

**A note on *Renea (Caziotia) singularis* (Pollonera) and some other members of the Aciculidae (Prosobranchia)**

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*"Caziotia singularis"* was described by Pollonera (1905: 2) after two shells collected by his friend E. Caziot. The shells were found in flood debris on the banks of the Loup, a small river in the Alpes-Maritimes, France. No other records in literature are known to us. Recently six specimens were collected by the second author amongst fallen leaves in a wood near a brook debouching into the Loup, NE of Grasse, 4.3 km from Pont-du-Loup along the road to La Colle-sur-Loup. The specimens, three of which were probably collected alive, agree very well with the original description. The characteristic pore near the suture, behind the peristome, is clearly visible. Fig. 1 shows a specimen deposited in the Rijksmuseum van Natuurlijke Historie, Leiden. The other specimens are in the private collection of Ripken.

Rees (1964) draws attention to the various modifications in shell structure, "notches, grooves, pores and tubes", that enable a terrestrial prosobranch gastropod to obtain fresh air when the operculum is closed. Rees (1964: 65) in his otherwise fascinating paper states that "There is no doubt that the devices have been evolved because of marked seasonal differences between rainy and dry seasons in the tropics...". Some doubt exists here, however, as some species belonging

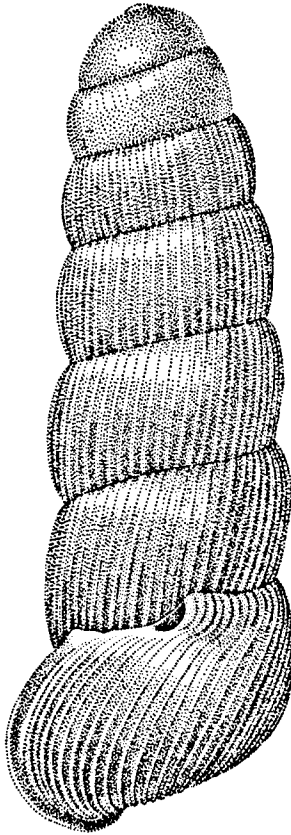


Fig. 1. *Renea (Caziotia) singularis* (Pollonera), NE. of Grasse, Alpes-Maritimes, France, Th.E.J. Ripken leg., actual length 3.4 mm (Museum Leiden).  
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to the Aciculidae, a prosobranch family distributed in Europe and N. Africa, show notches near the suture, comparable to those found in various tropical prosobranchs (see Rees, 1964). As was stated above, *Renea (Caziotia) singularis* even has a characteristic "breathing pore". The possibility of a respiratory function of the pore is already pointed out by Pollonera (1905: 1), who also notices that in the tropical genera *Opisthoporus*, *Spiraculum* and *Rhiostoma* analogous structures are seen. Caziot (1910: 433) simply repeats the remarks of Pollonera

(1905: 1). As regards the origin and function of "breathing devices" in terrestrial prosobranchs it should be kept in mind that more terrestrial prosobranchs are found in the tropics than in temperate regions of the world. Many of these have no "breathing device" at all. Furthermore we do not know during what climatical conditions in the past these devices were developed and how effective they were and are.

