

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER
CARIBBEAN ISLANDS: No. 206

A NEW GASTROPOD GENUS AND SPECIES FROM BONAIRE,
NETHERLANDS ANTILLES

by

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West Indian molluscs have been studied by the Department of Malacology of the Zoological Museum Amsterdam for many years. Recently new material collected by Brother M. ARNOLDO (A. N. BROEDERS) and Dr. P. WAGENAAR HUMMELINCK became available which was studied by the second author. During 1982 several West Indian islands were visited by the first author, and mollusc samples were taken on the islands Puerto Rico, St. Martin, Aruba, Curaçao and Bonaire. Material was collected in various biotopes, from the littoral zone down to about 50 m. Most of the micro-molluscs were sorted out from coral sand. In a sample, taken at 45 m depth off Bonaire, some interesting species were found. In this article we will describe a new species, belonging to a new genus, from that station.

Mareleptopoma nov. gen.

Type species. *Mareleptopoma karpatisensis* nov. spec.

Description. Shell very small, trochiform, thin, colour uniformly white. Relatively large mammilated protoconch, first whorl smooth, remaining whorls of protoconch with spiral cords. Teleoconch carinated and with strong axial ribs and covered by numerous spiral rows of micro-

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[Nrs 1 and 2 have been published in *Bull. Zool. Museum Amsterdam*, 1984.]

scopic granules. Aperture circular, interior nonnacreous, peristome thickened and crenulated. Non umbilicate, only a small umbilical groove. In shape it reminds of the Asian landsnail genus *Leptopoma* Pfeiffer, 1847, hence the name.

Remarks. The systematic position of this new genus is still problematic, because the soft parts, the radula and operculum of the type species are unknown. The protoconch and shell structure might indicate a relationship to the Rissoacea. However, the shape of the shell and its circular thickened aperture is more trochacean. The only (marine) genus which has some characters in common is *Haplocochlias* Carpenter, 1864. McLEAN (1969) and KEEN (1971) refer this genus to the family Skeneidae in the Archaeogastropoda. However, based on characteristics of the protoconch of the new genus, which suggest a lecitotrophic development, we hesitate to include it in this family. Dr. P. BOUCHET (pers. comm.) suggested an affinity with the genera *Iphitella* Thiele, 1925 and/or *Sansonia* Jousseaume, 1892, which have a more or less similar type of protoconch.

***Mareleptopoma karpatensis* nov. spec.**

(Figs. 47–49)

Description of holotype. Shell very small, about as broad as high, spire stepped, thin, semitransparent; umbilical groove present; uniformly white. – Protoconch consists of $2\frac{1}{2}$ convex whorls, its initial part smooth (embryonic shell), 7–8 irregular spiral lirae growing gradually towards the clearly demarcated end of the protoconch (Fig. 48). – Teleoconch consists of 3 convex whorls. Primary sculpture of axial riblets (20–21 on the body whorl and 17 on the penultimate whorl) and 4 spiral carinae, 2 prominent ones on the periphery and 2 smaller ones on the base. The axial riblets do not cross the second topmost carina. Secondary sculpture consists of numerous fine, regularly spaced spiral threads. These threads appear to be rows of very small granules. The umbilical chink is very narrow (Fig. 49). Aperture round, peristome continuous, thickened and finely crenulated. The outerlip is curved as seen from aside.

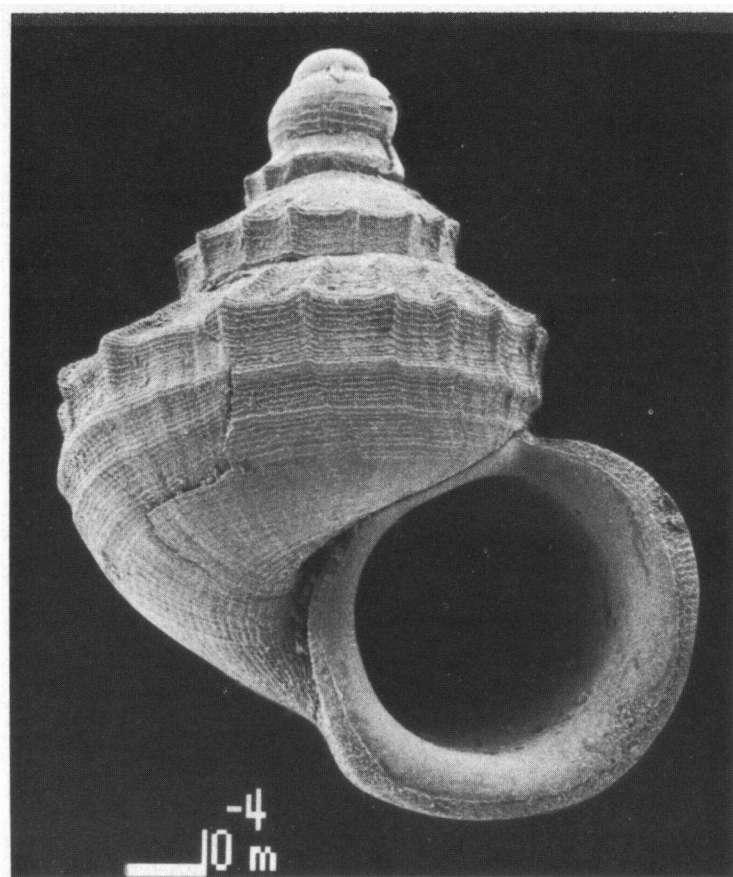


Fig. 47. *Mareleptopoma karpatisis* n. sp. – BONAIRE: off Karpata. Holotype. – Apertural view.

