

***Hoenselaaria*, a new genus with the description of a new species
(Gastropoda: Eulimidae) from the Indo-Pacific¹**

R. G. MOOLENBEEK

Zoölogisch Museum Amsterdam (ZMA), PO Box 94766, 1090 GT Amsterdam, The Netherlands
(r.g.moolenbeek@uva.nl)

ABSTRACT

The type species of the genus *Microstilifer*, *Stilifer auricula* Hedley, 1907 is a rather common, but minute, Indo-Pacific micromollusc that needs a new generic and specific name due to misinterpretation of its identity. The genus *Hoenselaaria* new genus is introduced with its type species *Hoenselaaria wareni* new species. This species occurs nearly all over the tropical Indo-Pacific but it has been overlooked until now probably due to its extremely small size.

Key words: *Hoenselaaria* new genus, new species, *Stilifer*, *Microstilifer*, Indo-Pacific, Vanikoridae, Eulimidae

INTRODUCTION

Fundamental research concerning the family Eulimidae has been done mainly by Dr Anders Warén during the last decades, and he published a generic revision in 1984. Already in 1980 he created the new genus *Microstilifer* for a species described as *Stilifer auricula* Hedley, 1907. Recent collecting activities by the author and sediments handed to me by colleagues and friends revealed a minute shell, initially attributed to this new genus *Microstilifer*. Lozouet (1998: 94, figs 16a-d) contributed another species (a Miocene fossil) to the genus *Microstilifer*. Unfortunately he misspelled the name *auricula* as *auriculata* in this article. Undoubtedly this taxon is closely related to our recent species, which occurs in samples from the Indo-Pacific.

The type species of *Microstilifer*, being *Stilifer auricula* Hedley, 1907, was based on three specimens from a depth between 17 to 20 fathoms from Mast Head reef (Australia, Queensland). These syntypes were deposited in the Australian Museum Sydney (AMS) but they were lost due to Byne's disease (Warén, 1980: 58).

Hedley's figure of a syntype (Fig. 1) showed significant differences with specimens from our samples and doubt arose about the correct identification of our specimens. Unfortunately, Warén (1980: figs 60-61) only added a few line drawings of a specimen collected in Madagascar. Finding a specimen (Fig. 2), nearly identical to Hedley's syntype figure, provided compelling evidence that our specimens belong to a new genus, which will be described below. I hesitate to include it in the family Eulimidae but, without being able to

study live specimens, this classification seems the best solution for the moment. Based on the shape of the peculiar protoconch, a relation with the Cerithioidea might be an alternative, an option also suggested by Lozouet (1998). Also placement in the Rissooidea or the Vanikoroidea is a plausible alternative when considering the zigzag pattern on prodissoconch II.

I even hesitate more to consider *Microstilifer auricula* (Hedley, 1907) as an eulimid. The shape, the gloss, the protoconch, and the umbilical area all point in the direction of a species belonging to the Vanikoridae, although the figure of *Ophielima minima* Dall, 1927 (Bouchet & Warén, 1986: fig. 832-833) with sculpture on the teleoconch suggests that placement in Eulimidae cannot be excluded.

All material mentioned is in ZMA, unless otherwise stated.

ABBREVIATIONS

AMS = Australian Museum Sydney
pc = protoconch
RM = Robert G. Moolenbeek
ZMA = Zoölogisch Museum Amsterdam

SYSTEMATICS

Family: Vanikoridae [?]

Microstilifer Warén, 1980

Type species by original designation: *Stilifer auricula* Hedley, 1907.

Microstilifer auricula (Hedley, 1907)

Figs 1-2

Type material.-

According to Warén (1980) the types in AMS are lost. It was described and figured by Hedley (1907: 505-506, pl. 18 fig. 36) (Fig. 1). The dimensions were height 2.15 mm, width 1.65 mm.

Type locality.-

'Mast Head reef, Capricorn Group, 17-20 fathoms' (Australia, Queensland).

Material studied.-

Two specimens from Indonesia, Kalimantan, Berau Islands, Buliulin, scuba 10-25 m (stat. ber03/26), leg. RM (Netherlands Berau Expedition), height 2.3 mm and 1.7 mm, width 1.6 and 1.2 mm.

Remarks.-

The size of Hedley's figured specimen is far too large for the taxon Warén had in mind (see description below). The species classified by Warén is always less than 1.5 mm. The shapes of both taxa are also different once you have studied them.

