

***Odostomia crassa* Jeffreys, 1884 junior synonym of *Tibersyrnola unifasciata* (Forbes, 1844), new combination (Gastropoda Pyramidellidae)**

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ABSTRACT

Following the comparison with photos of type material of *Odostomia crassa* Jeffreys, 1884, (Gastropoda Pyramidellidae) deposited at the British Museum of Natural History, and further observations on specimens from whole Mediterranean, *O. crassa* is proved to be junior synonym of *Eulimella unifasciata* (Forbes, 1844). The latter is here placed in genus *Tibersyrnola* Laws, 1937 on the basis of the constant presence of flutings inside the whorls.

KEY WORDS

Pyramidellidae; *Tibersyrnola*; new combination; recent; Mediterranean Sea.

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INTRODUCTION

The species *Odostomia crassa* Jeffreys, 1884 (Gastropoda Pyramidellidae) was described on partially broken specimens and fragments collected in north-eastern Atlantic and Mediterranean (Adventure Bank, Sicily channel, 30-92 fms [corresponding to 50-150 m]). In the original description the new species was compared only with *Eulimella scillae* (Scacchi, 1835) and not with *E. unifasciata*, that is also reported and drawn in the same work. We suppose that this is due to the lack of complete specimens, and the impossibility to see the shell profile, as well as the lack of brown spiral band over the whorls, possibly due to the bad preservation of studied fragments.

ORIGINAL DESCRIPTION (Jeffreys, 1884: 350): "*Shell cylindrical, remarkably thick and strong, opaque, and glossy: sculpture none, except microscopic lines of growth and the grooves with the outer lip hereafter mentioned, as well as the periphery being slightly angulated: colour ivory-white:*

spire long and finely tapering: whorls 5 only in the fragments now described, although there would be from 8 to 10 in perfect specimens; they gradually increase in size and are flattened: suture slight, rounded below: outer lip incrassated, furnished inside with 8 to 10 spiral striae or flutings, like those in O. conoidea, O. tenuis, and O. conspicua, as also in O. costaria and other Crag species: inner lip forming an unusually thick and broad glaze on the pillar: umbilicus none: tooth large, solid, prominent, and winding round the pillar. Largest fragment L. 0.25 [about 6 mm], B 0.085 [about 2.1 mm]."

The species was figured by Jeffreys (1884: tav. XXVI, figg. 7, 7a), but the original drawings, here reported (Figs. 1, 2), are not clear and have not allowed a sure recognition of this species by the later Authors. Jeffreys compared the new species only with *E. scillae* (Scacchi, 1835), stating that main characters for separation are the "*strong tooth and inside fluting of the outer lip*". The fluting of the outer lip seems to be the only character that separate it from the other Lusitanic species.

Nordsieck (1972) found that the Jeffreys's name was pre-occupied by *Odostomia crassa* Thompson, 1845 and proposed the new name *Syrnola (Tibersyrnola) wenzi* Nordsieck, 1972.

Van Aartsen (1984), after examination of the type material, concludes that this species is known only for the original description and some fragments at the British Museum of Natural History, no one complete of protoconch.

This species was included in the recent lists of species (Piani, 1980; Bruschi et al., 1985; Sabelli et al., 1990; WORMS (World Register of Marine Species, <http://www.marinespecies.org/aphia.php?p=taxdetail&id=141048> searched on 21/03/2014) with full validity, while in CLEMAM (Check List of European Marine Mollusca Database, <http://somali.asso.fr/clemam/index.clemam.html> searched on 11/01/2014) it is considered doubtful.

MATERIAL AND METHODS

Thanks to the courtesy of Dr. Kathy Way and Ms. Andreia Salvador (BMNHL) we obtained the photos of the two broken specimens of the type series deposited at the BMNHL (Figs. 3, 4) with the number 1885.11.5.1998. These fragments correspond exactly with the original Jeffreys's drawings (1884, tav. XXVI, figg. 7, 7a). The larger one (Fig. 3) shows the sign of some fractures on the last whorl, that may have caused the unusual periphery/base profile. The two fragments are in very poor conditions and it is quite surprising that Jeffreys decided to describe a new species based on a so poor material!

In addition we studied about 80 shells of *Eulimella unifasciata* (Forbes, 1844) collected in various localities, covering the whole Mediterranean, at depth ranging from 120 and 500 m (coll. CSR, INR and PMF).

