

## First record of *Neopleurotomoides callebryon* (Dautzenberg & Fischer, 1896) (Gastropoda, Turridae) from Brazilian deep waters

Carlos Henrique S. Caetano<sup>1</sup>, Franklin N. Santos<sup>1</sup> & Paulo Márcio S. Costa<sup>2</sup>

<sup>1</sup> Laboratório de Zoologia de Invertebrados, Universidade do Estado do Rio de Janeiro, Rua São Francisco Xavier, 524, Maracanã, Cep. 20550-900, Rio de Janeiro, RJ, Brazil. email: chcaetano@zipmail.com.br

<sup>2</sup> Setor de Malacologia, Museu Nacional, Universidade Federal do Rio de Janeiro, Quinta da Boa Vista, São Cristóvão, Cep. 20940-040 Rio de Janeiro, RJ, Brazil. email: pmscosta@yahoo.com

### Abstract

The genus *Neopleurotomoides* is represented by two species in the North Atlantic, *N. callebryon* (Dautzenberg & Fischer, 1896) and *N. distincta* Bouchet & Warén, 1980. Here, we register for the first time the former species to "Brazilian deep waters" extending southward the geographical distribution of this species based in material obtained from Rio de Janeiro state (21°S).

Key words: Taxonomy, Mollusca, Brazil, continental slope, new occurrence

### Resumo

O gênero *Neopleurotomoides* é representado por duas espécies no Atlântico Norte, *N. callebryon* (Dautzenberg & Fischer, 1896) e *N. distincta* Bouchet & Warén, 1980. Aqui, nós registramos pela primeira vez a espécie anterior para "águas profundas brasileiras" estendendo para o sul a distribuição geográfica desta espécie baseada no material obtido do estado do Rio de Janeiro (21°S).

Palavras-chave: Taxonomia, Mollusca, Brasil, Plataforma continental, nova ocorrência.

### Introduction

The family Turridae presents the higher number of described species within the marine gastropods (Abbott, 1974; Tucker, 2004). These gastropod mollusks are world-wide distributed occurring from intertidal to depths of more than 8000 m (Bouchet & Warén, 1979, 1980; Sysoev, 1988). The extraordinary species diversity and large number of supraspecific taxa complicates their systematics (Tucker, 2004). In Brazil, the works that treat of turrid species are scarce and include Tippet (1983, 1995), Rios (1994), Barros & Jonas (1997), Simone (1999, 2005) and Absalão *et al.* (2005).

The representatives of the genus *Neopleurotomoides* Shuto, 1971 share many shell characteristics with the members of the genus *Pleurotomella* (e.g., strong axial ribs and fainter spiral sculpture, deep siphonal canal, swollen whorls) but could be distinguished mainly by the protoconch sculpture (Bouchet & Warén, 1980; Bouchet, 1990).

Bouchet & Warén (1980) reported two species of *Neopleurotomoides* for the North Atlantic, *N. callebryon* (Dautzenberg & Fischer, 1896) and *N. distincta* Bouchet & Warén, 1980. In the present study, we presents the first register of *N. callebryon* to Brazilian deep waters, a description and illustration of

*N. callebryon* based in material obtained from the North coast of Rio de Janeiro state which extends the knowledge about its geographical distribution.

Abbreviations of institution are as follows: Col. Moll. UERJ, Molluscs Collection of Universidade do Estado do Rio de Janeiro; MOM, Musée Océanographique, Monaco.

