

**Pyrenaearia daanidentata spec. nov. (Helicidae),
a toothed species from the Cantabrian mountains, Spain**

J.G.M. RAVEN

2a Gilpin Avenue, East Sheen, London SW14 8QY, United Kingdom

Pyrenaearia daanidentata spec. nov. is described from the Cantabrian mountains, Spain. The species seems to be restricted to a small part of the Picos de Europa.

Key words: Gastropoda, Pulmonata, Helicidae, *Pyrenaearia*, taxonomy, Spain.

In 1982 the author received from the Cantabrian mountains in Spain a sample of *Pyrenaearia* shells with teeth in the aperture. So far no toothed shells were known to occur in the genus. It was intended to publish the new taxon in a revision of all *Pyrenaearia* species in the Cantabrian mountains, but since the preparation of such a general paper takes more time than foreseen, a separate description of the new species is given below.

Abbreviation. — RMNH, Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands.

***Pyrenaearia daanidentata* spec. nov. (fig. 1)**

Diagnosis. — A *Pyrenaearia* species with a smooth, relatively thick shell, provided with two strong teeth in the aperture.

Shell (fig. 1). — Shell depressed, 4.2-4.6 mm high, 8.2-9.0 mm wide, with an umbilicus measuring 1.3-1.5 mm in diameter, which is $\frac{1}{5}$ to $\frac{1}{4}$ of the total shell width. The five whorls are slightly convex. There are very small tubercles on the protoconch, the teleconch has very fine, slightly irregular transverse striae which are formed by narrowly spaced growth-lines. The narrow aperture has a thick inside callus, covering about $\frac{1}{12}$ of the last whorl, with two broad teeth, a basalis and a palatalis, situated above the periphery of the shell. The basalis is elongated parallel to the aperture; the palatalis is directed downward (figs. 1a and 1d). These ridges are visible from the outside; three to five ridges are present in each shell.

The shell is pale grey with irregular, dark brownish-grey spots. The internal callosities may be seen through the sometimes semi-transparent shell as 1-3 mm broad white bands with an orange line at the apertural side. The inside of the aperture is orange-brown.

Animal. — Only empty shells were collected.

Distribution. — The species is only known from the type locality but it might occur in more localities in the high parts (above about 1800 m) of the Macizo Occidental of the Picos de Europa, which have not been well investigated malacologically.

Ecology. — All *Pyrenaearia* species only occur on limestone rock, viz. on rock faces, in fissures, below large blocks and in scree.

Material; — Holotype and paratypes: Hoyo del Burro, 2.5 km S. of Peña Santa de Castilla, Picos del Cornión, Macizo Occidental, Picos de Europa, province of León,

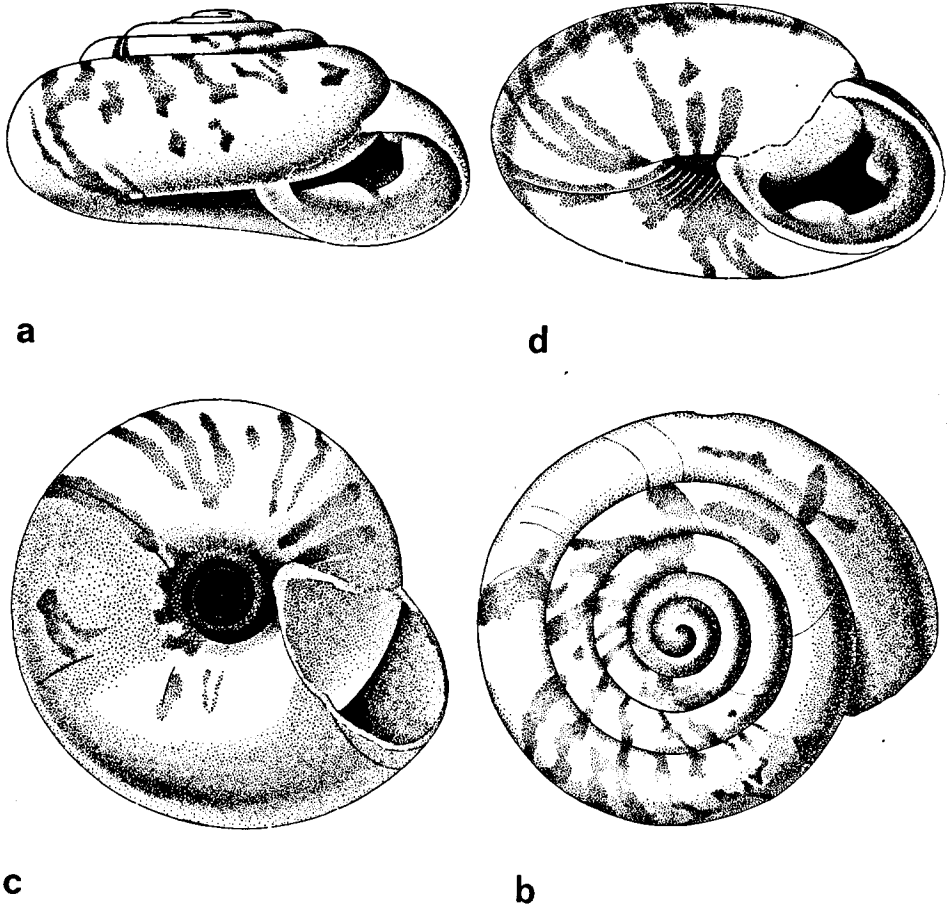


Fig. 1. Holotype (4.6 × 8.8 mm) of *Pyrenaearia daanidentata* spec. nov. (RMNH), Hoyo del Burro, Picos de Europa, Spain, a - side view; b - top view; c - bottom view; d - oblique bottom view, showing the shape of the teeth. F. Driessen del.

Spain, UTM UN4182; 2100 m alt. Holotype, RMNH 56016; 4 paratypes, N. Daan colln.

Derivatio nominis. — The species is called after Prof. Dr. N. Daan who discovered it, and also after its most typical character, the apertural teeth: *daani-dentata*.

Discussion. — The shells differ from those of the closely related *P. oberthueri* (Ancey, 1889) by the presence of apertural teeth, the smaller dimensions, the narrower aperture and the absence of riblets on the whorls. *P. oberthueri* lives in the high parts of the Macizo Central of the Picos de Europa (this area is separated from the Macizo Occidental by the cleft of the Cares river) and in the lower ranges of the Macizo Occidental.

A callus supposedly forms when growth is interrupted, during the late autumn and winter.

In the Picos de Europa *Pyrenaearia* is found up to heights of 2500 m, where the snow cover persists most of the year. There is a gradual change in shell habitus of the different *Pyrenaearia* species with height. At low altitudes the shells are thin, hairy, ribbed and flattened with a wide umbilicus. At high altitudes the shells are thick, have no hairs, and are smooth and relatively high with a smaller umbilicus.

The taxon is considered to be a separate species because the habitus of the shell is quite different from that of the other species. For example, the size and shape of the shell of *P. oberthueri* are variable but in none of the specimens the ratio between number of whorls and diameter (varying from 0.45 to 0.5) is as high as in *P. daanidentata* (about 0.6).

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