

The discovery of a new *Fusitriton* (Gastropoda, Cymatiidae) from deep waters of Tristan Da Cunha (southern Atlantic)

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Abstract: *Fusitriton glassi* sp. nov. is described from deep waters offshore Tristan da Cunha in the southern Atlantic Ocean. This new species' typical shape and sculpture serve to distinguish it from other *Fusitriton* species.

Introduction: The genus *Fusitriton* is exclusively known from the southern cold water fauna (off southern America, southern Africa and Australasia) and from the northern Pacific (northern Japan, eastern Russia, American west coast). The number of species known is poor and has always been under discussion. Subsequent publications have treated part of the described names as subspecies, while in other publications they receive specific status, depending on the interpretation of authors.

The shells have an appearance typical of cold-water species, like **Buccinidae** Rafinesque, 1815. Nevertheless, *Fusitriton* species are quite popular among collectors due to the pretty reticulate sculpture, the usually shiny surface with a snow-white colour, their large size and, not at least, their accommodation within the 'triton'-group (**Ranellidae** Gray, 1854 and **Cymatiidae** Iredale, 1913). The thick and usually hairy periostracum, especially on the northern species, invites the collector to arrange a set of two: one with periostracum, as hairy and perfect as possible, and one shiny white one, preferably of the same size. The popular name for *Fusitriton*, hairy triton, is well chosen.

In the present paper a new species, *Fusitriton glassi* sp. nov., is added to the southern Atlantic fauna.

Abbreviations:

FS: Collection Frank Swinnen.

RBINS: Royal Belgian Institute of Natural Sciences, Brussels.

Systematic account:

Family **Cymatiidae** Iredale, 1913

Genus ***Fusitriton*** Cossmann, 1903

Type species: *Triton cancellatus* Lamarck, 1816, by original designation, = *Fusitriton magellanicus* (Röding, 1798)

Fusitriton glassi sp. nov.

Type material: Holotype RBINS I.G. 33991/MT.3770. Paratype FS.

Type locality: Southern Atlantic Ocean, SE off Tristan da Cunha, Yakhont Seamount, 39°21.7' S, 7°57.7' W, 264-290 m deep by trawler Argos Vigo, 8/1/2019.

Material studied: Only the type material.

Description: Shell of medium size, up to 85 mm and rather thin but solid. The general shape is slender with a high spire, the siphonal canal relatively short, the whorls strongly convex. Sculpture reticulate with the axial ribs dominant. Protoconch and transition to teleoconch unknown, broken in both specimens. Number of

remaining teleoconch whorls 8 ½ (holotype) to 9 ½ (paratype). Suture distinct, fine, slightly waving according to presence of axial ribs. Spire whorls with 7–10 fine primary spiral cords, accentuated when crossing axial ribs. Interspaces narrow near apex becoming broader along 4th whorl, with a fine secondary spiral cord appearing along 5th whorl and fine tertiary spiral threads appearing along 6th whorl. Penultimate whorl with 12 such primary spiral cords, interspaces with 1 or 3 fine secondary spiral cords (secondary and tertiary), subsuturally with 4–6 fine secondary spiral cords. First remaining teleoconch whorls eroded, but 12 or 13 thin, axial ribs are traceable; interspaces narrow. Axial ribs become stronger, sharper, and with their number increasing along each whorl and the interspaces growing broader. Fourth whorl with 15, fifth whorl with 17 axial ribs. Penultimate whorl with 19, last whorl with 18 such axial ribs. Aperture semi-ovate, rather lens-shaped, upper part forming a narrow anal canal. Columella concave, gently curved, smooth and glossy. Outer lip thin, margin weakly curved outwards. Siphonal canal short, broad, open. Aperture and siphonal canal together about 2/5 of total shell length (holotype) or slightly less (paratype).

The colour is whitish.

Periostracum, animal and operculum unknown.

Range and habitat: Only known from the type locality. The upper plain of Yakhont Seamount is characterised by a sand with gravel bottom (see Bell et al., 2018: 4, fig. 4) with presence of *Euryalida* (Brittle stars, *Ophiuroidea*) species, at least 15 *Alcyonacea* species (soft corals, *Anthozoa*), *Antipatharia* (Black corals, *Anthozoa*), *Pennatulacea* (Sea pens, *Anthozoa*), *Scleractinia* (hard corals, *Anthozoa*) and at least 21 sponge species (*Porifera*).

Like the Tristan da Cunha Islands (Tristan da Cunha, Inaccessible, Nightingale and Gough islands) and other seamounts (Crawford, McNish, Zenker, ...), Yakhont Seamount is situated at the southwestern edge of the Walvis Ridge and separated from the Mid-Atlantic Ridge. The Tristan da Cunha EEZ is therefore regarded as a distinct marine province. The above oceanographic peculiarities, the bathymetric details and the geographical separation from both the American and African continent may result in a high degree of endemism among the deep-water fauna. The southern margin of this group of island is influenced by the Antarctic Circumpolar Current, bringing cold and nutritious water. The northern part of this group of islands is within the South central Atlantic Gyre, bringing warmer water. This results in a rich biodiversity.

