

On Brazilian Cones (Gastropoda; Conidae)

António Monteiro ¹, Olivier Crabos ² & Dâmaso Monteiro ³

¹ Rua Carlos Calisto 3, 4E, 1400-043 Lisbon, Portugal - a.j.a.monteiro@gmail.com

² Corresponding Author: Avenida Piemonte 251, 1E, 2765-438 Estoril, Portugal

Email at: oli170711@gmail.com

³ Rua Cidade de Luanda, 209 - 3° E, 4100-167 Porto, Portugal - damaso.monteiro@gmail.com

ABSTRACT Two new species of Conidae from the Brazilian Molluscan Province are described herein as part of a study of large numbers of specimens of all Brazilian Conidae species. The new species *Jaspidiconus alagoensis* is compared with *J. anacarolinae* Cossignani, 2019, *J. ogum* Petuch & Myers, 2014, *J. marinae* Petuch & Myers, 2014, and *J. barragrandsensis* Crabos, Oliveira, Queiroz & Almeida, 2022. The new species *Poremskiconus neobrasiliensis* is compared with *Conus brasiliensis* Clench, 1942 herein deemed a *taxon inquirendum*, as well as *P. archetypus*, and *P. cargilei*.

KEY WORDS Brazilian Molluscan Province, Conidae, Conitlithiae, *Jaspidiconus*, *J. alagoensis*, *Poremskiconus*, *P. neobrasiliensis*

INTRODUCTION

The authors have been working on a full revision of Brazilian Cone shells, for which they have been examining a large number of samples of local specimens, collected along the long coast of the country, in the southwestern Atlantic Ocean.

As should probably be expected, some of the examined materials actually defied identification and in several instances, even though the samples certainly did not match any of the already described species, the number of known specimens is so small that further findings will be necessary before any final conclusions can be reached. In some cases, if and when more specimens are found, new species will most probably be described.

In some cases, we feel we have enough information about certain populations to justify the introduction of new species, and in the present paper we deal with such a case and also with another nomenclatural issue.

SYSTEMATICS

Class	Gastropoda
Subclass	Caenogastropoda
Order	Neogastropoda
Superfamily	Conoidea
Family	Conidae
Subfamily	Conitlithinae
Genus	<i>Jaspidiconus</i>

Jaspidiconus alagoensis Monteiro,
Crabos & Monteiro, n. sp.
(Figures 1-4)

Description. Protoconch concolor with the yellowing beige shell, which is punctuated with discrete white markings (sometimes the protoconch is rusty due to darker mud); 16 darker points on the shoulder. Ratio spire/shell 0.3, internal part of the mouth creamy white, around 20 radial ridges around last turn.

Type Material. The holotype (20.0 x 10.3 mm) is deposited in the Museu Nacional do Rio de Janeiro MNRJ, Brazil, under the registration number MNRJ 37346. It was given by Prof.

Sérgio Vanin to the second author, under the name *Jaspidiconus cf ogum*. Paratypes. No. 1 – 19.5 x 9.5 mm – In the collection of Olivier Crabos; No. 2 – 21.5 x 11.0 mm – In the collection of Olivier Crabos; No. 3 – 22.5 x 11.5 mm – In the collection of Olivier Crabos. Just like the holotype, the 3 paratypes were collected in November 2018 and given by Prof. Sérgio Vanin to the second author, under the name *Jaspidiconus cf ogum*.



Figure 1. Holotype of *Jaspidiconus alagoensis* n. sp. (photo Gonçalo Rosa)



Figure 2. *J. alagoensis* n. sp., paratype 1 (photo Gonçalo Rosa)



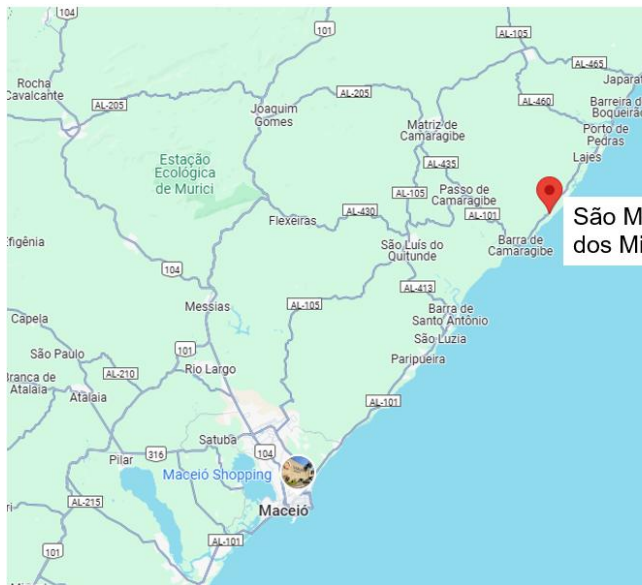
Figure 3. *J. alagoensis* n. sp., paratype 2 (photo Gonçalo Rosa)



Figure 4. *J. alagoensis* n. sp., paratype 3 (photo Gonçalo Rosa)

Type Locality. Praia Porto da Rua, São Miguel dos Milagres, Alagoas State, Brazil.

