

Two new species of the genus *Pararetifusus* Kosuge, 1967 (Buccinidae: Colinae), with notes on the morphology of *Pararetifusus tenuis* (Okutani, 1966)

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ABSTRACT. Two new species, *Pararetifusus kantori* sp. nov. and *P. kosugei* sp. nov. (Buccinidae: Colinae) are described from the Bering, Okhotsk and Japan seas. New data were obtained on the morphology of the type species of the genus *Pararetifusus*, *P. tenuis*.

The type species of *Pararetifusus* was originally described as *Phymorhynchus tenuis* [Okutani, 1966] in the family Turridae. Based on the analysis of its shell and radula the species was later transferred to Buccinidae by Kosuge [1967], who therefore established a new monotypic subgenus *Pararetifusus* in the genus *Retifusus* Dall, 1916. Bouchet and Warén [1985] gave the microphotograph of the radula of *P. tenuis* and another species, which they tentatively attributed to *Pararetifusus*. In 2001, another species, *P. dedonderi* Fraussen et Hadorn, was described, and tentatively placed in *Pararetifusus*.

In the collections of the Zoological Institute (ZIN, Saint-Petersburg, Russia), several specimens of two new species were found, which should be included in *Pararetifusus* Kosuge, 1967, due to their shells and radulae. Below the descriptions of shell, radula and morphology of these new species, *P. kantori* and *P. kosugei*, are given.

Materials and methods

The preserved material was obtained from the Zoological Institute of Russian Academy of Sciences – ZIN, Saint-Petersburg, Russia. The radulae were extracted by gross dissection, cleaned using diluted bleach (NaOCl), air-dried, coated with gold and examined with a Tescan Scanning Electron Microscope.

The apical angle of the shell was measured between two tangents built symmetrically to all the whorls of the shell. If not all the whorls could touch the line simultaneously, the shell was oriented in a way to make the distance between these whorls and the tangent equal.

Terminology of the stomach morphology is given after Kantor [2003].

Abbreviations: **ao**, anterior aorta; **aoe**, anterior oesophagus; **bc**, bursa copulatrix; **bh**, body haemocoel; **bm**, buccal mass; **cg**, capsular gland; **clf**, longitudinal folds connecting oesophageal opening and the opening of anterior duct of digestive gland; **cm**, columellar muscle; **ct**, ctenidium; **dg**, digestive gland; **dgl**, duct of gland of Leiblein; **fo**, female orifice; **gl**, gland of Leiblein; **gon**, gonad; **hd**, head; **int**, intestine; **kd**, kidney; **lf**, longitudinal fold on the inner stomach wall; **mo**, mouth opening; **mrr**, medial radular retractor muscle; **n**, nerves; **nr**, nerve ring; **odp**, odontophoral protractor muscles; **odr**, odontophoral retractor muscles; **oeo**, oesophageal opening; **op**, operculum; **os**, osphradium; **p**, penis; **pma**, posterior mixing area; **poe**, posterior oesophagus; **pr**, proboscis; **prp**, propodium; **prpg**, propodial groove; **prr**, proboscis retractors; **pw**, proboscis wall; **r**, radula; **rd**, rhynchodaeum; **re**, rectum; **s**, siphon; **sd**, salivary duct; **sg**, salivary gland; **sp**, pouch of the salivary duct; **st**, stomach; **tl**, tentacle lobe; **vl**, valve of Leiblein.

Abbreviations of the shell parameters: **AL**, length of the aperture with the siphonal canal; **D**, diameter of the shell; **H**, height of the shell; **h**, height of the last whorl.

Taxonomy

Family BUCCINIDAE Rafinesque, 1815

Subfamily **Colinae** Gray, 1847

Genus *Pararetifusus* Kosuge, 1967

Type species *Phymorhynchus tenuis* Okutani, 1966 (OD) [type locality: 34°57'N, 139°21'E, 1470-1500 m, Sagami Bay, Japan].

Pararetifusus tenuis (Okutani, 1966)

(Figs. 1-3)

Phymorhynchus tenuis Okutani, 1966: 26, pl. II-21.

Descriptions of the shell and operculum were given by Okutani [1966], and figures of protoconch and operculum – by Kosuge [1967]. The radula, as