

**A new *Albinaria* species from Central Crete  
(Gastropoda Pulmonata: Clausiliidae)**

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*Albinaria ariadne* spec. nov. is described from Central Crete. The new taxon belongs to the so-called *teres*-group.

Key words: Gastropoda, Pulmonata, Clausiliidae, *Albinaria*, taxonomy, Greece.

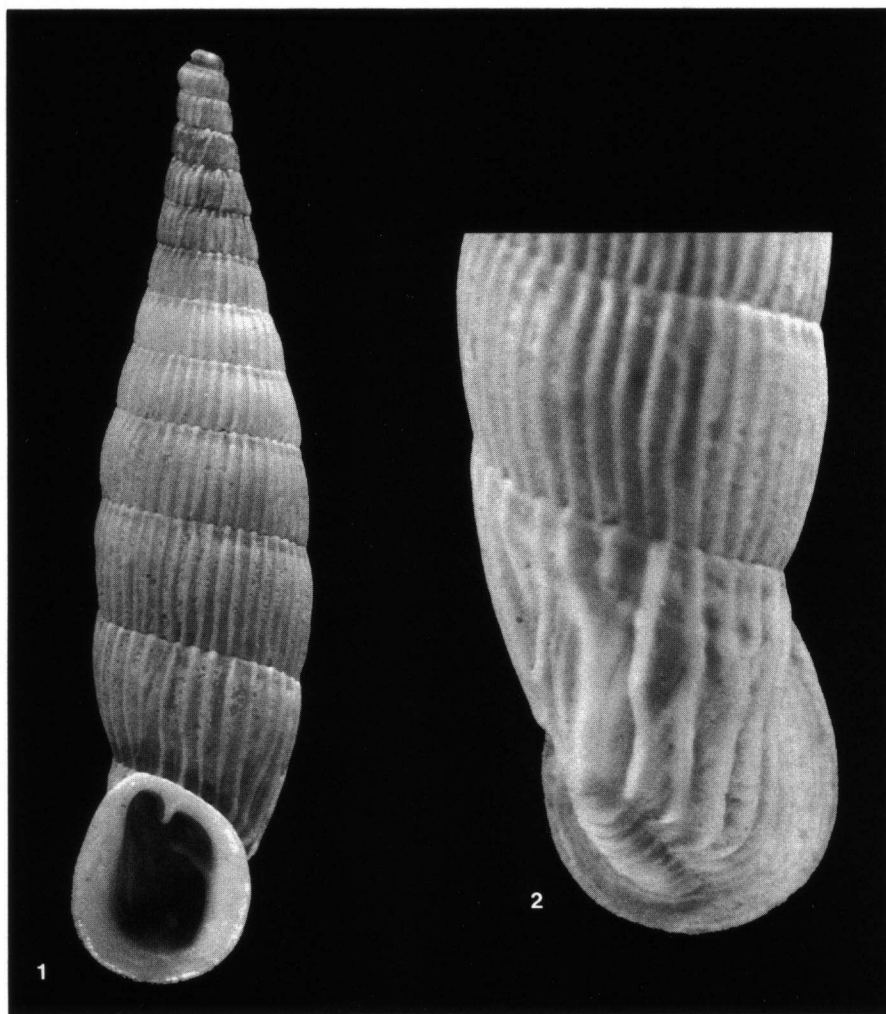
Within the framework of a multidisciplinary study on the evolutionary history and the systematics of the genus *Albinaria* Vest, 1867, the species from Central Crete receive special attention. During recent fieldwork in this area, a number of new taxa was discovered. Those belonging to the so-called *candida*-group have been described in a previous paper (Schilthuizen & Gittenberger, 1990). In the present paper a new species from the *teres*-group is introduced.

In the following text, the abbreviation HNC is used for Haus der Natur, Cismar, Germany; NNM for Nationaal Natuurhistorisch Museum, Leiden, The Netherlands. Collection numbers preceded by the letter "A" refer to specimens kept in 70% ethanol. The other numbers apply to dry shells. The number of specimens is indicated after the slash.

