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Medora macarscaensis brancsiki subsp. n., a new endemic clausiliid from the Velebit mountains, Croatia (Gastropoda: Stylommatophora: Clausiliidae)

With 2 maps and 2 figures

ZOLTÁN FEHÉR

Abstract. *Medora macarscaensis brancsiki* subsp. n. is described from the Mala Paklenica canyon, Velebit Mts., Croatia. Another population of this form has been found in the Velika Paklenica canyon. This taxon shows the highest conchological similarity to *Medora macarscaensis clissana* (BRANCSIK 1897), from which it can be distinguished on the basis of the neck sculpture and features of the clausiliar apparatus. The systematic and zoogeographical position of the new taxon in relation to other *Medora* forms is discussed.

Kurzfassung. ***Medora macarscaensis brancsiki* subsp. n., eine neue endemische Clausiliide aus dem Velebit-Gebirge, Kroatien (Gastropoda: Stylommatophora: Clausiliidae).** – *Medora macarscaensis brancsiki* subsp. n. wird aus der Mala Paklenica-Schlucht, Velebit-Gebirge, Kroatien beschrieben. Eine andere Population dieser Form wurde in der Velika Paklenica-Schlucht gefunden. Dieses Taxon ist conchyologisch der Unterart *Medora macarscaensis clissana* (BRANCSIK 1897) sehr ähnlich, von welcher es sich durch die Nackenskulptur und durch Merkmale des Clausiliarapparates trennen läßt. Die systematische und zoogeographische Position des neuen Taxons in Relation zu anderen Formen von *Medora* wird diskutiert.

Key words. Balkans, Croatia, Velebit Mts., Clausiliidae, *Medora macarscaensis*, new subspecies.

Introduction

Medora H.&A. ADAMS 1855, is a characteristic genus of the Balkans. With the exception of one species, it is distributed along the west coast of the peninsula from Istria and southern Krain to central Albania. Due to its obligate rock-dwelling character and sporadic distribution, this genus is characterized by extensive allopatric speciation, thus it is rich in local forms. At present 45 forms are recognized, current system and nomenclature of the genus is based on NORDSIECK's works (1970, 1974, 1993, 1995).

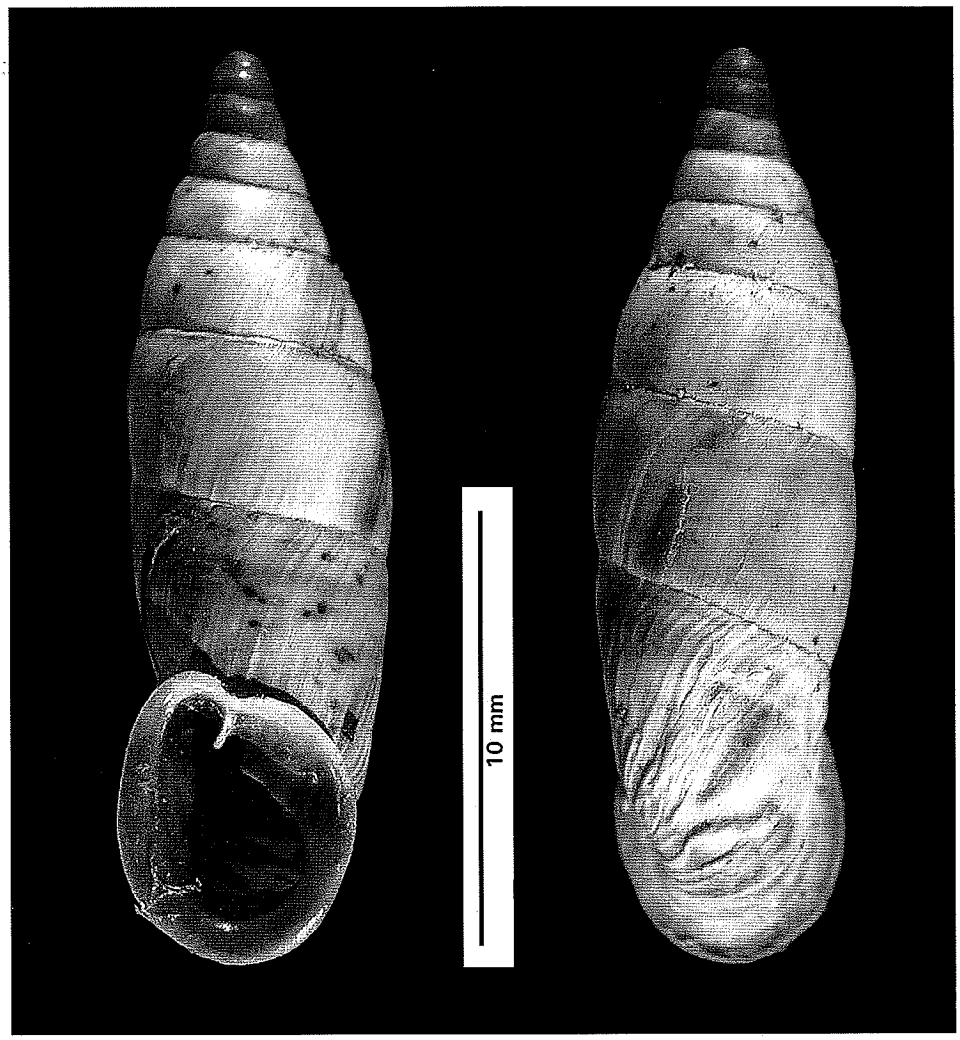
The number of described subspecies is relatively high compared to the number of known localities, and some of these forms have just been found in one site until now.

