

**A NEW SPECIES OF *OLIVELLA* (NEOGASTROPODA, OLIVELLIDAE)
FROM BRAZIL**

Ricardo Silva Absalão

Departamento de Biologia Animal e Vegetal,
Instituto de Biologia,
Universidade do Estado do Rio de Janeiro.
Av. São Francisco Xavier 524,
Maracanã, Rio de Janeiro,
RJ, CEP 20550-900,
Brasil

Departamento de Zoologia,
Instituto de Biologia, C.C.S.
Universidade Federal do Rio de Janeiro,
Ilha do Fundão, Rio de Janeiro, RJ
CEP. 21941-570, Brasil
e-mail: absalao@hotmail.com

KEY WORDS: *Olivella*, Olivellidae, Neogastropoda, New species, Gastropoda, Biodiversity, Southern Brazil.

ABSTRACT

A new species, *Olivella (Olivella) arionata* is described from shallow waters off southern Brazil. It is recognizable by characters of colour, subsutural band, fasciole, and the lack of an operculum. The pillar structure of young forms shows similarities to subgenus *Olivina*.

Received: 27 - III - 00; accepted: 08 - VIII - 00

INTRODUCTION

Although the Neogastropoda are among the best studied mollusks, the last large scale revision of the genus *Olivella* was done by Olsson (1956), who proposed some of the currently accepted subgenera. Olsson (1956) pointed out that there are more species of *Olivella* in the American tropics than in any other part of the world. For example, Olsson (1956) and Abbott (1974) recognized 27 and 25 valid species, respectively, for the U.S.A. east coast, and Keen (1971) assigned 25 valid species to the U.S.A. west coast. Dias & Puyana (1994) reported 9 species of *Olivella* from the Atlantic coast of Colombia, while Rios (1994) recorded 16 from the coast of Brazil.

The apparent lower species diversity of *Olivella* in the southern hemisphere probably reflects the low number of researchers in this region (Bouchet, 1997). Indications that we are not leveling off in the inventory of *Olivella* diversity can be found in the reports of Diaz & Götting (1990) and Klappenbach (1991).

During routine dredging off the coast of Rio de Janeiro as part of a student trainee program of the Universidade Federal do Rio de Janeiro, we obtained specimens of an *Olivella* new to science.

Abbreviations: MORG, Museo Oceanográfico Elézer de Carvalho Rios da Fundação Universidade de Rio Grande, Brazil; IBUFRJ, Instituto de Biologia da

Universidade Federal do Rio de Janeiro, Brazil; MNRJ, Museo Nacional do Rio de Janeiro; USNM, National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.; ANSP, Academy of Natural Sciences, Philadelphia, U.S.A.; MNHN, Muséum National d'Histoire Naturelle, Paris, France.

Taxonomic Description

Subclass Orthogastropoda

Order Sorbeoconcha

Infraorder Neogastropoda

Olivellidae Troschel, 1869

Olivella Swainson, 1831

Subgenus *Olivella*

Olivella arionata n. sp. (Figures 1;3-6)

Description

Shell small (reaching 7.5 mm in length), oblong (length/width = 2.7, ranging from 2.4 to 2.9, and coloured deep violet except in whitish to white fasciolar region. Shell with white subsutural band, this band in fresh specimens showing many tiny orange longitudinally-oriented comma-shaped markings.

Spire moderately elevated, about 20% (range 19.3% to 23.5%) of total length of shell. First one or two whorls slightly stepped. Protoconch globose,

dark-coloured, not projecting beyond the spire. Suture canaliculate. Fasciole simple, usually white or whitish. Parietal callus slightly to moderately developed, translucent. Parietal callus continuing beyond posterior end of aperture, forming acute triangle, reaching upper part of body whorl but not touching suture.

Pillar structure with two or three folds, projecting slightly into aperture, two to four pillar lirations extending over parietal wall to middle of aperture; remainder of parietal wall smooth. Inner side of outer lip smooth.

Operculum absent.

Shallow water species (18 m).

Types and type locality: All types from 21° 40' 117 S, 40° 48' 004 W off State of Rio de Janeiro, southern Brazil, at 18 m depth, collected by Research Vessel "Astro Garoupa" on 25 July 1999. Holotype: MORG 41031; paratype 1: IBUFRJ 10875; paratype 2: MNHN; paratype 3: MNRJ 8289; paratype 4: USNM 880647; paratype 5: ANSP xxxxxx.

Etymology: From *ion* (Greek) = violet, *ary-* (Greek) = very, *arionata* = deep violet, alluding to the colour of the shell.

Remarks: Although violet was the most frequent colour morph (Figs. 1, 3 and 5) among the specimens of *O. arionata* examined, it was not the only colour seen. Figs. 4a and 4b show a chocolate-brown specimen. Other specimens showed a mix of violet, purple, and brown (Figs. 3a,b). All other characters are consistent, with little variation.

