A NEW SPECIES OF *TURBONILLA* (RISSO, 1826) FROM SE TURKEY (PYRAMIDELLIDAE: TURBONILLINAE)

Panayotis Ovalis[1] & Constantine Mifsud[2]

Summary: A new species, *Turbonilla cangeyrani* nov. sp., is described from Tasucu, SE Turkey.

Keywords: Mollusca, Gastropoda, Pyramidellidae, *Turbonilla*, Tasucu, SE Turkey, Eastern Mediterranean.

Introduction: The genus *Turbonilla* is represented in the European seas with about fifty species, while those recorded from the Mediterranean Sea include about thirty of these species. A few of the West African species have recently been discovered as also present in the western Mediterranean. The genus is characterised by a tall shell with axial ribs, sometimes with spiral sculpture, an intorted type of protoconch, mostly of type A (Aartsen 1981), and the lack of a columellar tooth or fold. Most of the species are white but a few possess a particular colouration. Recently a few European species, which in the past had been placed in the genus *Turbonilla*, have now been assigned to other genera on the basis of particular characters of the shell.

During a dive at Tasucu, SE Turkey the first author collected a sample of bioclastic detritus from a depth of 8 metres. During the sorting out of the detritus, twenty-six specimens of a *Turbonilla* sp. were set aside for further examination. From their particular sculpture they were different from any of the known Mediterranean, the West African and Indo-Pacific species, and is described herein as new to science.

Systematics

Superfamily: Pyramidelloidea Gray, 1840
Family: Pyramidellidae Gray, 1840
Subfamily: Turbonillinae Bronn, 1849
Genus: *Turbonilla* Risso, 1826
Turbonilla cangeyrani nov. sp.

Material studied: All studied material was collected from Tasucu, SE Turkey in bioclastic detritus at a depth of 8m by the first author during a dive in August 2016. In all twenty-six specimens were found in this sample of the detritus.

Holotype: SE TURKEY, Tasucu, VIII. 2016, in bioclastic detritus from 8 m, leg. P. Ovalis.
It is deposited in the Museo Nacional de Ciencias Naturales of Madrid, Spain, MNCN 15.05/60184.
Paratypes: 25 specimens bearing the same data as the holotype are deposited as follows:
The Museo de Historia Natural of the University of Santiago de Compostela Spain, 100626/1;
The National Museum of Natural History, Mdina Malta, NMNHM 2945/1;
The collection of P. Ovalis (19 specimens);
The collection of C. Mifsud M1682a/2;
The Kemal Geyrani Museum, Turkey, 005910/1 (http://www.cangshells.com/emain.html)
The Steinhardt Museum of Natural History, Tel Aviv University Israel, SMNH MO 81707/1.

Description: Shell small, height 2.8mm, width 1.2mm, (biggest specimen), white, tall and turriculate, consisting of up to six teleoconch whorls. Protoconch of "type A" (van Aartsen, 1981) (Fig. 1-C). Sculpture consisting of about sixteen, well-defined opisthocline axial ribs, which are terminated abruptly at the periphery of the body whorl by a chord. In a few specimens the thickness of the ribs and their interspaces is variable (Fig. 1-D). The sutures are well impressed. The whorls are slightly rounded

with the first three having a spiral chord situated about a quarter of the height above the sutures (Fig. 1-A, B) and overriding the axial ribs. There are two spiral chords on the fourth and fifth whorls and a third one on the body whorl (Fig. 1-B). There is also a characteristic smooth spiral chord on the base of the shell. Aperture rather rectangular, with a sharp outer lip and with the base slighly flaring (Fig. 1-A). Columella with a gentle curve and without any tooth or fold. There is no umbilicus or chink. The animal is unknown.