In June, 1997 an isolated form of the *Medora macarscaensis* (SOWERBY 1828) was discovered in the Paklenica National Park (Velebit Mts., Croatia), which shows features distinguishing it from all the known representatives of the species.

Medora macarscaensis brancsiki subsp. n. (Figs. 1a-b)

Type locality: Croatia, Velebit Mts., Mala Paklenica canyon near Starigrad.

Author's address:
Dr. Zoltán Fehér, Hungarian Natural History Museum, H-1088 Budapest, Baross u. 13.
E-mail: feher@zoo.zoo.nhmus.hu



Figs. 1a-b: *Medora macarscaensis brancsiki* subsp. n. (holotype NHMB 76741).

Material: Mala Paklenica canyon near Starigrad, June 27, 1997 leg.: Z. FEHÉR & L. TAMÁS. Holotype: Natural History Museum, Budapest (NHMB) 76741; paratypes: NHMB 76742/72, Staatliches Museum für Tierkunde, Dresden 42084/2; Naturhistorisches Museum, Wien NHMW 100784/2; Haus der Natur, Cismar 55801/2; Senckenberg-Museum, Frankfurt am Main 320965/2; and further 175 specimens in the collection of Z. ERÖSS, Budapest.
Further paratypes: Manita pečina in the Paklenica canyon near Starigrad, June 26, 1997 leg.: Z. FEHÉR & L. TAMÁS NHMB 76743/2; Starigrad, Paklenica National Park, July 30, 1987 leg.: É. KISS & L. PINTÉR NHMB 76744/2.

Diagnosis: Lamella spiralis is not furcate, false plica palatalis superior is missing. In contrast to *M. m. clissana* (BRANCSIK 1897), the lamella superior does not overlap the lamella spiralis, the neck region is more regularily costate, the lamella subcollumellaris is usually invisible in a perpendicular view at the aperture.