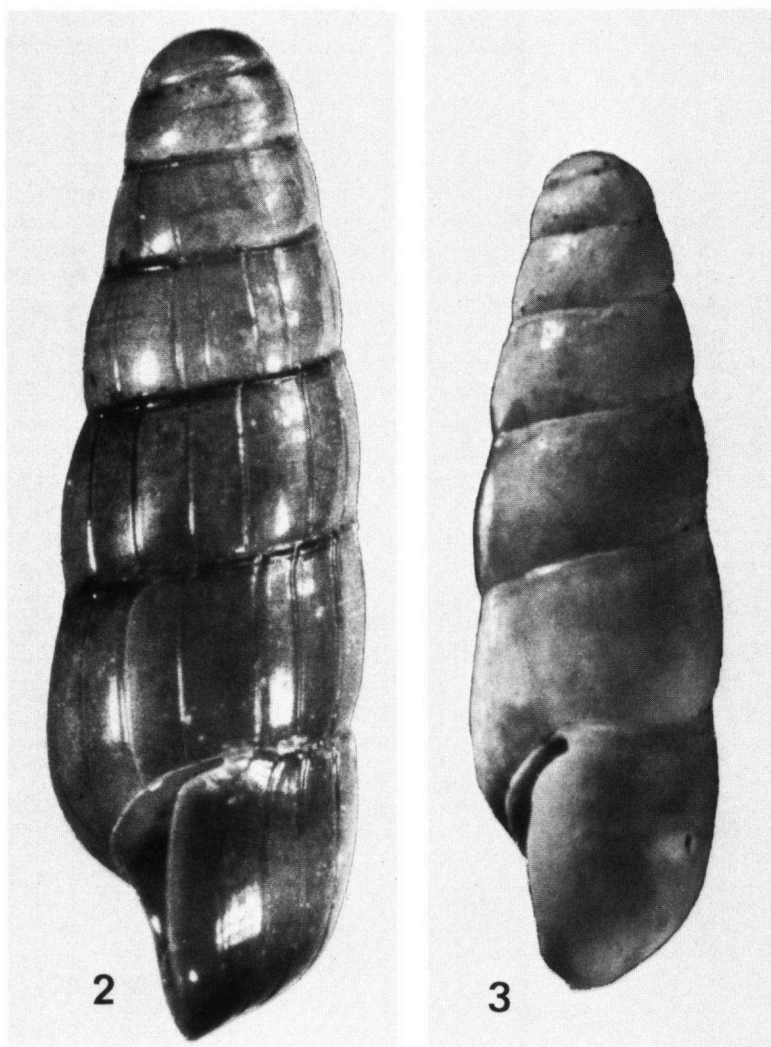
The presence of a more or less pronounced notch near the suture is seen in species belonging to various genera or subgenera of the *Aciculidae*. A slight notch is present in *Acicula (Platyla) wilhelmi* (Wagner, 1910) (fig. 3) and *Acicula (Acicula) beneckeii* (Andreae, 1883) (fig. 2). In other species of *Platyla* or *Acicula* s.s., as for example *A. (P.) polita* (Hartmann, 1840), *A. (A.) lineata* (Draparnaud, 1801) and *A. (A.) sublineata* (Andreae, 1883) notches are absent.

Following the systematical viewpoint of Germain (1931: 591) *Caziotia* Pollonera, 1905, is considered to be a subgenus of *Renea* Nevill, 1880, next to *Renea* s.s. and *Pleuracme* Kobelt, 1894. However, Germain's nomenclature is incorrect, as he uses *Pleuracme* instead of the older *Renea* as the name of the genus. We do not agree with Wenz (1939: 641-642), who considers *Caziotia* a separate genus, because the "breathing pore" seems to be the only clear distinguishing character of the taxon. In *Pleuracme*, e.g. *R. (P.) veneta* (Pirona, 1865), *R. (P.) spectabilis* (Rossmässler, 1839) and *R. (P.) kobelti* (Wagner, 1910) the peristome is more or less recurved near the suture, without forming a clear notch. *Renea* s.s., on the contrary, is characterized by a deep notch. For figures of *R. (R.) bourguignati* Nevill, 1880 and *R. (R.) moutoni* (Dupuy, 1849) the student is referred to Germain (1931: 592).

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Figs. 2-3. Species of *Acicula*. 1. *A. (A.) beneckeii* (Andreae), Bracca, Costa di Serina, Bergamo, Italy, E. Gittenberger leg., actual length 3.8 mm; this species is sympatric with *A. (A.) lineata* (Draparnaud) and *A. (A.) sublineata* (Andreae). 3. *A. (Platyla) wilhelmi* (Wagner), Ljuta, N. of Kotor, Crna Gora, Jugoslavia, E. Gittenberger leg., actual length 3.4 mm (both shells in museum Leiden).

Photos Ir. A. Verduin.

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#### SAMENVATTING

In 1974 verzamelde Th.E.J. Ripken zes exemplaren van *Renea (Caziotia) singularis* in de buurt van de type-localiteit. Deze soort werd in 1905 door Pollonera beschreven aan de hand van twee huisjes, afkomstig uit aanspoelsel van de Loup, een riviertje in de Alpes-Maritimes, Frankrijk. Verdere vondsten werden niet gemeld.

*R. (C.) singularis* (fig. 1) bezit een merkwaardige ronde opening in het huisje, kort achter de mondrand bij de sutuur. Door dit "ademgat" staat de slak in verbinding met de buitenlucht, ook als het dier zich in het huisje heeft teruggetrokken en de mondopening met het operculum is afgesloten. Bij andere vertegenwoordigers van de Aciculidae (fig. 2-3) komt hoogstens een min of meer duidelijke inbocht van de mondrand nabij de sutuur voor. Bij tropische landbewonende Prosobranchia zijn vergelijkbare structuren beschreven (Rees, 1964).