I identify the shell of the Berau specimens as *Microstilifer auricula* because it agrees in detail with the figure of Hedley (1907: fig. 36). I doubt whether it belongs to the family Eulimidae. As stated in the introduction the shell has more in common with shells belonging to the family Vanikoridae. However, a final classification needs more study because my identification is only based on the two shells without animal.

Family: Eulimidae [?]

Hoenselaaria new genus

Diagnosis.-

Small, globular shell with slender, elongated stiliform larval whorls. Aperture complete and circular, umbilicus rather deep. Teleoconch whorls stepped.

Derivatio nominis.-

Named to honour Jos and Henk Hoenselaar, honorary associates of the Zoölogisch Museum Amsterdam. I studied the marine molluscan fauna from the Mediterranean and the Macaronesian islands together with Henk Hoenselaar. Over the years, Jos Hoenselaar spent many days, weeks, and months sorting out my sediment samples. Up to now, she must have picked out more than one million microshells, among them many specimens of the new genus and species. They kindly donated their entire mollusc collection to the ZMA.

Type species.-

Hoenselaaria wareni new species.

Remarks.-

It is very difficult to relate this new genus to any other genus. *Microstilifer* differs by being (relatively) much larger, having more whorls and lacking the globular body whorl. Also the shape of the aperture of the latter is more elongated and flaring. *Hoenselaaria* has a very peculiar protoconch with a crater-like structure on its initial part, gradually growing towards a smooth surface. This shape of the protoconch resembles that of the genus *Vermicularia* (see Redfern, 2001: fig. 93b). To my knowledge this kind of protoconch is yet unknown in eulimids.

Hoenselaaria wareni new species

Figs 3-6

Type material.-

The holotype (ZMA Moll. 4.09.016) and 9 paratypes (ZMA Moll. 4.09.017) from the type locality.

All other paratypes from INDONESIA; Jawa, Jakarta Bay: Kotok Besar, 18 m, leg. B. Dharma/1 (ZMA Moll. 4.09.018); Kelapa, leg. RM/1 (ZMA Moll. 4.09.019); Belanda, leg. RM/2 (ZMA Moll. 4.09.020); Panjang, leg. RM/2 (ZMA Moll. 4.09.021); Hantu Besar, leg. RM/2 (ZMA Moll. 4.09.022); Jukung, leg. RM/1 (ZMA Moll. 4.09.023); Semak Daun, leg. RM/2 (ZMA Moll. 4.09.024); Air, leg. RM/2 (ZMA Moll. 4.09.025); Tidung Besar, leg. RM/1 (ZMA Moll. 4.09.026); Panjang, leg. RM/1 (ZMA Moll. 4.09.027); Payung Besar E, leg. RM/2 (ZMA Moll. 4.09.027).

Other material studied.-

INDONESIA; Kalimantan, Berau Islands: Derawan island, jetty, leg. RM/1; Derawan island S, leg. RM/3; Derawan island seagrass, 1 m, leg. RM/1; Lighthouse-1, leg. RM/1; Maratua, leg. RM/1.

Sulawesi: Spermonde Archipel, Pulau Badi, 28 m, leg. N.J. de Voogd/5. Papua, S. Mansuar, 20 m, leg. S.E.T. van der Meij/1; SE Manuar Nikson, 37 m, leg. S.E.T. van der Meij/1; S Gam, 9 m, leg. S.E.T. van der Meij/1; SE Gam Desa Besir, leg. S.E.T. van der Meij/1; Gam, SE Besir Bay, 17 m, leg. S.E.T. van der Meij/3.

VIETNAM; off Nha Trang, 16 m, leg. Thach/1.

THAILAND; Patong beach, leg. J. de Visser/1.

SEYCHELLES; Alphonse island, 7 m, leg. M. de Kluijver/2.

TANZANIA; Zanzibar, Ras Fumba, leg. & collection H. Dekker/1.

YEMEN; RED SEA al-Durayhimi, beach, leg. & collection H. Dekker/13; al-Urj, beach, leg. & collection H. Dekker/1.

Literature records.-

Northwest MADAGASCAR (Warén, 1980), AUSTRALIA; Queensland (Hedley, 1907); NEW CALEDONIA (Warén, 1980),

Type locality.-

INDONESIA; Java, Jakarta Bay, Tikus, 5°51'13"S, 106°34'43"E, 10-25 m, 18 September 2005, leg. RM.