ABBREVIATIONS. British Museum of Natural History, London = BMNHL; Carlo Smriglio collection (Rome, Italy) = CSR; Italo Nofroni collection (Rome, Italy) = INR; Pasquale Micali collection (Fano, Italy) = PMF.

RESULTS

Based on the original description/drawings and the photos of type material, the main character, which is also the unique one, useful for the specific

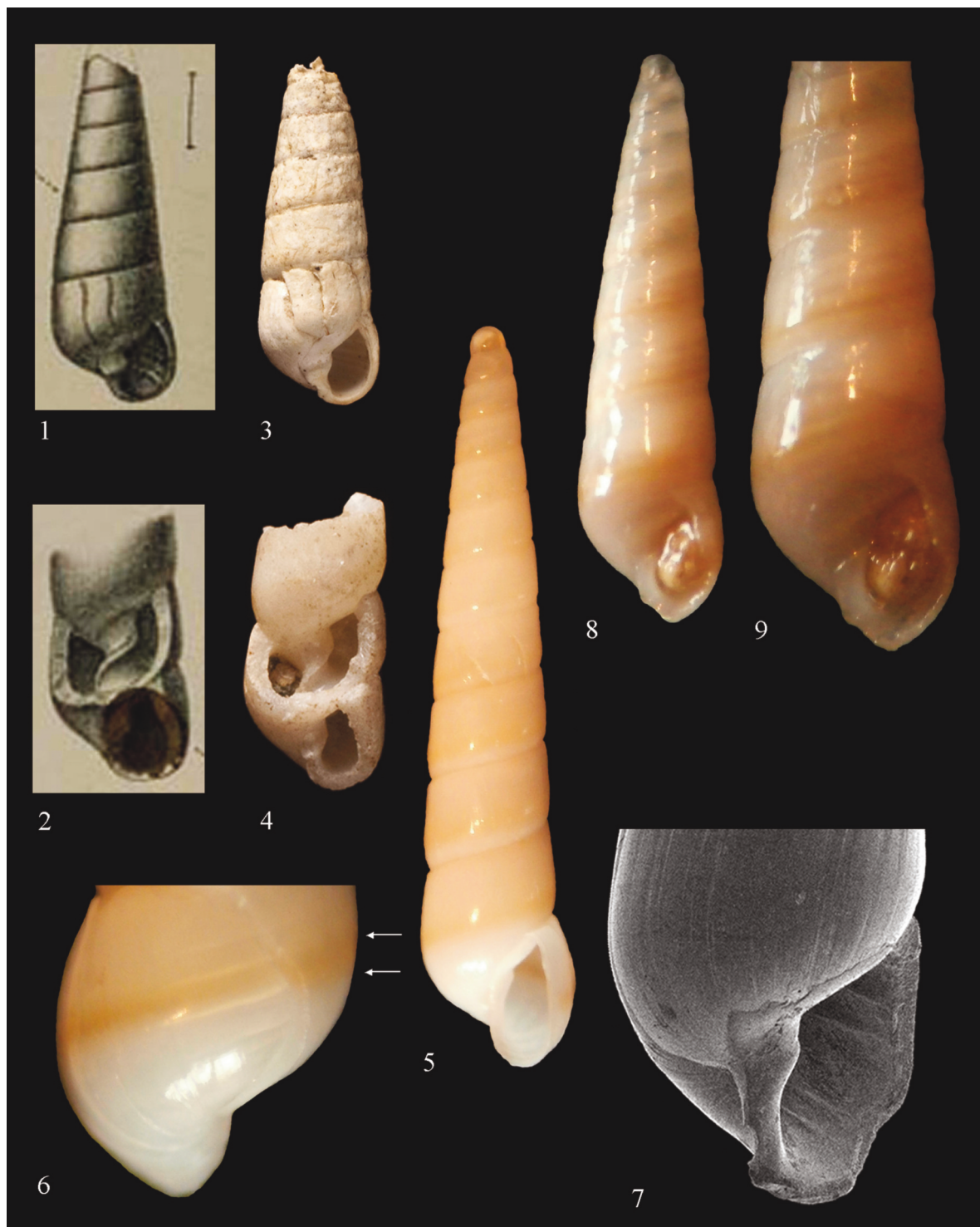
separation is the “*outer lip incrassated, furnished inside with 8 to 10 spiral striae or flutings*”. This character has been re-evaluated in the more similar mediterranean *Eulimella* species.