The shape of the pillar structure of *O. arionata*, especially in the young specimen (Fig. 5), is reminiscent of pillar structure in the subgenus *Olivina*. However, the lirations on the parietal wall (Fig. 6) exclude it from this subgenus, and resemble those in the subgenus *Olivella*. On the other hand, according to Olsson (1956), Abbott (1974), and Rios (1994), the parietal wall above the pillar structure is usually concave and deeply excavated in subgenus *Olivella* s.s.; but in *O. arionata* it is straight. In *Olivella* s.s. the pillar structure does not form a tongue-like projection at the anterior end of the columella, as it may be present in *O. arionata*. Nevertheless, the absence of an operculum is a common character shared among species of the subgenus *Olivella*. The kind of lirations on the parietal wall of *O. arionata* is similar to those in *Olivella olssoni* Altena, 1971, but the two species can

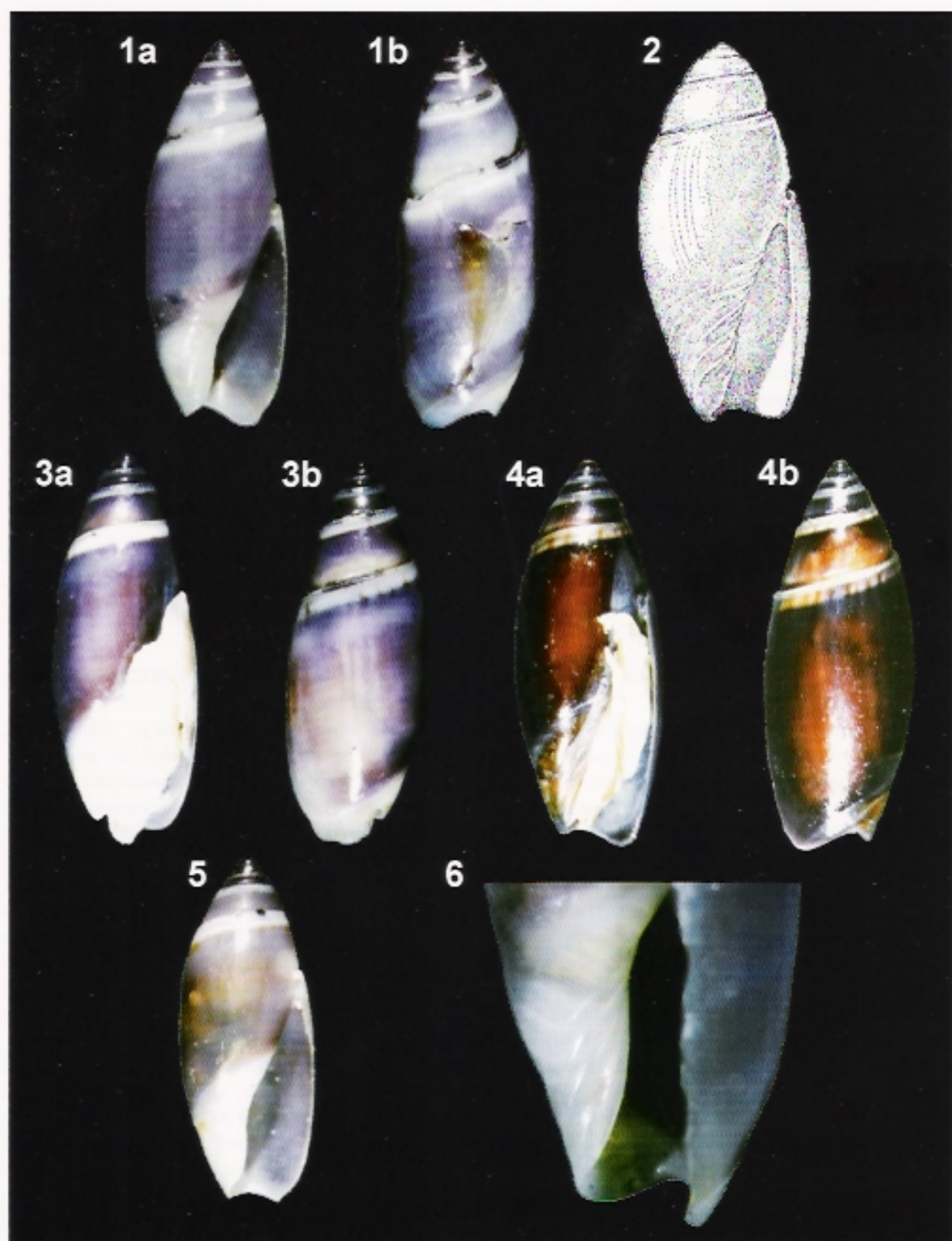
be distinguished by the shape and extent of the parietal callus, the colouration, and the more oblong shell shape in *O. arionata*. Finally, *O. arionata* is distinct from any other western Atlantic *Olivella*.

ACKNOWLEDGMENTS

To M.Sc. Paulo Márcio Santos Costa for photographs; to my students M.Sc. Alexandre Pimenta and Bianca Della Libera, who took part in the dredging activities that brought these specimens to light; and to Dr. Janet W. Reid for correcting the English text. This work was partially supported by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) Grant No. 351010/94-7.

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Figs. 1a, 1b. Holotype of *Olivella arionata* n. sp. (MORG 41031), 6.8 mm long; Fig. 2. original figure of *Olivella olivoni* Altena 1975: p. 58. Figs. 3-5. Paratypes of *Olivella arionata* n. sp. figs. 3a, 3b. Paratype (IBUFRJ 10875), 7.5 mm long; figs. 4a, 4b. Paratype (MNRJ *****), 7.3mm long; fig. 5. Paratype (ANSP *****), 5.7 mm long (young specimen); Fig. 6. Pillar structure of holotype of *Olivella arionata* n. sp. (enlarged).