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A New *Persicula* (Gastropoda:Cysticidae) from Central Brazil

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ABSTRACT A new small translucid *Persicula* dredged off Southern Bahia State at depths of 20 up to 30 meters is described and compared to other species.

KEY WORDS *Persicula moretzsohni* sp. nov., Alcobaça, Bahia, Brazil, Cysticidae

INTRODUCTION

For many years the author has received some small translucid *Persicula* from Southern Bahia State. Most of the specimens were hand dredged on the largest Brazilian reef complex around Abrolhos Archipelago. Apparently, this species inhabits sediment and coralline sand at depths between 20 and 30 meters.

Abbreviations:
MNHN – Muséum national d´Histoire naturelle, Paris, France
MNRJ – Museu Nacional, Rio de Janeiro, Brasil
MZSP – Museu de Zoologia da Universidade de São Paulo, São Paulo, Brasil

SYSTEMATICS

Family Cysticidae Stimpson, 1865
Subfamily Cysticinae Stimpson, 1865
Genus *Persicula* Schumacher, 1817

Persicula moretzsohni Coltro, new species
(Figure 1A-C)

Description. Shell minute, about 4-5 mm, elongated, cylindric, semi translucent, spire immersed, with three well developed plicae on the columella; color translucid white with irregular pale brown longitudinal wavy fine bands; surface smooth and glossy; aperture narrow, lip moderately thickened and with a very tiny crenulation.

Types. Holotype MZSP 152140 (4.7 mm long, 2.7mm width) (Figure 1A); Paratype 1 MNHN-IM-2012-25492 (4.3 mm long, 2.3 mm width) (Figure 1B); Paratype 2 MNRJ 23.602 (4.2 mm long, 2.2 mm width) (Figure 1C); 9 specimens from type locality, all at MZSP.

Type locality. Off Alcobaça, Bahia State, Brazil (17º30'14"S 38º48'51"W, 28 meters deep).

Habitat. Coral sand and rubble between 10 up to 30 meters deep.

Etymology. Named in honor of the late Brazilian malacologist Fabio Moretzsohn (1964-2020).

DISCUSSION

As the vast majority of small marine species off the coast of Brazil are poorly studied, the presence of a new *Persicula* is not an exceptional finding. There are probably a few more dozen species of undescribed Cysticidae along the Brazilian coast.

For the Brazilian coast, E.C.Rios (2009) showed only four Cysticidae species: *Gibberula catenata* (Montagu, 1803), a Caribbean species

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Figure 1. *Persicula moretzsohni* Coltro, new species **A=** Holotype (4.7 mm long, 2.7 mm width); **B=** Paratype 1 (4.3 mm long, 2.3 mm width); **C=** Paratype 2 (4.2 mm long, 2.2 mm width), all from Alcobaça, Bahia State, Brazil.

(Figure 2I); *Gibberula lavalleeana* (d'Orbigny, 1842); *Persicula sagittata* (Hinds, 1844) and *Granulina ovuliformis* (d'Orbigny, 1842) (now Granulinidae). Cossignani (2006) showed only three Cysticidae species: *Gibberula moscatelli* Boyer, 2004; *Persicula sagittata* and *Persicula* aff. *sagittata*. The www.femorale.com website shows images of 12 Cysticidae species from Brazil, probably most of them new to science (Figure 2C and H) except for the *P. sagittata* and *G. moscatelli*. The website www.gastopods.com show images of 5 species from Brazil: *P. sagittata, P. pulcherrima* (Gaskoin, 1849), *G. catenata, G. moscatelli* and *Granulina clandestina* (Bavay, 1908) – a European species which is now placed in the family Granulinidae.

P. moretzsohni is much closer to the Caribbean species *Gibberula fluctuata* (C.B.Adams, 1850) (Figure 2G) and *Persicula frumentum* (Sowerby I, 1832) (Figure 2F) based on size, shape and ornamentation. Both Caribbean species are more compact and slightly conic at the back. The ornamentation on *P. moretzsohni* is closer to *G. fluctuata* and the immerse spire is closer to *P. frumentum*.

Among the Caribbean Cysticidae, *P. moretzsohni* has the most pale ornamentation and it is one of the smallest species in this genus.

According to WoRMS – World Register of Marine Species (www.marinespecies.org) the separation between *Persicula* and *Gibberula* is not clear. This small species had been placed under the genus *Persicula* following Coovert G.A. & Coovert H.K. (1995). The use of the genus *Persicula* or *Gibberula* is controversial since even Coovert & Coovert (1995) do not show deep conchological differences except for the notch at the anterior end and the spire not completely immerse in *Gibberula*. However, both *Gibberula catenata* and *G. moscatelli* have the spire immersed. Further studies of this entire complex using anatomy and molecular analysis may further assist in determining which genus is most appropriate.

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WoRMS – World Register of Marine Species – www.marinespecies.org

Figure 2. Comparative Cysticidae species. **A-B=** *Persicula sagittata* (Hinds, 1844) (6.2 and 6.9mm) from Fernando de Noronha Island, Brazil; **C=** *Gibberula* sp. (5 mm) from Canopus Bank, off Ceará State, Brazil; **D-E=** *Gibberula moscatelli* Boyer, 2004 (12.2 and 12 mm), from Luís Correia, Piaui State, Brazil; **F=** *Persicula frumentum* (Sowerby I, 1832) (6 mm) from Carriacou Island, Grenadines, Grenada; **G=** *Gibberula fluctuata* (C.B. Adams, 1850) (5.6 mm) from Plum Cay, Andros Island, Bahamas; **H=** *Persicula* sp. (4.2 mm) from Guarapari, Espirito Santo State, Brazil; **I=** *Gibberula catenata* (Montagu, 1803) (4.9 mm) from Big Pine Key, Florida, USA. All photos are from Femorale.