We were really surprised to find out that all the examined specimens of *E. unifasciata*, as intended by all European Authors, show the flutings inside the outer lip, but these are well visible only in fresh and transparent specimens (Figs. 8, 9), that are rarely found; the flutings are observable both in fresh specimens and in old ones but only in fresh and intact specimens it is possible to observe the flutings in transparency. In addition the external lip edge is thin, sharp and smooth, and does not show any sign of internal flutings (Figs. 5, 6), because these are present up to a quarter of whorl from the aperture and became visible only in specimens missing the final portion of last whorl (Fig. 7). In transparent specimens it is possible to observe that the flutings appear just after the embryonic whorls, in number of 3-4 and increase up to 6-8 on the last whorl.

Jeffreys (op. cit.) just after the description of *O. crassa*, lists *O. unifasciata*, pointing out that a specimen from the Gulf of Naples “*shows also a grooved or crenated mouth*”.

Di Geronimo & Panetta (1973: 77) reported *Eulimella unifasciata* (Forbes, 1844) for the Gulf of Taranto, pointing out that “*la superficie del labbro esterno, che è rotto presenta dei solchi piuttosto marcati* [the surface of the external lip, that is broken, shows marked grooves]”, but also *Eulimella crassa* is reported in the same work as valid species, although the figured specimen is of doubtful determination. Based on above observations we consider that *Odostomia crassa* Jeffreys, 1884 should be considered a junior synonym of *Eulima unifasciata* Forbes, 1844.

As concern the genus where to include this species in, almost all Authors placed it in genus *Syrnola* A. Adams, 1860 with *Syrnola gracillima* A. Adams, 1860 as type species by monotypy. This genus was described as follows (A. Adams, 1860: 405) “*Testa subulata, recta, vitrea, polita; anfractibus planis; suturis impressis. Apertura oblonga; labio in medio plica obliqua instructo; labro simplici, acuto*”. Van Aartsen (1994: 85), when dealing with the use of this genus, states: “*It is my strong belief, however, that a fold on the columella is not enough to place species in Syrnola*”; Author also states that there is a possible type material of *S. gracillima*, at the Museum of Victoria, consisting of the lower whorls only, which



Figures 1–9. *Tibersyrnola unifasciata* (Forbes, 1844). Figs. 1, 2. Original drawings. Figs. 3, 4. Type specimens used for original drawings. Fig. 5. Gorgona Island, LI, - 400 m (height 8.2 mm), the flutings inside the aperture are not visible in front view. Fig. 6. Same specimen of figure 5, the flutings are visible in transparency from the back of aperture (see arrows). Fig. 7. Central Tyrrhenian sea, -380 m; flutings visible in a specimen having broken outer lip. Fig. 8. Anzio, RM, -400 m (4.4 mm), flutings not visible. Fig. 9. Same specimen of figure 8; flutings visible inside all whorls using greater magnification and proper light angle.

does not correspond with original description due to lack of columellar tooth. Really also *E. unifasciata*, if not broken, has a smooth internal lip, therefore a check of type material of *S. gracillima* could clarify the presence of internal grooves.

Van Aartsen (1994) and van Aartsen et al. (2000) have not evaluated the applicability of genus *Tibersyrnola*, as done by Nordsieck.

The subgenus *Tibersyrnola* used by Nordsieck (1972) was proposed by Laws (1937: 303, 309) (type species *Syrnola semiconcava* Marshall et Murdoch, 1923 fossil from New Zealand) with the following characters definition: “*The shell for which this name has been provided have all the characters of Syrnola, but in addition the outer lip is strongly lirate internally*”. This taxon has been recently accepted by Beu & Raine (2009) and later on used with the same meaning by Robba (2013).