### Taxonomy

Family Turridae Swainson, 1840

Subfamily Daphnellinae Casey, 1904

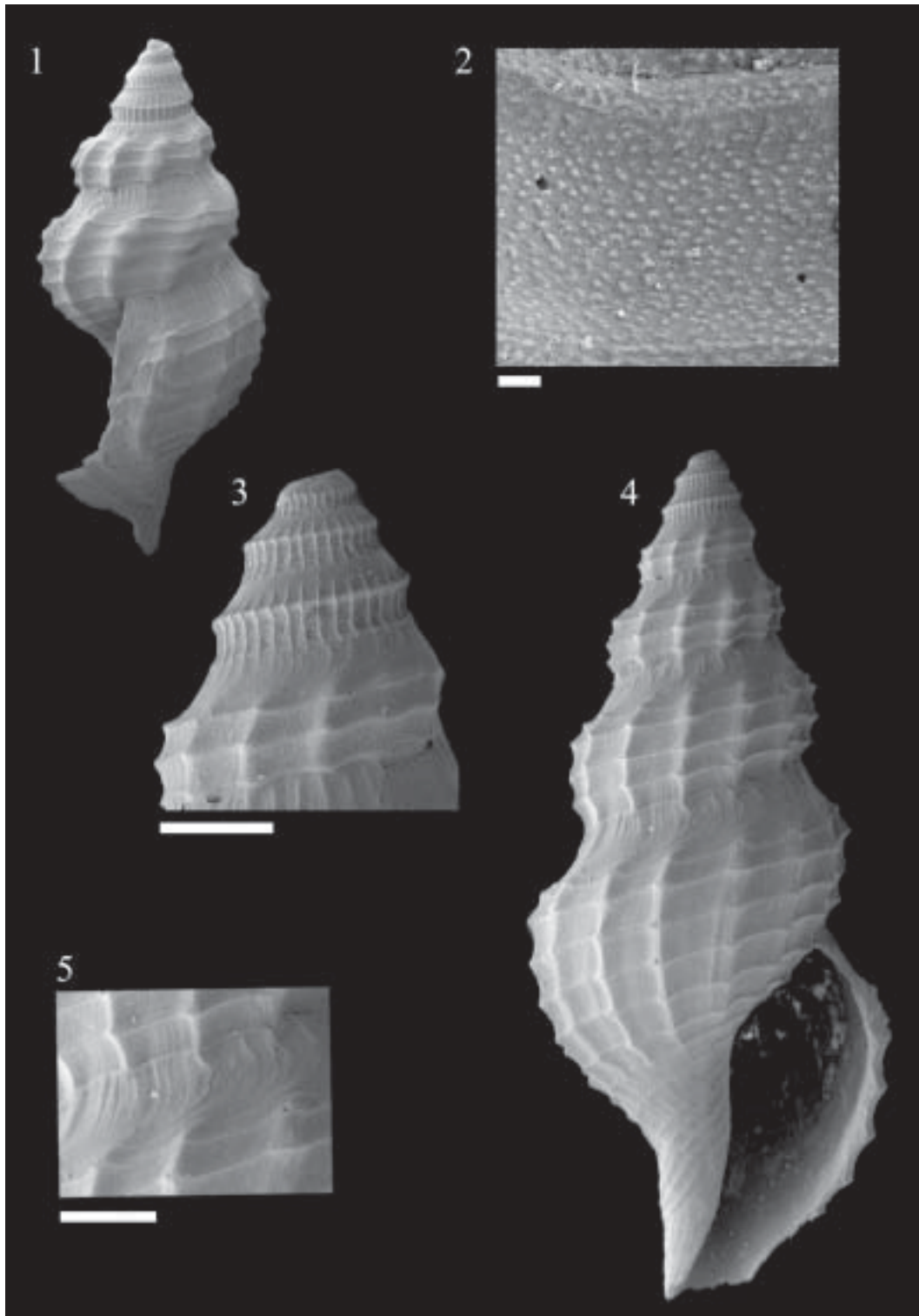
Genus *Neopleurotomoides* Shuto, 1971

*Neopleurotomoides callebryon* (Dautzenberg & Fischer, 1896)

(Figs. 1-5)

*Pleurotoma callebryon* Dautzenberg & Fischer, 1896: 428, pl. 15, fig. 15; Dautzenberg, 1927: 42, pl. 3, fig. 7; Sykes, 1906: 179.

*Pleurotomella? lineola* Dall, 1927: 311 (in part).



Figs. 1-5, *Neopleurotomoides callembrion* (from Rio de Janeiro state): 1-2, Col. Moll. UERJ 4252, total shell length = 4.0mm; 3-5, Col. Moll. UERJ 4254, total shell length = 6.7mm. Scale bars: 2 = 20mm and 3.5 = 400mm.

*Neopleurotomoides callembrion*: Bouchet & Warén, 1980: 43, figs. 100, 101, 232.

**Type locality:** Azores: *Hirondelle* expedition, stations 39 (39°26'30"N, 33°23'W, 1557 m) and 69 (38°33'25"N, 30°28'54"W, 1300 m); *Princesse-Alice* expedition, station 46 (37°42'40"N, 27°27'30"W, 1385 m).

**Diagnosis:** Shell solid, small (ca. 6 mm of length), with eight whorls and dirty white-yellowish color. Protoconch brownish with four whorls, the first sculptured by irregular granules randomly distributed and the others with a spiral keel and perpendicular axial ribs on the lower part of the whorls below the keel (Fig. 3). Teleoconch with a subsutural zone well defined (Fig. 5) and possessing bent axial riblets. All surface is sculptured by strong, nearly equidistant, axial ribs that are crossed by spiral lines making spiny projections in the intersection. Microsculptured by abundant minute granulations irregularly distributed (Fig.2). Suture moderately deep. Outer lip regularly curved and siphonal canal of medium length.

**Material examined:** Col. Moll. UERJ 4252, 21°54.26' S 39°55.99' W, 690m, 19.vi.2005, [2]; Col. Moll. UERJ 4253, 21°53.30' S 39°52.26' W, Rio de Janeiro state, 994m, 17.vi.2005, [2]; Col. Moll. UERJ 4254, 21°53.86' S 39°54.48' W, Rio de Janeiro state, 810m, 17.vi.2005, [1].