Etymology. The new species is named after the State of Alagoas, on whose coast the species is found. We should note that the name “Alagoas” derives from “lago”, which means “lake” in Portuguese.



Map 1. Geographic distribution. Known only from the type locality, Praia Porto da Rua, São Miguel dos Milagres, Alagoas State, Brazil.

Habitat. In muddy sands at extreme low tide (information given by Rodrigo Hazin, from Natal, Rio Grande do Norte, Brazil).

Discussion. The new species, along with others, was part of the so called *Jaspidiconus jaspideus* complex for most of the 20th century, before Edward J. Petuch started explaining that such Caribbean shells, with lecithophic development, could not have crossed the Amazon River barrier, so the different populations of *Jaspidiconus* from Brazil were all endemic to Brazil.

This important distinction aligns with *J. anacarolinae* Cossignani, 2019, also inhabiting shallow waters along the coast of Alagoas State, although further north, in Maragogi, some 30 kms northward of São Miguel dos Milagres, both locations being separated by the mouth of the river Manguaba. On the other hand, *J. anacarolinae* has a more contrasted pattern, with a white shell covered with brown marks, purple protoconch and lilac mouth.

Jaspidiconus ogum Petuch & Myers, 2014, from Itaparica, Bahia State, comes from 600 kms to the south, both populations being separated by the mouth of the mighty river São Francisco, the most important river from Northeast Brazil, a real barrier for speciation. Its shells are generally vivid orange, quite pustulose and fatter than those of *J. alagoensis*, and also slightly smaller (average size 17 mm compared with 20 mm for *J. alagoensis*). *J. marinae* Petuch & Myers, 2014, comes from the same region as *J. ogum*, is slenderer and has a clearly stepped spire; its shells vary considerably in colour. *Jaspidiconus barragrandsensis* Crabos, Oliveira, Queiroz & Almeida, 2022, from 100 kms further south, is clearly larger, slenderer, and has a more contrasted varied darker beige pattern.

Genus *Poremskiconus*

Poremskiconus neobrasiliensis Monteiro,
Crabos & Monteiro, n. sp.
(Figures 5-7)

Description. The shell is small, with a slightly convex profile and an angular shoulder. The body whorl presents a mottled brown or reddish brown pattern on a white background, usually forming two bands, one at about mid-body, the other near the anterior end, the remaining areas covered with patches of brownish red. The spire is depressed, obtuse, with fine spiral threads, and with a white and brown colouration similar to that of the body whorl, which gives it a look of white areas, separated by brown lines. Aperture oblique, with a thin outer lip; body whorl apparently smooth (save for 6 to 8 spiral threads at the anterior end), but covered with fine axial growth lines. The aperture is reddish brown.

Type Material. The holotype (20.0 x 11.1 mm) is deposited in Museu Nacional do Rio de

Janeiro, Brazil, under the registration number 37350. Paratypes: No. 1 – 22 x 12 mm – In the collection of Olivier Crabos; No. 2 – 22 x 12 mm – In the collection of Olivier Crabos; No. 3 – 23 x 12.5 mm – In the collection of Olivier Crabos.



Figure 5. Holotype *Poremskiconus neobrasiliensis* n. sp. (photo Gonçalo Rosa)



Figure 6. *P. neobrasiliensis* n. sp., paratype 1 (photo Gonçalo Rosa)

Type Locality. Guarapari, Espírito Santo State, Brazil. 1 to 3 m deep on sand, stones, coral and calcareous algae.

Geographic distribution. Along the coasts of the states of Bahia and Esp rito Santo, Brazil.



Figure 7. *P. neobrasiliensis* n. sp., paratype 2 (photo Gonçalo Rosa)

Etymology. The name of the new taxon refers to the fact that it applies to specimens hitherto identified as *Conus brasiliensis*.

Habitat. The species occurs in depths of 2-2.5 m, on muddy bottom among corals and rocks.

Discussion. In 1942, William Clench described *Conus brasiliensis*, based on material from the Thayer Expedition, Hartt and Copeland collectors (from Agassiz's party of naturalists), 1865-1866. The holotype was a dead collected and badly eroded specimen, whose identity is quite difficult to establish.

It is quite probable that *C. brasiliensis* Clench, 1942 represents a variation of *Poremskiconus archetypus* (Crosse, 1865), also described from dead collected material. At the same time, the holotype of *C. brasiliensis* does not really correspond to the specimens commonly identified as *P. brasiliensis*. This means that, in our opinion, *C. brasiliensis* must be considered as a *nomen inquirendum* and, on the other hand, the specimens usually identified as *P. brasiliensis* remain nameless. For these reasons, we hereby give them the new name *P. neobrasiliensis*.

