

**The westernmost *Turanena* species: *T. katerinae* spec. nov.  
(Gastropoda Pulmonata: Buliminidae)**

E. GITTENBERGER

Nationaal Natuurhistorisch Museum, P.O. Box 9517,  
NL 2300 RA Leiden, The Netherlands

*Turanena katerinae* from western Crete is described as new to science. Actually it is the westernmost *Turanena* species known.

Key words: Gastropoda, Pulmonata, Buliminidae, *Turanena*, taxonomy, Greece.

In recent years our systematic and biogeographical knowledge concerning the genus *Turanena* increased considerably (see: Bank & Menkhorst, 1992; Gittenberger & Menkhorst, 1993). Therefore, it is relatively easy to recognize a *Turanena* species from the island of Crete as both new to science and biogeographically interesting because of its occurrence far to the west in the South Aegean island arc.

The collection of the Nationaal Natuurhistorisch Museum (Leiden) is referred to as NNM.

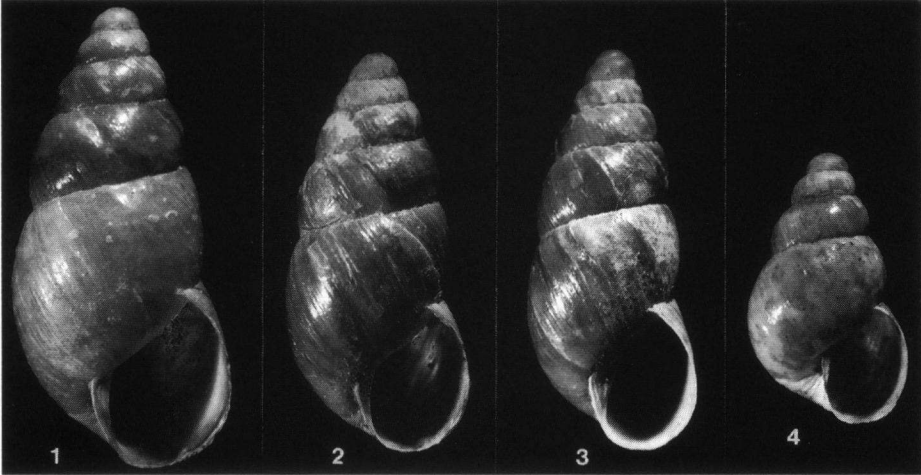
***Turanena katerinae* spec. nov.**  
(fig. 4)

Material.-- Greece, Crete, Khania: 0.1-0.2 km NE. of the mountain cabin "Katifigio Kalergi" (= 4 km E. of Omalos) [UTM GE6715], below limestone cliffs, among a bushy vegetation, at 1600 m altitude (NNM 56806/ holotype [leg. 5.v.1993], 56808/1 paratype [leg. 29.iii.1989], and 56807/7 paratypes [leg. 5.v.1993]); 6 km S. of Omalos, Gingolos Mtn. [UTM GE6509] (Colln. W.J.M. Maassen/1 paratype).

Diagnosis.-- Shell corneous, up to about 7 mm high and 4 mm broad; its aperture without a reflected and/or prominently thickened lip.

Description.-- Shell conical, with 4 1/2 to 4 3/4 globular whorls. Umbilicus narrow. Teleoconch whorls with narrowly spaced, irregular riblets. Body whorl not ascending in front. Aperture measuring slightly over 40% of the total shell height. Apertural border simple, nor clearly thickened and reflected only at the columellar side. The palatal border inserts on the body whorl in the middle between the suture and the insertion of the columellar border. Parietal and columellar sides of the aperture about equally long. The shell-surface, including the riblets, is covered by an olive-brown periostracum.

The five (sub)adult shells from near "Katifigio Kalergi" have the following dimensions:



Figs. 1-4. *Turanena* spec. (all in NNM). 1-3, *T. carpathia* (Boettger, 1885). 1, Rhodos, northern slope of Profitis Ilias Mtn., near Salakos (8 km NE. of Embona), 680 m altitude [UTM NA81], R.A. Bank leg.; actual height 12.1 mm. 2, 3, Karpathos, 4 km NW. of Volada, 1000-1200 m altitude [UTM NV13], E. & E.J. Gittenberger leg.; actual height 10.5 and 10.6 mm. 4, *T. katerinae* spec. nov., holotype, Crete, Khania, NE. of the "Katifigio Kalergi", 1600 m altitude [UTM GE6715], E. Gittenberger leg.

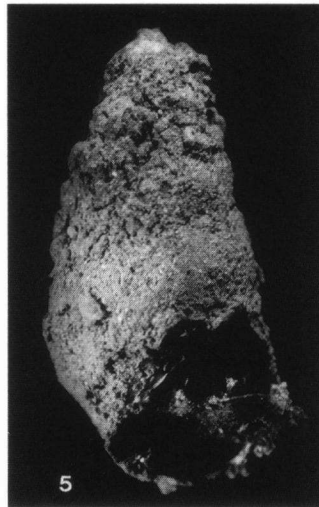


Fig. 5. *T. carpathia* (Boettger, 1885), shell of a living specimen, camouflaged with dirt (locality data: see figs. 2, 3); actual height 9.7 mm (NNM).

height	width	whorls	colln. no.
7.0	4.1	4 3/4	56808
7.0	3.8	4 3/4	56807
6.1	3.6	4 1/2	56806 (holotype)
5.9	3.6	4 1/4	56807
5.2	2.9	4 1/2	56807

Anatomical data are not known.

Differentiation.-- Shells of *T. katerinae* are intermediate in shape, especially slenderness, between those of *T. hemmeni* Bank & Butot, 1990, and *T. zilchi* Gittenberger & Menkhorst, 1993, which are clearly more slender and relatively broader, respectively (Gittenberger & Menkhorst, 1993). The geographically nearest congeneric species, viz., *T. carpathia* (Boettger, 1885) from the islands of Rhodos (fig. 1) and Karpathos (figs. 2, 3), can easily be distinguished by much bigger shells, measuring 12.7-14.3 mm in height and 5.1-5.6 mm in width (Bank & Menkhorst, 1992: 151).

Notes.-- This is the species referred to by Bank & Menkhorst (1992: 147, 148, fig. 77 [map]) and Vardinoyannis (1994: 169, map 114). It cannot be confused with any other Cretan species. According to the original description and figures, shells of *Bulimus olivaceus* L. Pfeiffer, in Philippi (1846: 124, pl. 5 fig. 6) are about twice as big and clearly more spindle-shaped; evidently this concerns a *Mastus* species.

While looking for this species, three times, I had not yet the experience of collecting *T. carpathia* high in the mountains of the island of Karpathos. That species turned out to be extremely well camouflaged, its shell covered entirely with dry mud (fig. 5), while aestivating on twigs of dense bushes. If *T. katerinae* is similar in this respect, that might explain its seeming rareness.

Because the genus *Turanena* is widely distributed in Asia Minor and more to the east (Gittenberger & Menkhorst, 1993), and known from the islands of both Rhodos and Karpathos (Bank & Menkhorst, 1992), *T. katerinae* should be seen as its westernmost representative along the South Aegean island arc. It would not be surprising if this or another *Turanena* species would be found at high altitudes elsewhere, more to the east, in Crete.

Derivatio nominis.-- This species is dedicated to Dr. Katerina Vardinoyannis, on the occasion of her recently completed Ph. D. thesis on the biogeography of land snails in the Aegean island arc.

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