**Distribution:** Eastern Atlantic: Azores (Dautzenberg & Fischer, 1896); Western Atlantic: EUA: off Fernandina, Florida (Dall, 1927); Brazil: Rio de Janeiro.

**Habitat:** Bathyal to abyssal, at depths between 538 and 4800m (Bouchet & Warén, 1980; Rosenberg, 2006).

**Remarks:** The holotype and figured specimens of Bouchet & Warén (1980) consist of non-mature shells with less teleoconch whorls than our material. These differences are also supported by shell lengths, nearly 6 mm in our material and 3.25 mm of Bouchet & Warén (1980) material. Besides that, the pattern of microsculpture of the teleoconch (fig. 2) had not been mentioned in original description (Dautzenberg & Fischer, 1896) and subsequent works.

The congeneric *N. distincta* differs by the presence of axial ribs that are much stronger than the spiral lines and by the absence of spiny projections.

#### Acknowledgements

The authors acknowledge Dr. Ricardo Silva Absalão (UERJ) to provide access to laboratory and bibliography.

#### References

- ABBOTT, R.T. 1974. American Seashells. New York: Van Nostrand Reinhold, 663p. + 240 pls.
- ABSALAO, R.S.; PIMENTA, A.D. & CAETANO, C.H.S. 2005. Turridae (Mollusca, Neogastropoda, Conoidea) coletados no litoral sudeste do Brasil, Projeto REVIZEE "score" Central. Biociências 13: 19-47.
- BARROS, J.C.N. de & JONAS, R. 1997. Neues vorkommen von *Veprecula tornipila* McLean & Poorman, 1971 vor der brasilianischen kiiste. Schriften Zur Malakozoologie 10: 15-16.
- BOUCHET, P. 1990. Turrid genera and mode of development: the use and abuse of protoconch morphology. Malacologia 32: 69-77.
- BOUCHET, P. & WARÉN, A. 1979. The abyssal molluscan fauna of the Norwegian Sea and its relation to other faunas. Sarsia 64: 211-243.
- BOUCHET, P. & WARÉN, A. 1980. Revision of the north-east Atlantic bathyal and abyssal Turridae. Journal of Molluscan Studies, Supplement 8: 1-119.
- DALL, W. H. 1927. Small shells from dredgings off the southeast coast of the United States by the United States Fisheries Steamer 'Albatross' in 1885 and 1886. Proceedings of the United States National Museum 70: 1-134.
- DAUTZENBERG, P. 1927. Mollusques provenant des campagnes scientifiques du Prince Albert Ier de Monaco dans l'océan Atlantique et dans le Golfe de Gascogne. Resultats des Campagnes Scientifiques Accomplies sur son Yacht par Albert Ier Prince Souverain de Monaco 72 : 3-400, 9 pls.
- DAUTZENBERG, P. & FISCHER, H. 1896. Dragages effectués par l'*Hirondelle* et par le *Princess-Alice*, 1888-1895. Mémoires de la Sociét Zoologique de France 9: 395-498, pls. 15-22.
- ROSENBERG, G. 2006. Malacolog 4.0.1: A database of Western Atlantic marine Mollusca. [WWW database (version 4.0.1)] URL <http://data.acnatsci.org/wasp>.
- SIMONE, L.R.L. 1999. The anatomy of *Cochlespira* Conrad (Gastropoda, Conoidea, Turridae) with a description of a new species from the southeastern coast of Brazil. Revista Brasileira de Zoologia 16: 103-115.
- SIMONE, L.R.L. 2005. A new species of *Gemmula* (Caenogastropoda Turridae) from Brazilian deep waters. Strombus 12: 7-10.
- SYKES, E.R. 1906. On the Mollusca procured during the

"Porcupine expeditions, 1869–1870. Supplemental notes, part III. Proceedings of the Malacological Society of London 7: 173–190, pl. 16.

SYSOEV, A.V. 1988. Uljtraabissaljnje nakhodki molljuskob semejstva Turridae (Gastropoda, Toxoglossa) v Tikhom Okeane. 1. Podsemejstvo Daphnellinae. Zoologicheskij Zhurnal 67: 965–1258.

TIPPETT, D.L. 1983. A new sinistral turrid from Brazil (Gastropoda: Turridae). Nautilus 97: 135-138.

TIPPETT, D.L. 1995. Taxonomic notes on the Western

Atlantic Turridae (Gastropoda: Conoidea). Nautilus 109: 127-138.

TUCKER, J.K. 2004. Catalog of Recent and fossil turrids (Mollusca: Gastropoda). Zootaxa 682: 1-1295.

---

*Received: December 10, 2005. Accepted: January 20, 2006*