For the species dealt with in the present note, we therefore propose the binomen *Tibersyrnola unifasciata* (Forbes, 1844). Based on above conclusions and the opinions of Dautzenberg & Fischer (1896) and Peñas & Micali (1999) the updated synonymy shall be:

***Tibersyrnola unifasciata* (Forbes, 1844) (*Eulima*)**

- = *Odostomia crassa* Jeffreys, 1884 not Thompson, 1845, nec *O. pallida* var. *crassa* O. G. Sars, 1878
- = *Syrnola* (*Tibersyrnola*) *wenzi* Nordsieck, 1972 new name for *Odostomia crassa* Jeffreys, 1884 not Thompson, 1845
- = *Eulimella smithi* Verrill, 1881

In the Mediterranean this is the only species to be placed in genus *Tibersyrnola* while some others distributed along the West Africa coast, as *Eulimella endolamellata* Schander, 1994, *E. angeli* Peñas et Rolan, 1997, *E. vanhareni* van Aartsen, Gittenberger et Goud, 1998, *E. boydae* van Aartsen, Gittenberger et Goud, 2000, *Turbonilla candida* de Folin, 1870 (= *Odostomia lamothei* Dautzenberg, 1912 = *O. etiennei* Dautzenberg, 1912), could also be placed in this genus.

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Image courtesy of Harry Taylor, NHMUK Photographic Unit. Thanks also to Dr. Andrea Di Giulio (Dipartimento di Scienze, “Roma Tre” University, Rome, Italy) for the SEM photos, executed at LIME

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REFERENCES

- Aartsen J.J. van, 1994. European Pyramidellidae: IV. The genera *Eulimella*, *Anisocycla*, *Syrnola*, *Cingulina*, *Oscilla* and *Careliopsis*. Bollettino Malacologico, 30: 85–110.
- Aartsen J.J. van, Gittenberger E. & Goud J., 2000. Pyramidellidae (Mollusca, Gastropoda, Heterobranchia) collected during the Dutch CANCAP and MAURITANIA expeditions in the south-eastern part of the North Atlantic Ocean (part 2). Zoologischen Mededelingen, 74[1998](1): 1–50.
- Adams A., 1860. On some New Genera and Species of Mollusca from Japan. Annals and Magazine of Natural History, (3) 5: 405–413.
- Beu A.G. & Raine J.I., 2009. Revised descriptions of New Zealand Cenozoic Mollusca from Beu and Maxwell (1990). GNS Science miscellaneous series n. 27.
- Bruschi A., Ceppadomo I., Galli C. & Piani P., 1985. Caratterizzazione ecotipologica delle coste italiane. Catalogo dei molluschi conchiferi viventi nel Mediterraneo. Ed. ENEA, Roma, 111 pp.
- Dautzenberg PH. & Fischer H., 1896. Dragages effectués par l'Hirondelles et par la Princesse Alice, 1888–1895. Memoires de la Société Zoologique de France, 9: 1–138.
- Forbes E., 1844. Report on the Mollusca and Radiata of the Aegean sea, and on their distribution, considered as bearing on Geology. Reports of the British Association for the Advancement of Science for 1843: 130–193.
- Di Geronimo I. & Panetta P., 1973. La malacofauna baltica del Golfo di Taranto. Conchiglie, 9: 69–121.
- Jeffreys J.G., 1884. On the Mollusca procured during the Lightning and Porcupine expeditions. VIII. Proceedings of the Zoological Society of London, 52: 341–372.
- Laws C.R., 1937. Review of the tertiary and recent Neozoic Pyramidellid Molluscs. No. 4 - The Syrnolid genera. Transactions and Proceedings of the Royal Society of the New Zealand, 67: 303–315, pl. 43–44.
- Nordsieck F., 1972. Die Europäischen Meeresschnecken. Gustav Fischer Verlag. Stuttgart, 327 pp.
- Peñas A. & Micali P., 1999. *Eulimella carminae* spec. nov. (Gastropoda: Pyramidellidae) from Southern Spain. Iberus, 17: 109–113.
- Piani P., 1980. Catalogo dei molluschi conchiferi viventi nel Mediterraneo. Bollettino Malacologico, 16: 113–224.
- Robba E., 2013. Tertiary and Quaternary fossil pyramidelloidean gastropods of Indonesia. Scripta Geologica, 144: 1–195.
- Sabelli B., Giannuzzi-Savelli R. & Bedulli D., 1990. Catalogo annotato dei molluschi marini del Mediterraneo. Vol. 1. Ed. Libreria Naturalistica Bolognese, Bologna, 348 pp.