***Albinaria ariadne* spec. nov.  
(figs. 1-2)**

**Diagnosis.** — An *Albinaria* with shells of intermediate size and a concave upper part of the spire. Whorls flattened with straight, distinct ribs. Lip of the aperture broadly reflected. Basal keel and basal furrow strongly developed. Cervical ribs prominent, somewhat irregular.

**Description.** — Shell slender, upper part of the spire slightly concave in outline, with 11-14 flattened whorls. Teleoconch whorls provided with narrow, straight ribs, each of which is terminally somewhat widened; they are present from the second whorl onwards. Rib-density on the penultimate whorl on average 4 per mm. On the lower whorls, fine, here and there obsolete growth-lines run parallel with the ribs. Body-whorl with quite a prominent basal keel, which is separated from the (indistinct) dorsal keel by a basal furrow. The cervical ribs are strongly developed, more so than those on the penultimate whorl; they are somewhat irregular and some of them dichotomous towards the suture. Between the cervical ribs, the growth-lines no longer run parallel with the dominant sculpture. Aperture relatively large, oval. Peristome always detached, with a broadly reflected lip. The shell is translucently yellowish. Except for the apex, a thin, irregularly arranged white surface-layer is usually present.



Figs. 1-2. *Albinaria ariadne* spec. nov., holotype (NNM 56525), Crete, Nomos Rethimnis, 0.2 km along the road from Orthes to Andiskari (3.6 km S. of Perama), 280 m alt. (actual shell height 18.0 mm). Photographs A. 't Hooft (Leiden).

Parietalis high (on average 0.35 mm) and sharp. The spiralis is not in line with the parietalis and starts at the level where the parietalis becomes obsolete. Columellaris high; apically, it is slightly outpaced by the spiralis. Subcolumellaris in oblique view distinctly visible. Lunula situated dorsally. Anterior upper palatal fold absent. Clausilial disc approximately three times as long as wide, its tip and basal edge strongly thickened.

Shell height 15.0-19.3 mm; width 3.6-4.4 mm.

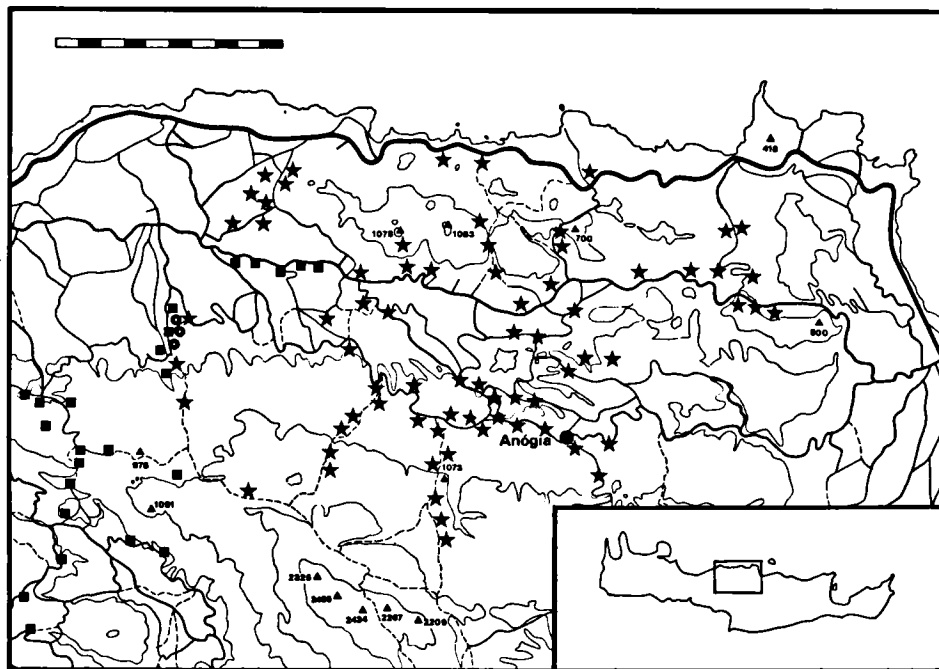


Fig. 3. Map of part of Central Crete, showing the known records of *Albinaria spratti* (Pfeiffer, 1846) (stars) with the circles at the western edge of its range showing the localities at which *Albinaria ariadne* spec. nov. was found. The squares indicate localities at which *A. cretensis strigata* (Pfeiffer, 1849) was found. Scale bar: 10 km.