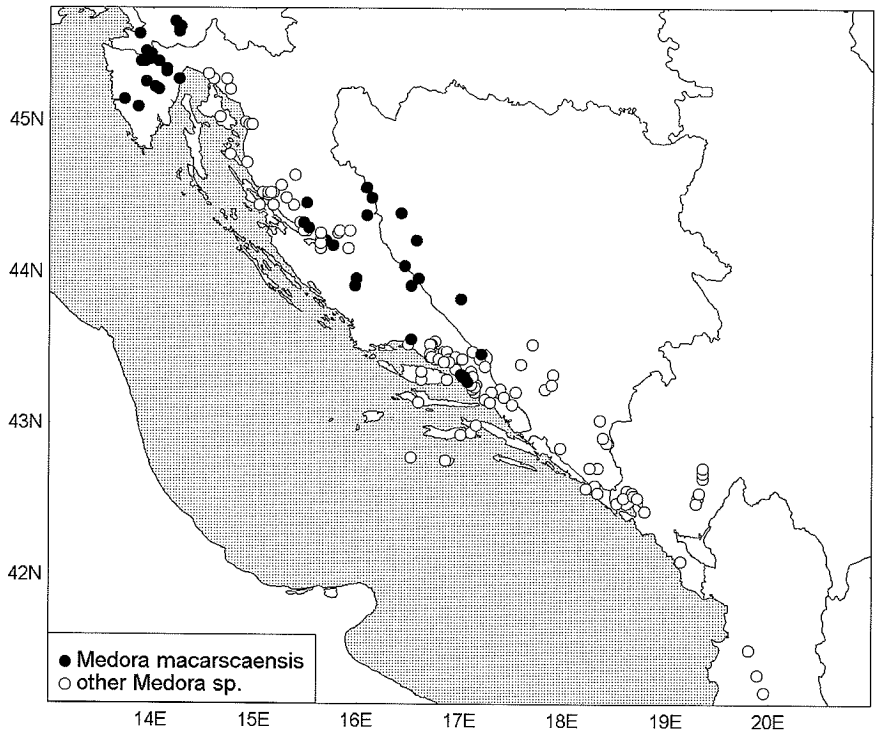


Fig. 2: Geographical distribution of *Medora macarscaensis* within the range of the genus.

Description: The shell is sinistral, tumid-fusiform, consists of $8\,^1/_4$ – 9 whorls, its white, bluish-white colour is characteristic of the genus. The embryonal whorls are brown, usually semi-transparent, the first $1\,^1/_2$ – 2 whorls appear black in live specimens. Except for the last whorl, the shell surface is almost smooth. On the the lower part of the penultimate whorl, above the aperture, relatively fine ribs begin to develop. Towards the aperture these ribs become longer and more prominent. The dorsal region of the neck is roughly costate with 3 to 7 very thick, blunt, irregularily undulating ribs, but just behind the aperture 2 to 3 straight, relatively fine ribs can be found. The aperture is oval, its upper rim is close to the adjacent whorl, but in most cases remains separated from that. The inner end of the lamella superior does not overlap, in most of the cases does not even reach the outer end of the lamella spiralis. The inner end of the spiral lamella is not furcate. The subcollumellar lamella does not reach the peristome, it is somewhat arched, thus in a perpendicular view at the aperture it is usually not visible. The plica principalis ends at the same depth or slightly deeper than the plica palatalis superior. The lunella is dorsal and less curved than that of *M. m. clissana*, its upper part is continuous with the plica palatalis superior. Except a small suturalis, any other plicae are missing.

Shell dimensions: Height: 19.7–22.0 mm, width: 5.6–6.4 mm; holotype, heigth: 20.5 mm, width: 5.9 mm.

Etymology: This subspecies is dedicated to Károly BRANCSIK (1842–1915), a prominent Hungarian naturalist, physician and museologist, who made a pioneering contribution to the knowledge of the Bosnian and Dalmatian malacofauna.