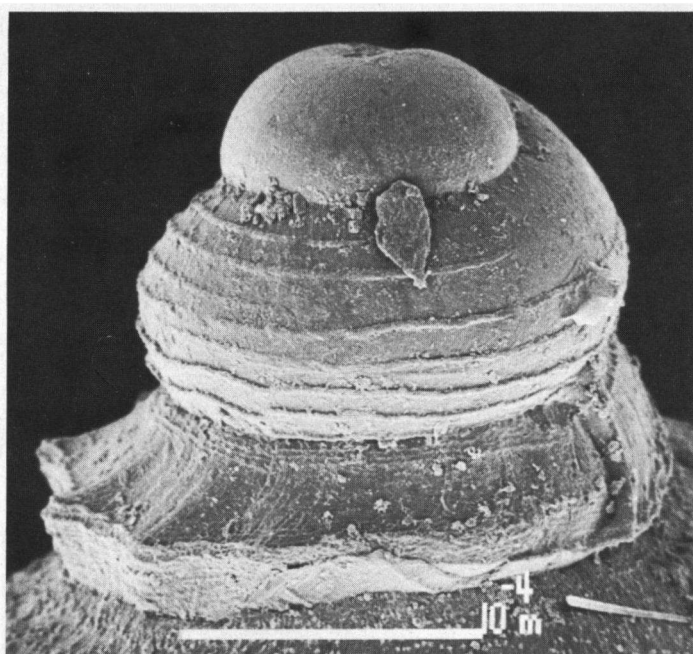


Fig. 48. *Mareleptopoma karpatis* n. sp. – Holotype – Protoconch.

Type locality. Caribbean Sea, Netherlands Antilles, BONAIRE, on reef just off Karpata Biological Station, 68° 21' W, 12° 13' N, 45 m, in coral sand. Date 29.VI.1982, leg. R. G. Moolenbeek & W. van der Hijden.

Material studied.

	length	width	Remarks
Holotype	0.98 mm	0.88 mm	ZMA Moll. no. 3.84.006
Paratype 1	1.2 mm	1.0 mm	ZMA Moll. no. 3.84.007
Paratype 2	1.1 mm	0.8 mm	ZMA Moll. no. 3.84.007, partly broken
Paratype 3	1.0 mm	0.8 mm	ZMA Moll. no. 3.84.007, subadult shell
Paratype 4	1.05 mm	0.9 mm	Museum natl. d'Histoire Naturelle, Paris
Paratype 5	1.05 mm	0.85 mm	ZMA Moll. no. 3.84.007

All paratypes are similar to the holotype, except size and development of the aperture. In subadult shells (paratype 3) the peristome is somewhat expanded to the base, and paratype 1 has 4 postnuclear whorls and 4-5 spiral carinae on the base.

Remarks. We have not been able to find any close relative of *Mareleptopoma karpatensis*. The only species which shows some conchological similarity is *Haplocochlias swifti* Vanatta, 1913. This species lives sympatric with the new species but is much larger (3–4 mm) and has a different sculpture of spiral striae with microscopic axial striae in the interstices. Also its protoconch indicates a direct larval development.

Etymology. Named after the biological station “Karpata” of the Netherlands Antilles National Parks Foundation (STINAPA), supervisor of the marine park Bonaire.

Acknowledgements. The first author thanks his wife WILMA VAN DER HIJDEN for financing this collecting trip, for being his buddy while Scuba diving and for collecting material. Facilities and hospitality were extended by STINAPA, especially Drs. ERIC NEWTON, manager of the Biological Station “Karpata”. With Dr. PHILIPPE BOUCHET MNHN, Paris, we had discussions about this species. Dr. H. E. COOMANS stimulated our

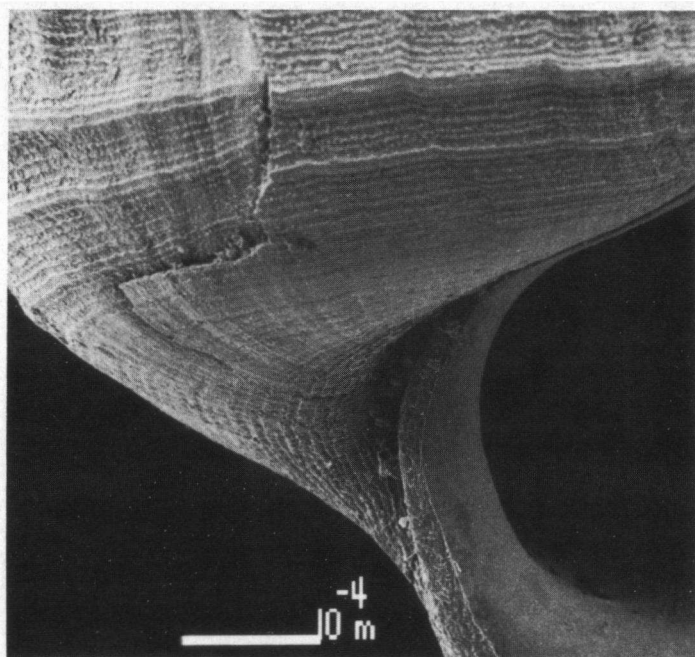


Fig. 49. *Mareleptopoma karpatensis* n. sp. – Holotype – Umbilical groove and microsculpture.

research on West Indian molluscs, gave valuable advice and critically read the manuscript. SEM photographs were made by us at the Laboratorium voor Elektronenmikroskopie, University of Amsterdam, and J. ZAAGMAN and L. VAN DER LAAN (ZMA) gave technical assistance.

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