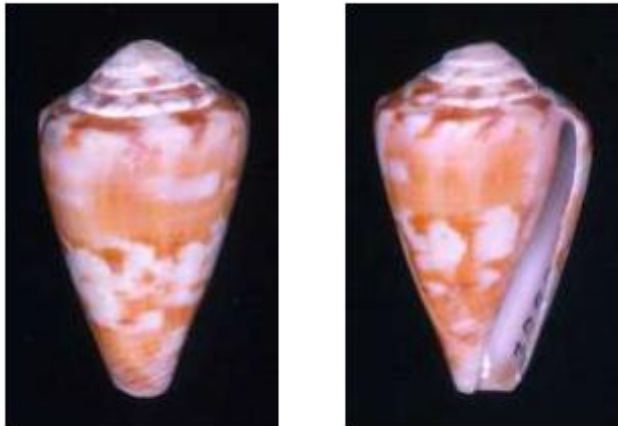


Figure 8. *Conus brasiliensis* (holotype).

The shell somewhat resembles that of *P. archetypus*, which is larger (reaching more than 40 mm, whereas the maximum size for *P. neobrasiliensis* is of about 24 mm), with a more triangular shell, with less contrasted pattern, and comes from Salvador, Bahia, some 900 km north of Guarapari. *P. neobrasiliensis* may also be compared with *P. cargilei*, which, however, has a much more elongated, angled-shouldered shell, and also comes from a totally distinct area, namely the Abrolhos area, 400 km north of Guarapari.

ACKNOWLEDGEMENTS

The authors thank Sérgio Vanin for supplying the specimens used in this study, Rodrigo Hazin for confirming the habitat of *J. alagoensis* sp. nov., Alfredo Bodart for supplying the specimens used in the description of *P. neobrasiliensis* sp. nov. and confirming its habitat. We also thank Jennifer Trimble, Collection Manager / Curatorial Associate, Malacology, MCZ Cambridge, Massachusetts, U.S.A. for the photos and information about holotypes housed in the museum, and we thank Gonçalo Rosa (Atoll Specimen Shells, Portugal) for making the photos that illustrate this paper.

REFERENCES & LITERATURE CITED

- Clench, W.J. 1942. The genus *Conus* in the Western Atlantic. *Johnsonia*. 1(6):1-40
- Coltro, Jr., J. 2004. New species of Conidae from northeastern Brazil (Mollusca: Gastropoda). *Strombus* 11:1-15.
- Coltro, Jr., J. 2011. Brazilian Conidae Geographic Distribution and Environmental Situation. *Femorale* 93 pp
- Cossignani, T. 2019. Un nuovo cono dal Brasile. *Malacologia Mostra Mondiale* 105:14-15.
- Costa, F.H.A. 1994. On the *Conus jaspideus* complex of the western Atlantic (Gastropoda: Conidae). *Veliger* 37(2):204-213.
- Crabos, O., G.S.P. Oliveira, G.P. de Queiroz, & L.P. de Almeida. 2022. Four new cone shells from northern and central Brazil. *The Festivus* 54(4):287-293.
- Crosse, H. 1865. Description de cônes nouveaux provenant de la collection Cuming. *Journal de Conchyliologie* 13:299-315.
- Filmer, R.M. 2001. A Catalogue of Nomenclature and Taxonomy in the Living Conidae 1758-1998. Backhuys Publishers
- Filmer, R.M. 2011-2013. Nomenclature and Taxonomy in Living Conidae (www.theconecollector.com)
- Monnier, E., L. Limpalaër, A. Robin, & C. Roux. 2018. A Taxonomic Iconography of Living Conidae, Association Française de Conchyliologie & ConchBooks
- Petuch, E. J. 2013. Biogeography and biodiversity of western Atlantic mollusks. CRC Press
- Petuch, E.J. & R.F. Myers 2014a. New species of Conidae and Conilithidae (Gastropoda: Conoidea) from the Bahamas, eastern Caribbean, and Brazil. *Xenophora Taxonomy* 3:26-46.
- Petuch, E.J. & R.F. Myers. 2014b. Additions to the cone shell faunas (Conidae and Conilithidae) of the Cearaian and Bahian subprovinces, Brazilian Molluscan Province. *Xenophora Taxonomy* 4:30-43.
- Rios, E. 2009. Compendium of Brazilian Sea Shells. Universidade Federal do Rio Grande, Museu Oceanográfico Prof. Eliézer de Carvalho Rios.
- Tucker, J.K. 2010. Danker L.N. Vink's The Conidae of the Western Atlantic. *The Cone Collector* 14a:2-165 (www.theconecollector.com)

Cite as:

Monteiro, A., O. Crabos & D. Monteiro. 2025. On Brazilian Cones (Gastropoda; Conidae). *The Festivus* 57(4):268-272. <http://doi:10.54173/F574268>