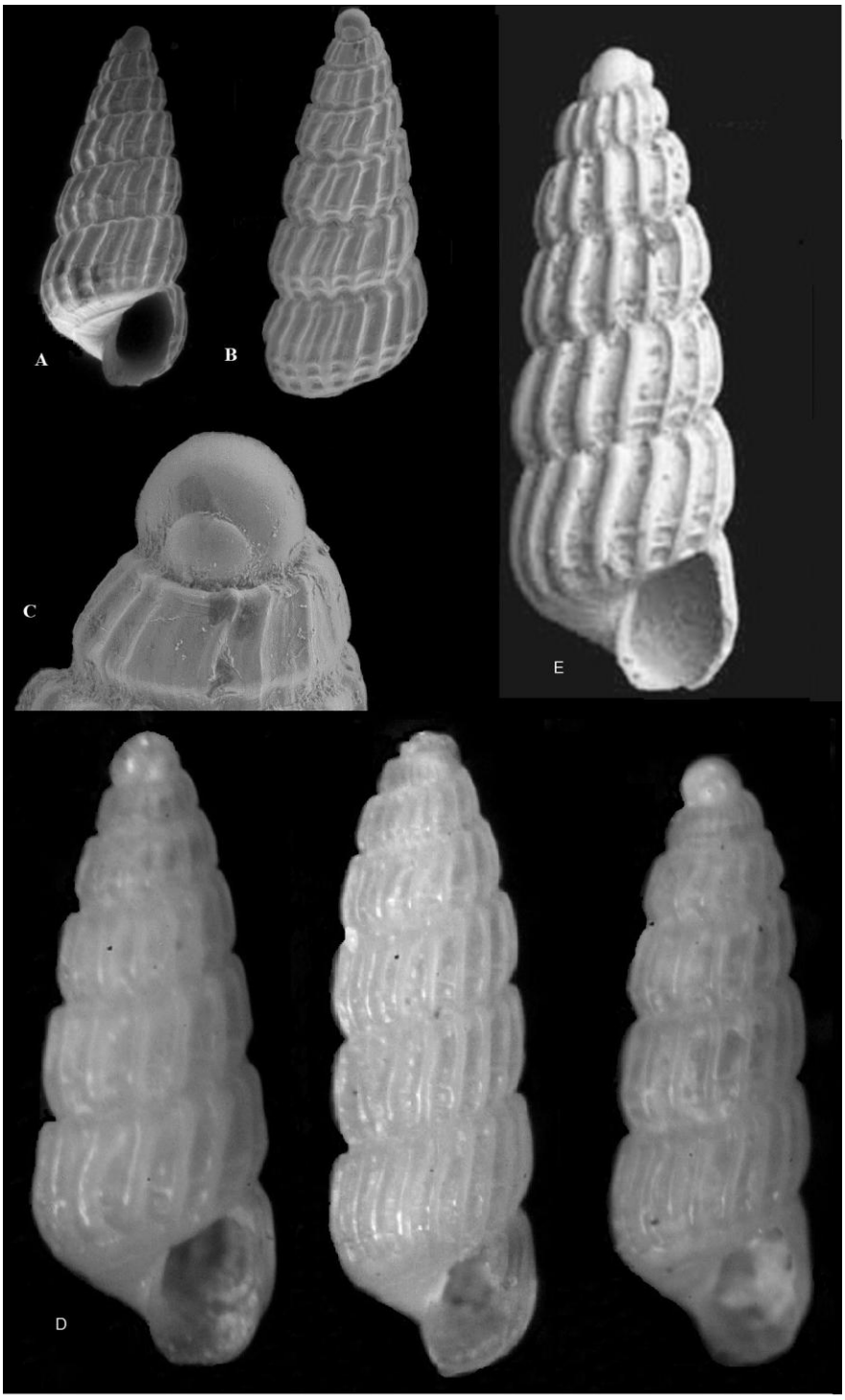

Fig. 1. A-C: *Turbonilla cangeyrani* nov. sp. Holotype: A-B. Views showing the opisthocline axial ribs, the particular spiral sculpture and the base of the shell with the smooth spiral chord. C. The 'Type A' protoconch. **Fig 1. D:***Turbonilla cangeyrani* nov. sp. demonstrating the sculpture variability of the axial ribs. **Fig 1. E.** Holotype of the fossil sp., *Turbolidium schroederi* Wissema, 1947, after Robba 2010.

Derivatio nominis: This species is named *cangeyrani,* after the Turkish malacologist's Kemal Geyran's son, who lost his life at a very young age.

Discussion: Robba (2013) had placed similar species of *Turbonilla* with the characteristic spiral chords on the upper whorls and the interruption of the axial ribs at the periphery of the last whorl in his new genus *Turbolidium*. He further assigned *Turbonilla unilirata* Bush, 1899, *Tragula unilirata* Saurin, 1959, *Turbonilla franciscoi* Peñas & Rolán, 1997 and *Turbonilla qenenoji* Peñas & Rolán, 2010, to the same genus. He erected the fossil *Turbonilla schroederi* Wissema, 1947 as the type species.*Turbonilla schroederi* (Fig. 1-E) is the species which is most similar to *Turbonilla cangeyrani* nov. sp.
However, in *T. schroederi,*
1. The spiral chords on the whorls are visible only in the interspaces;
2. The axial ribs continue to the base, albeit slightly marked; and
3. It lacks the characteristic spiral chord on the base (Fig.3).

Moreover, the differences of *Turbolidium* from *Turbonilla* have as yet to be analysed and assessed (Rolán, personal communication).

To date, several species of marine fauna have penetrated into the Mediterranean through the Suez canal, and it is not suprising that the new species may also be a new *Lessepsian* alien entering the canal or having been introduced through shipping ballast water. In the Mediterranean about sixteen alien pyramidellids are known to have entered from the Red Sea, but of these only one species of *Turbonilla* has been recorded, *Turbonilla edgari* (Melvill, 1896).

According to Peñas and Rolan (personal communication) *Turbonilla cangeyrani* nov. sp., does not compare with any of the known Mediterranean, West African and Indo-Pacific species. We also compared the new species with figures and descriptions in Melvill (1910) which were collected from the Persion Gulf. However none matched our species. Moreover, the recorded Lessepsian pyramidellids and the type material are shallow water species while the species described by Melvill were all dredged from deep water. For the time being we place the new species in the genus *Turbonilla* to avoid additional confusion to this already problematic family.

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[1] Agisilaou 37-39, Tzitzifies/Kallithea, 17674 Athens, Greece. ovalis66@windowslive.com

[2] 5, Triq ir-Rgħajja, Rabat RBT2486, Malta. kejdon@go.net.mt [corresponding author]