madagascar, Persian

Gulf, Hong Kong, Singapore, Ceylon, India, China, Japan, Indonesia, Philippines, New Caledonia, Australia and Hawaii. Eastern Mediterranean: Egypt and Israel. Western Atlantic: Florida, Cuba, Colombia, Venezuela, French Guyana and Brazil (Calado, 1996; Dineen *et al.*, 2001; Tavares and Amouroux, 2003).

Habitat: On soft, rocky and coral bottoms, up to 51m deep. Also inhabits mangroves.

Remarks: This is a species of Indo-West Pacific origin and was introduced into the Mediterranean Sea through the Suez Canal and into the western Atlantic, around 1987 and 1988, through the ballast water from ships, probably loaded at a Mediterranean port (Tavares and Mendonça Jr., 1996; Tavares and Amouroux, 2003). Introduction of *C. hellerii* into the western Atlantic probably involves introduction into one or more regions followed by dispersal via larval stages or adults (Tavares and Mendonça Jr., 1996). On the Brazilian coast, the species was recorded from bays and estuaries in the states of Alagoas (Calado, 1996), Rio de Janeiro (Tavares and Mendonça Jr., 1996), São Paulo, Santa Catarina (Mantelatto and Dias, 1999), Rio Grande do Norte (Ferreira *et al.*, 2001) and Pernambuco (Coelho and Santos, 2003), and no serious impacts to other species or to the local benthic communities have been detected until now (Mantelatto and Garcia, 2001; Tavares and Amouroux, 2003). Carqueija and Gouvêia (1996) documented for the first time the occurrence of this portunid in Todos os Santos bay, near Salvador, northern coast of Bahia. Preliminary studies detected an increase in population size of *C. hellerii* in this region, probably as a result of competition for food and habitat with indigenous portunids, nonexistence of natural predators and non exploitation of this crab by the artisanal fishery (C. R. G. Carqueija, unpublished data). The occurrence of this crab in Camamu bay is a reason of concern since a wide range of habitats suitable for the establishment of this species are found in the region, including vast mangrove areas. As there are no large harbors in the interior or close to the bay, it is likely that *C. hellerii* has arrived to the region through larval stages dispersion from Todos os Santos bay.

Acknowledgements

We sincerely thank Dr. Janisete Gomes da Silva from Departamento de Ciências Biológicas, Universidade Estadual de Santa Cruz (DCB/UESC) and Ms. Carter Miller for revising the manuscript. A. O. Almeida thanks Tarcísio Alves Cordeiro, Maria Cecília Guerrazzi and Fernando Mauro Pereira Soares from DCB/UESC for the opportunity to participate in the expeditions to the Camamu bay, and Ricardo O'Reilly Vasques for his collaboration in the field and in the laboratory. J. T. A. Santos is grateful to FAPESB (Fundação de Amparo à Pesquisa do Estado da Bahia), for the award of a fellowship between April 2003 and April 2004. Special thanks are due to UESC for financing the expeditions.

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Received: 15th Jan 2004
Accepted: 15th Jun 2004