Discussion: *F. glassi* sp. nov. is characterised by a slender shape, a high spire with well-formed convex whorls, a reticulate sculpture with regularly spaced spiral cords and dominant axial ribs; axial varices are absent. All other known *Fusitriton* species, which are listed below, differ in having a broader shape with shorter spire, a larger adult size, a lower number of primary spiral cords and the (usual) presence of one or more axial varices.

Etymology: *Fusitriton glassi* sp. nov. is named to honour James Glass, Director of Fisheries in the Fisheries Department at Tristan da Cunha, who made the type material available for study, for his contributions to science and malacology.

Remark: For a discussion on the placement of *Fusitriton* in the family *Cymatiidae* and the revised family classification, see Strong et al., 2019.

A discussion of the included species is beyond the scope of the present paper. I suggest consulting WoRMS to follow updates and the appearance of new publications on the taxonomic position of those names and species.

Described names:

antarcticus Powell, 1958, *Fusitriton* – Antarctica, = *Antarctoneptunea aurora* (Hedley, 1916)

aurora Hedley, 1916, *Fusitriton* – Antarctica, = synonym of *Antarctoneptunea aurora* (Hedley, 1916).

algoensis Tomlin, 1947, *Fusitriton*, = a synonym of *F. murrayi*.

brasilienis Cossigniani & Cossigniani, 2003, *Fusitriton*, – Brazil – a distinct species or a subspecies of *F. magellanicus*.

cammani Dall, 1909, *Argobuccinum* (*Fusitriton*), = a fossil, maybe a distinct species.

cancellatus Lamarck, 1816, *Triton* = a synonym of *F. magellanicus* or *F. murrayi*.

coosense Dall, 1909, *Argobuccinum* (*Fusitriton*), = a fossil, synonym of *F. oregonensis*.

corbiculatum Dall, 1909, *Gyrineum* (*mediocre* var.?), = a fossil, synonym of *F. oregonensis*.

futuristi Mestayer, 1927, *Fusitriton* – a synonym of *F. laudanus*.

galea Kuroda & Habe in Habe, 1961, *Fusitriton* – northern Pacific = *F. galea* Kuroda & Habe in Habe, 1961.

glassi sp. nov., *Fusitriton* – central southern Atlantic, described herein.

laudanus Finlay, 1926, *Fusitriton* – central southern Atlantic – by some authors regarded as a distinct species (= *F. laudanus* Finlay, 1926), by others as a subspecies of *F. magellanicus* (thus = *F. magellanicus laudanus* Finlay, 1926) or as a subspecies of *F. retiolus* (in that case = *F. retiolus laudanus* Finlay, 1926).

magellanicus Röding, 1798, *Neptunea* – southern East Atlantic – *F. magellanicus* (Röding, 1798) or *F. magellanicus magellanicus* (Röding, 1798).

midwayensis Habe & Okutani, 1968, *Fusitriton* – Hawaii = *Sassia midwayensis* (Habe & Okutani, 1968).

minuta Golikov & Starabogatov, 1976, *Conradia*, = a synonym of *F. oregonensis*.

murrayi E. A. Smith, 1891, *Lampusia* (*Priene*) – southern Africa – by some authors regarded as a distinct species (thus = *F. murrayi* (E. A. Smith, 1891)), by others as a subspecies of *F. magellanicus* (thus = *F. magellanicus murrayi* (E. A. Smith, 1891)) or, eventually, as a synonym (in that case = *F. magellanicus* (Röding, 1798)).

oregonensis Redfield, 1846, *Triton* – northern Pacific – *F. oregonensis* (Redfield, 1846),

pacifica Dall, 1909, *Argobuccinum* (*Priene*) = a synonym of *F. oregonensis*.

retiolus Hedley, 1914, *Argobuccinum* – southern Australia and New Zealand - by some authors regarded as a distinct species (thus = *F. retiolus* (Hedley, 1914)), by others as a subspecies of *F. magellanicus* (thus = *F. magellanicus retiolus* (Hedley, 1914)).

sylviaensis Weaver, 1912, *Gyrineum* = a synonym of *F. oregonensis*.

takedai Habe, 1979, *Fusitriton* – northern Pacific = *F. takedai* Habe, 1979 (a rare species).

tugaruensis Nomura & Hatai, 1935, *Ranella* = a synonym of *F. oregonensis*.

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Plate:

1-6: *Fusitriton glassi* sp. nov., southern Atlantic Ocean, off Tristan da Cunha, at Yakhont Seamount, 39°21.7' S, 7°57.7 W, 264-290 m deep.

1-3: 79.1 mm, holotype in RBINS I.G. 33991/MT.3770.

4-6: 85.3 mm, paratype in coll. Frank Swinnen.



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