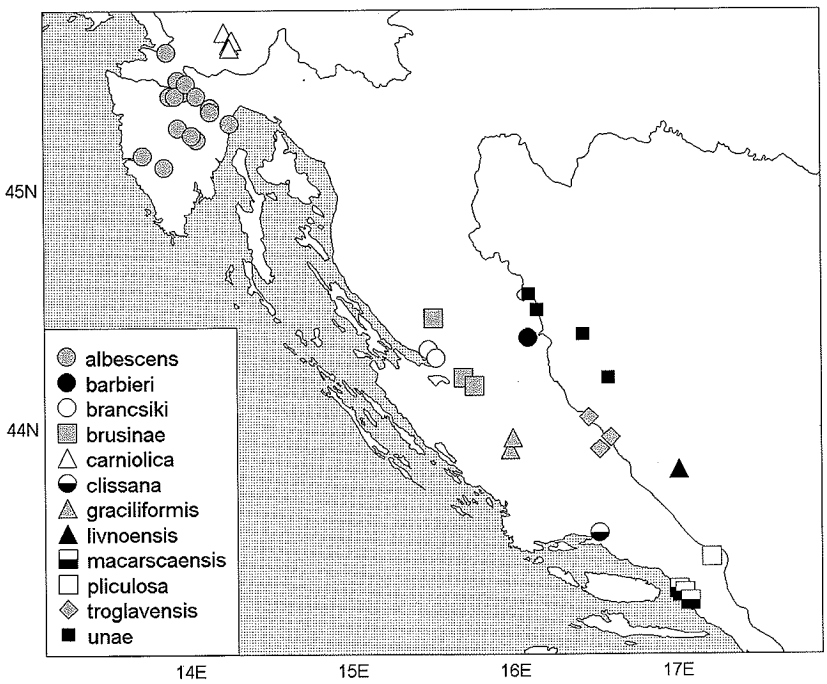


Fig. 3: Distribution of the subspecies of *Medora macarscaensis*.

Discussion:

The various forms of *M. macarscaensis* are distributed in the Istria peninsula and southern Krain, as well as from the southern Velebit to central Dalmatia (Makarska). They can be found, especially in the south, highly sporadically, with most subspecies separated by considerable distances (Figs. 2 and 3).

The distribution area of *M. macarscaensis* overlaps in the southern Velebit with that of *M. agnata* (KÜSTER 1847), and in the coastal area between Split and Makarska with five other *Medora* species (*M. contracta* ROSSMÄSSLER 1842, *M. almissana* KÜSTER 1847, *M. eris* L. PFEIFFER 1866, *M. armata* KÜSTER 1847 and *M. dalmatina* ROSSMÄSSLER 1835). Despite the shared distribution areas, the only mentioned case for syntopy is the co-occurrence of *M. m. brusinae* (BRUSINA 1866) and *M. agnata* at "Zrmanjatal bei Obrovac" (NORDSIECK 1970). According to my personal observation, while *agnata* and *brusinae* lived close together at Obrovac, they could not be find on the same rocks. It is important to note, that two *Medora* species of the Mala Paklenica also lived separately; *Medora agnata cognata* (O. BOETTGER 1877) was found at the entrance of the canyon in an exposed, sunny hillside among and under smaller rocks. Empty shells of *M. m. brancsiki* subsp. n. were also collected at the Velika Paklenica canyon, near the Manita pecina, where they were found separated from *M. a. cognata* which inhabited another part of the valley.
Live specimens of *M. m. brancsiki* subsp. n. were only found at a shaded area of the Mala Paklenica canyon, around a cave, on a steep and bare limestone rock. The specimens were collected together with other rock-inhabitating species like: *Cochlostoma elegans* (CLESSIN 1879), *Cochlostoma sturanii* (?) (A.J. WAGNER 1897), and *Rupestrella rhodia* (ROTH 1839).

Although at first sight the new subspecies resembles *M. contracta*, the non-furcate lamella spiralis and the lack of the plica basalis shows, that it apparently belongs to *M. macarscaensis*.

On the basis of its size, shape and sculpture it stands closest to *M. m. clissana* (NORDSIECK 1970, GIUSTI et al. 1986). It differs from the latter by the following features: the lamella superior does not overlap the lamella spiralis, the subcollulmellar lamella is arched to a lesser extent and usually invisible in a perpendicular view at the aperture, ribs are less frequently interrupted, the strongly sculptured region of the neck is shorter, and the lunella is less bent.

Within this species, NORDSIECK (1970) distinguishes the *albescens*-group (including *albescens* MENKE 1830, *barbieri* L. PFEIFFER 1868, *brusinae* BRUSINA 1866, *carniolica* KÜSTER 1860, *macarscaensis* SOWERBY 1828, and *pliculosa* WESTERLUND 1884) which is characterised by a plica palatalis superior reaching beyond the lunella and the development of a false plica palatalis superior and the *graciliformis*-group (including *clissana* BRANCSIK 1897, *graciliformis* L. PFEIFFER 1866, *livnoensis* NORDSIECK 1970, *troglavensis* A.J. WAGNER 1912 and *unae* NORDSIECK 1974) where the plica palatalis superior usually does not reach beyond the lunella, and no false plica palatalis superior is formed. Regarding its shell morphology, the new subspecies can be classified with the latter group and seems to be closest related to *M. m. clissana*, but this is difficult to assess considering the large distance between their occurrences and the possibility of parallel evolution.

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