Material (all samples from Crete, Nomos Rethimnis, leg. M. Schilthuizen c.s.). — Holotype (NNM 56525): 0.2 km along the road from Orthes to Andiskari (3.6 km S. of Perama), 280 m alt., on rocks along the road, 7-v-1990, UTM KV9012 (loc. K1221). Paratypes: locus typicus (HNC 26069/3; NNM 56526/19, A9309/2); 0.5 km along the road from Orthes to Andiskari (3.7 km S. of Perama), 280 m alt., on rocks along the road, 7-v-1990, UTM KV9012 (loc. K1213) (NNM 56527/3). One additional specimen was found at 1.0 km along the road from Pigouniana to Kinigiana (4.8 km S. of Perama), 280 m alt., on rocks along the road, 7-v-1990, UTM KV8911 (loc. 1214); this specimen is not considered a paratype.

Distribution. — The new species was found in three adjacent localities at the western edge of the known range of *A. spratti* (Pfeiffer, 1846) (fig. 3). It lives syntopically with a form of *A. cretensis* (Rossmässler, 1836), tentatively identified as *A. c. strigata* (Pfeiffer, 1849), that reaches the eastern edge of its range here. In one locality (K1221), a single juvenile *A. spratti* was also found.

It is not certain whether the range of *A. ariadne* is really this limited, as the area immediately north-west of these localities has not been studied in detail yet.

Remarks. — The shape of the cervical ribs, the presence of growth-lines and the absence of a distinct dorsal keel all comply with the definition of the *teres*-group by Nordsieck (1977). Within this group, *A. ariadne* seems to have its closest relative in *A.*

*spratti*, with which it shares the general shape of the shell and the shape of the cervical ribs. It can be immediately recognized, however, by a number of distinct characters, viz. the deep basal furrow (absent in *A. spratti*), the prominent basal keel (obsolete in *A. spratti*) and the well-developed subcolumellaris, that is clearly visible in oblique view (hardly visible or invisible in *A. spratti*).

The area in which *A. ariadne* was found, wedged-in as it is between the ranges of *A. spratti* and *A. c. strigata*, could, in theory, be taken as an indication that it might be a hybrid between these two taxa. A number of facts, however, do not agree with this conception. Firstly, *A. ariadne* shows several unique characters in shell morphology, that are found in neither *A. spratti* nor *A. c. strigata*. Usually in Clausiliidae, hybrids show features that are intermediate between both parent-species (see for examples Holyoak, 1986; Schultes & Wiese, 1990). Secondly, only one specimen of *A. spratti* was found syntopically with *A. ariadne*.

Derivatio nominis. — The new species is dedicated to the daughter of the mythological King Minos of Crete, Ariadne, who helped her lover find his way back out of the Labyrinth of Knossos by giving him a woollen thread to unwind.

#### REFERENCES

- HOLYOAK, D.T., 1986. Biological species-limits and systematics of the Clausiliidae (Gastropoda) of the Maltese islands. — J. Conch. Lond. 32: 211-220.
- NORDSIECK, H., 1977. Zur Anatomie und Systematik der Clausilien, XVII. Taxonomische Revision des Genus *Albinaria* Vest. — Arch. Molluskenk. 107: 285-307.
- SCHILTHUIZEN, M., & E. GITTENBERGER, 1990. Zur Formenbildung und Verbreitung der *Albinaria*-Arten von Kreta; neue Taxa der 'Gruppe der candida' (Gastropoda Pulmonata: Clausiliidae). — Basteria 54: 131-142.
- SCHULTES, W., & V. WIESE, 1990. Die Gattung *Albinaria* auf Kreta: IV. Zur Verbreitung der Landschnecken auf Dfa. — Schr. Malakozool. 3: 23-47.