

First report of *Axianassa australis* Rodrigues & Shimizu (Crustacea: Decapoda: Thalassinidea) along the coast of the state of Paraná, Brazil.¹

Primeiro registro de *Axianassa australis* Rodrigues & Shimizu (Crustacea: Decapoda: Thalassinidea) na costa do Estado do Paraná, Brasil.¹

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The genus *Axianassa* Schmitt, 1924 from the family Laomediidae is represented by six species along the Western Atlantic: *Axianassa intermedia* Schmitt occur in Curaçao, Lesser Antilles and Aruba; *A. mineri* Boone, 1931 in Panama and Mexico Gulf; *A. arenaria* Kensley & Heard, 1990 in the Mexico Gulf; *A. canalis* Kensley & Heard, 1990 in the Panama channel; *A. jamaicense* Kensley & Heard, 1990 in Jamaica and *A. australis* Rodrigues & Shimizu, 1992 in Brazil. Along the Brazilian coast, this genus has been formerly found in the states of Pernambuco, Bahia (Valença) and São Paulo (São Sebastião). According to STRASSER & FELDER (2005), this species is also recorded in southern Texas, USA. Based on the present work, the geographic distribution of *A. australis* is extended up to the state of Paraná, southern coast of Brazil.

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STUDIED AREA

The locality named Baixio Mirim is a sandy mud bank situated at an intertidal zone in the Guaratuba Bay, Paraná (48°36'44"W and 25°52'37"S) (Figs 1 and 3). It is located close to mangroves, surrounding such bay and it is isolated from the continent by a narrow channel. Its higher part presents a sandy substratum, partially covered with *Spartina* sp.(Poaceae), and the lower part comprises a muddy bank free of any macroscopic vegetation. A high density of fiddler crabs, *Uca leptodactyla* Rathbun, 1898 and *Uca maracoani* (Latreille, 1802-1803), both from Ocypodidae, is reported, respectively, over sandy and muddy bottoms along the area (MASUNARI, 2006 in press). *Axianassa australis* inhabits the muddy substratum at the lower part of the bank, which is exposed during low tides of sizigia. Another crustacean also found over the same muddy substratum is the species *Upogebia paraffinis* Williams, 1993 from family Upogebiidae. This latter one has been geographically restricted to Pontal do Sul, in the Paraná State and Ceará, Pernambuco, Rio Grande do Norte, Paraíba, Alagoas e São Paulo, according to MELO, LOYOLA E SILVA & BROSSI-GARCIA (2004). Nowadays, its occurrence range was extended up to Guaratuba, in Paraná's southern shore.

COLLECTION PROCEDURES

Opertures could be seen on the beach's surface, indicating the presence of galleries inhabited by *A. australis*. Diggings around these openings were performed in order to carry out the collection, by removing the sandy mud bottom up to 20cm of depth. The species were identified based on the key, MELO (1999) and on description of RODRIGUES & SHIMIZU (1992). Only four specimens of *A. australis* were captured, randomly, being one female adult, with 3.04cm in total length and three juveniles, with length ranging from 0.84 to 1.45mm (Fig.2). The specimens were fixed in alcohol 70% and have been kept in the Collection from the Zoology Department at UFPR.

TAXONOMICAL FEATURES

Carapace with well-defined linea thalassinica and cervical groove. Short rostrum, albeit passing over eye's cornea. Ventral flagellum

of antennule a little bit longer than 1/3 of the dorsal flagellum's length. Segment 2 from antenna peduncle with thin aciculae, bearing a sharp teeth on the inner margin. Base of the third maxilliped with one to two small teeth at the lateral surface. Ischium with a fringe bearing 14 teeth. Asymmetric and sexually dimorphic chelipeds. Abdomen with thin walls. Pleura from the first abdominal somite, ventrally elongate, ending as a spine-like process, not reaching the middle line. Pleura from somites 3, 4 and 5 bearing a thick fringe of plumose setae. Pleura from somite 6 bearing few hair-like structures and a sinuous ventral margin. Telson a little bit longer than its largest width and presenting a quite rounded posterior margin, bearing long and plumose setae.

SEX DIMORPHISM

MALE — Pereiopod 1 with the ventral margin of the ischium bearing 3 to 6 teeth; ventral margin of the merus with discrete denticles; carpus of the largest cheliped with vestigial ventrodistal tubercles, dactylus of the larger chelae shorter than its palm, fixed and mobile fingers with inconspicuous and rounded teeth; dactylus of the smaller chelae longer than the palm; fixed finger with 3 strong and sharp teeth besides some minor and rounded ones over the cutting edge. Pleopod 1 absent.

FEMALE — Pereiopod 1 with the ventral margin of the ischium bearing 3 sharp teeth; ventral margin of the merus and carpus, smooth; dactylus of the larger chelae as long as its palm; fixed finger bearing several small teeth and 2 large and sharp teeth. Pleopod 1 present, thin and 2-segmented.

GEOGRAPHIC DISTRIBUTION

Based on the present work, the distribution range of the species *A. australis* Rodrigues & Shimizu, 1992 is extended up to Southern Brazil, in the city of Guaratuba, state of Paraná. (48°36'44"W and 25°52'37"S). Up to now, the occurrence of this species was restricted to the states of Pernambuco, Bahia and São Paulo in Brazil. Recently, *A. australis* was register to Southern Texas, in the United States by STRASSER & FELDER (2005).



Figs 1-3. 1, view of Baixio Mirim at the shore of Paraná state [The arrow indicates the collection site]; 2, *Axianassa australis* — juvenile (1.24mm); 3, detail of the collection site.

RESUMO

Axianassa australis Rodrigues & Shimizu, 1992 (Crustacea: Decapoda: Thalassinidea), anteriormente citada para os Estados de Pernambuco, Bahia e São Paulo, tem sua distribuição ampliada para o Estado do Paraná, Município de Guaratuba, litoral Sul do Brasil (48°36'44"W e 25°52'37"S).

PALAVRAS CHAVE: Thalassinidea; *Axianassa australis*; Paraná-Brazil.

SUMMARY

Axianassa australis Rodrigues & Shimizu, 1992 (Decapoda: Thalassinidea) anteriorly cited to States of Pernambuco, Bahia and São Paulo, Brazil. Based on the present report, its distribution range has been actually expanded up to state of Paraná, in Guaratuba city, Southern of Brazil, (48°36'44"W and 25°52'37"S).

KEY WORDS: Thalassinidea; *Axianassa australis*; Paraná-Brazil.

RÉSUMÉ

Axianassa australis Rodrigues & Shimizu, 1992 (Decapoda: Thalassinidea), récoltée dans la Baie de Guaratuba, Paraná (48°36'44"W e 25°52'37"S). Cette espèce était connue au Brésil en Pernambuco, Bahia et São Paulo. Avec ce registre, son aire de distribution devient amplifiée vers le sud du Brésil, côte du Paraná, Brésil.

MOTS CLÉS: Thalassinidea; *Axianassa australis*; Parana-Brésil.

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