Derivatio nominis.-

Named after Dr Anders Warén, eminent eulimid specialist of Sweden.

Description of the holotype (ZMA Moll. 4.09.016).-

Shell fragile, very small, height 1.40 mm, width 0.82 mm (Fig. 3). Protoconch of about 2.5 whorls: height 0.23 mm, width 0.20 mm. Initial part with rough, crater-like sculpture gradually becoming more smooth (Fig. 4). I regard this part as pc I with some doubt. On first post nuclear whorl about 12 spiral zigzag ridges, which stop abruptly after nearly one whorl: width of the whorl 0.40 mm, vertical height 0.20 mm. I consider this part pc II. The following teleoconch whorl is smooth and convex and it consists of one whorl. The

umbilicus is rather deep and wide. Aperture entire, nearly circular. Colour white-translucent to glassy.

Variability.-

Apart from the size, ranging from 0.7 to 1.4 mm this new species is rather uniform. The periostracum seems to be very thin, translucent and sometimes with spiral lines on it. The sculpture of the pc II is less pronounced in some paratypes or it continues (less prominent) on the teleoconch in other paratypes (Fig. 5). In specimens I studied from Yemen, the initial crater-like sculpture on the pc I is less prominent (Fig. 6).

Remarks.-

The shape of the new species is similar to the figure of *Stylifer thurstoni* Winckworth, 1936. However, that species is three times larger and has a different non-entire aperture and is a convincing eulimid member. Juvenile embryonic stages of some *Strombus* species also look similar but are always larger and have an aperture with a siphonal canal.

ACKNOWLEDGEMENTS

First of all I express my gratitude to Dr Bert Hoeksema, initiator of the two expeditions to Indonesia (Berau and Seribu), who allowed me to participate in his research program. Part of the Berau samples were kindly sorted by Drs Jan van der Linden and the Pulau Seribu samples by Jos Hoenselaar. Fieldwork for this study was supported in 2003 by WOTRO (NWO-WOTRO grant WT87-299; Berau) and in 2005 by ALW (ALW-NWO grant 852.000.50; Seribu).

The Indonesian Foundation for Research (LIPI) supported the logistics within Indonesia. Sancia van der Meij was so kind to take sediment samples during the Raja Ampat Expedition that was initiated by Naturalis in 2007. Joos de Visser collected beach samples from Western Thailand, Nicole de Voogd from Sulawesi, Dr Thach from Vietnam, Bunjamin Dharma from Jawa and Mario de Kluijver from the Seychelles. Henk Dekker allowed me to study his samples from Yemen and Zanzibar, and prepared figure 2.

Bram van der Bijl, Leon Hoffman and Marien J. Faber critically read the manuscript. Mike Filmer gave useful comments on the English text.

REFERENCES

Bouchet, P. & A. Warén, 1986. Revision of the Northeast Atlantic bathyal and abyssal Aclididae, Eulimidae, Epitoniidae (Mollusca, Gastropoda). *Bollettino Malacologico, Supplemento 2*: 299-576

Hedley, C., 1907. The Mollusca of Mast Head Reef, Capricorn group, Queensland. Part II. *Proceedings of the Linnean Society of New South Wales 32*: 476-513

