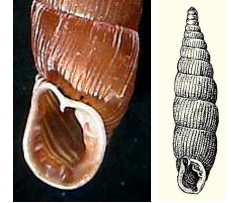


Information about the Environment and for travellers in Crete:

About the door snail - fauna of Crete “Group of candida” (Gastropoda Pulmonata: Clausiliidae)



The door snails belong, based on the science of molluscan (malacology), to the family of the Clausiliidae; it contains those land snails, which carry to a large extent left twisted housing (most kinds of land snail carry a right twisted housing). Malacology is derived from the Greek “malakos” (= softly) and means “theory of the soft animals” (molluscs).

Like most land snails also the door snails are hermaphrodites. Beside many conventionally oviparous kinds, there also some ovoviviparous kinds, by which the oviposition is retarded, so that the descendants already slip in the body of the dam and come to the world as young snail. Despite the high number of turns the housings of door snails become rarely more than 20 mm high. Due to their spindle-shaped housing they find foothold and refuge even in the smallest columns. Beside form and sculpture of the housing also the “mouth” can be formed differently. The “mouth” is inside not smooth, but apparently full with “denticle”. Here it is a matter of lamellas, which continue to run inside the last turn. The lamellas are a component of a unique closing system within the snails, which registered the unusual name “closing mouth snails” to this special group of snails. The meaning of this closing system in the evolution of this group of snails is at present not clearly clarified. Although the family Clausiliidae is Palaearctic common, the emphasis of their spreading lies on the Balkan Peninsula, particularly in Greece and on Crete. For detailed information about the family of door snails see literature ¹⁾ and www.clausilia.de.



In a work of M. SCHILTHUIZEN & E. GITTENBERGER (from the year 1990; see literature ¹⁾) there are 7 kinds of genus *Albinaria* described for Crete. However in total there might be 9 domestic species on Crete. Besides the by SCHULTES & WIESE (see **fig.** and www.weichtiere.at) described species *Albinaria janicollis* (from the north-west of Crete) and *Albinaria cretensis rodakinensis* (from the south of Crete) the following described species can be found at Crete (within small-scale habitats). Hardly more greater than 2 cm, they are easy to oversight; nevertheless they are a noteworthy “miracle of nature”, which requires our protection, in particular that of their habitat.

The top picture shows the door snail *Albinaria janicollis*; below *Albinaria cretensis rodakinensis* (which is endemic on Crete).

Albinaria hippolyti hieronymi - has a continuous fine ribbed housing of 15 to 21 mm height and 3.2 to 4.2 mm broad. The basic colour is horn-brown, often with a thin, white, sometimes spotted layer; their occurrence was proven to the west of Iraklion in the northeast part of the Psiloritis Mountains.

Albinaria hippolyti francisci - has a rather strong ribbed housing of 17 to 20 mm height and 3.3 to 4.3 mm broad. The ribs are white, the gaps usually brownish; their occurrence was likewise described for the northeast of the Psiloritis Mountains (from 250 to 850 m height)

Albinaria hippolyti neuteboomi - has on fine radial lines reduced sculpture of the housing from 17 to 22 mm height and 3.6 to 4.5 mm broad. The basic colour is brown or reddish, in addition a white, often spotted arranged layer; their occurrence was observed in the higher layers (900-1500 m) of the Psiloritis massif.

Albinaria ulrikae - has a slim, spindle formed housing of 19 to 24 mm height and 4.2 to 5.1 mm broad. A white layer is missing, so that the whole housing has a brownish basic colour; their occurrence lies near the coast (30 to 350 m)

Albinaria violacea – is very similar in the characteristics of the kind *Albinaria ulrikae*; their occurrence was occupied in the hill country (200 - 450 m) at the north coast

Albinaria violacea violacea – has a rather finely ribbed, with wavy rings provided housing of 17 to 20 mm height and 4.3 to 4.9 mm broad. The colouring is darkly magenta brown; its occurrence was determined at the north coast (at Fodele).

Albinaria violacea dextrogyra – differs from the nominotypical only very little; their occurrence is located likewise at the north coast.

The door snails inhabit only suitable cliffs, which lie during the midday heat in the shade on Crete. The areas between them work as “isolating areas” between the there living snail populations, so that a great number of subspecies and new kinds can form. Since their circulation areas are usually very small-scale, they are particularly susceptible to human interferences (road construction, environmental pollution), which bring usually a destruction of their habitat. The biotope protection attains thereby a life-supporting meaning for the door snail fauna of Crete



The photos show different biotope ranges of door snails at Crete; they are to be found local of coastal rock (within the breaking range) up to the rock formation in the mountains (up to 1600 m).

Probably several radiations²⁾ in the groups of land snails took place on Crete, which are the result of a geographical allocation of Crete into several Palaeo islands during the late Miocene and the Pliocene. The kind fragmentations following on it led to the fact that the ecological niches of most vicarious kinds hardly differ. To the land snail fauna of Crete see also our info leaflet No. 117-05/E of the Crete environmental info.

²⁾ The radiation is an evolutionary process, which is advanced by mutation and natural selection. It designates the emergence of new, specialized kinds from a less specialized, already existing kind within a relatively short period. The condition for a radiation is, apart from the presence of vacant ecological niches, a geographical isolation, like it for example applies to the island Crete.

Literature¹⁾: [German language only]

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.

Nordsieck, H. (1977): Zur Anatomie und Systematik der Clausilien, XVII. Taxonomische Revision des Genus *Albinaria* Vest. – *Arch. Molluskenk.* **107**: 285-307.

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