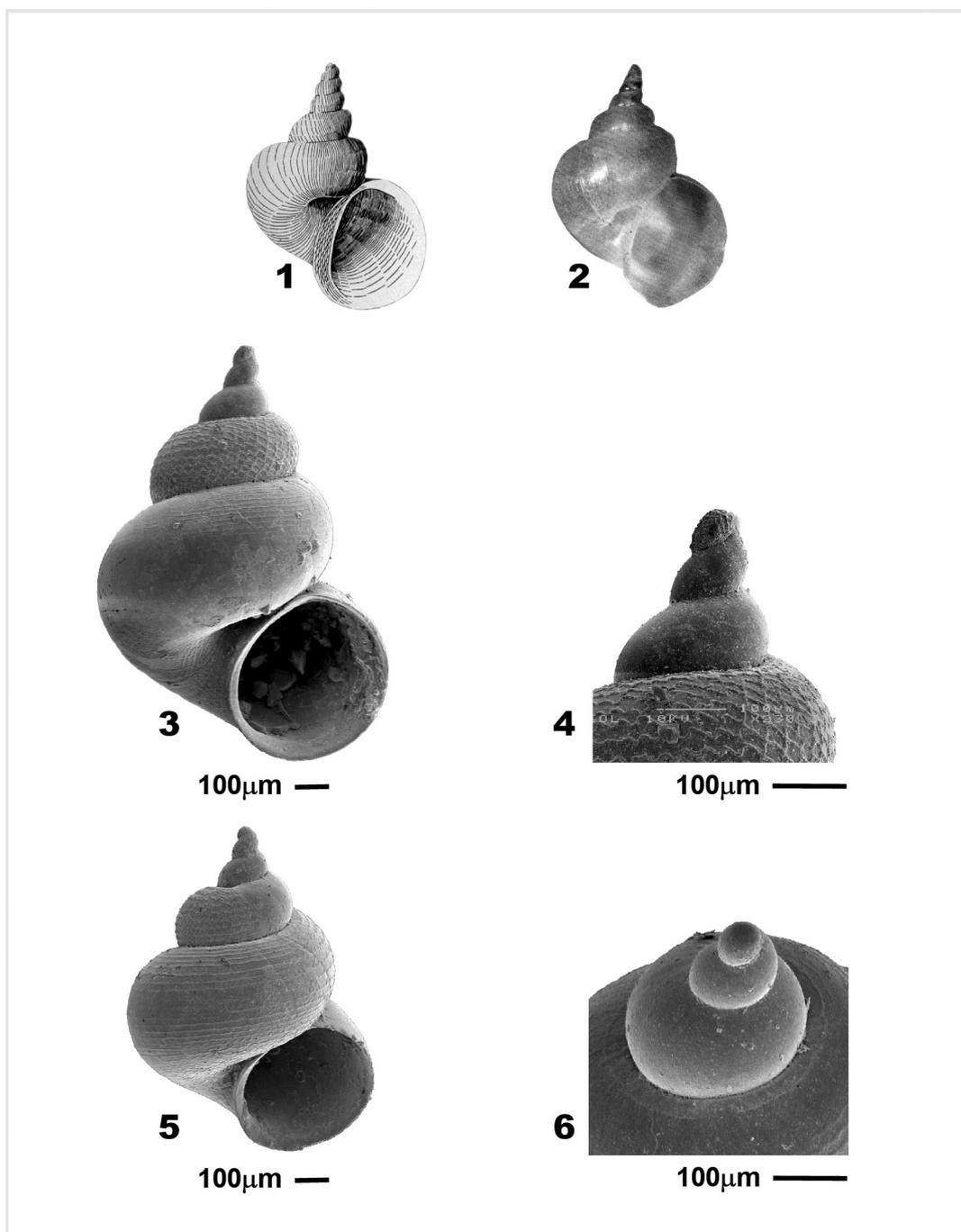
Lozouet, P., 1998. Nouvelles espèces de gastéropodes (Mollusca; Gastropoda) de l'Oligocène et du Miocène inférieur de l'Aquitaine (sud-ouest de la France). *Cosmanniana 5(3-4)*: 61-102

Redfern, C., 2001. *Bahamian seashells. A thousand species from Abaco, Bahamas*. Boca Raton, FL: Bahamianseashells.com. 280 pp.

Warén, A., 1980. Descriptions of new taxa of Eulimidae (Mollusca, Prosobranchia), with notes on some previously described genera. *Zoologica Scripta 9*: 283-306

Warén, A., 1984. A generic revision of the family Eulimidae (Gastropoda, Prosobranchia). *The Journal of Molluscan Studies, supplement 13*: 1-96

Warén A. & P. Bouchet, 1988. A new species of Vanikoridae from the western Mediterranean with remarks on the Northeast Atlantic species of the family. *Bollettino Malacologico 24*: 73-100



Figs 1-6. Eulimidae, (?) Vanikoroidea. **1-2.** *Microstilifer auricula* (Hedley, 1907). **1.** Australia, Queensland, syntype figure (after Hedley, 1907), height 2.15 mm. **2.** Indonesia, Buliulin (station ber03/26), height 2.15 mm; **3-5.** *Hoenselaaria wareni* new species, Indonesia, Jawa, Tikus. **3-4.** Holotype, ventral view height 1.4 mm and protoconch; **5.** Paratype ventral view, height 1.1 mm; **6.** *Hoenselaaria wareni* new species, Yemen, top view.

1. New records and/or range extensions of marine molluscs in Indonesia, 8.

This document was created with Win2PDF available at <http://www.win2pdf.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.
This page will not be added after purchasing Win2PDF.