La Conchiglia

The Shell

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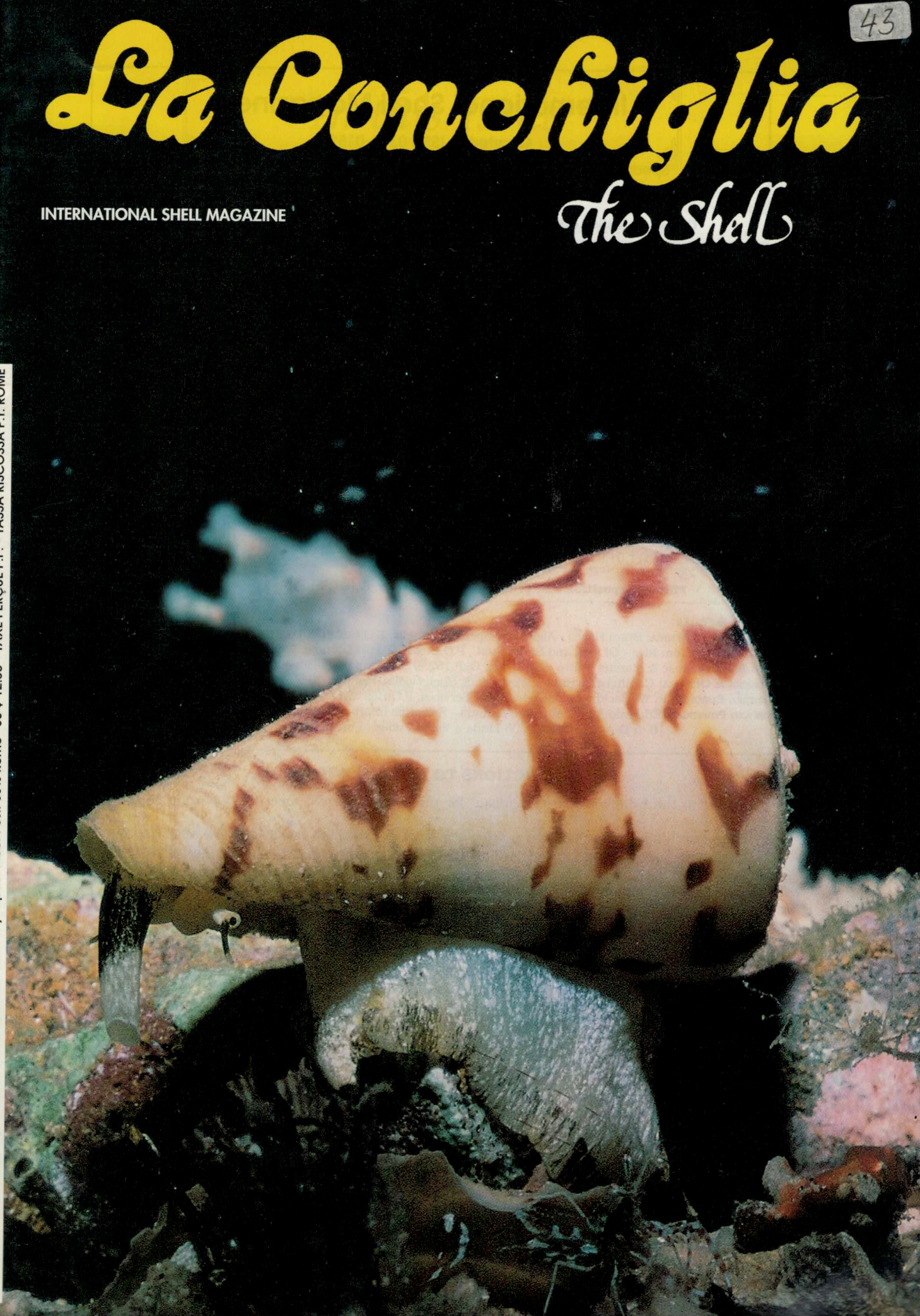

Further News on South African Muricidae

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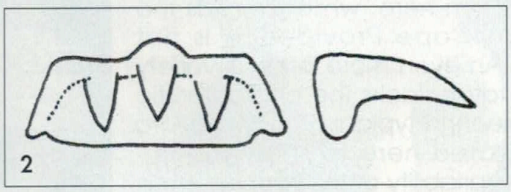
The South African coast is still a source of malacological surprises. In the past few years many new discoveries were brought to light not only by diving in the waters of the Cape and the wild coasts of Transkei, but also through the search for shells in crayfish traps, which lastly has evolved into to a rewarding method for obtaining in particular those small species not usually found by dredging or diving. We shall discuss here a number of interesting discoveries which were recently made, from crayfish traps set at dephts of 80 - 150 meters, along the coast between Port Elizabeth and Port Alfred, South Africa.

1. *Murexsul nothokieneri* Vokes 1978


1

A single specimen of this rare species was collected in a crayfish at approximately 100 meters of depth off Port Alfred. It measures 13.2 mm. In this live-collected shell it is apparent that the varices have a fine scabrous microsculpture, which is unfortunately always absent in the beached specimens normally available.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The animal is reddish brown with small yellow spots on the foot, tentacles and proboscis orange. The tentacles are short and blunt.Its radula is illustrated here.

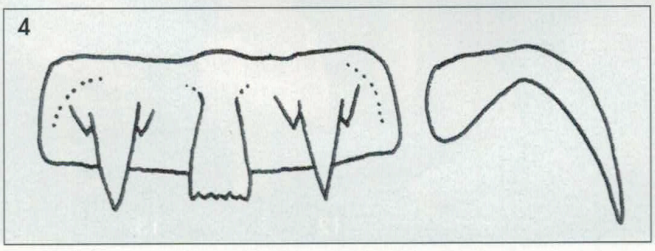
2. *Siphonochelus arcuatus* (Hinds 1843)

Few specimens of this rare Typhine species have turned up in good conditions. The few specimens I have seen before were worn or heavily calcified. The fresh shell show a reddish brown colour with a darker band towards the siphonal canal. Five specimens were studied, all coming from crayfish traps set at 80 -150 meters depth, between Port Elizabeth and Port Alfred, while a sixth specimen was found in a crayfish trap 100 meters deep, off Cape St. Francis. The animal is plain white, with short, clubbed tentacles and large eyes situated underneath. On either side of the radular *sacculus*, small pearl-like structures consisting in a translucent chalky substance were found inside the proboscis. These probably help in crushing food particles. Grit of Foramminifera skeletons were found in the stomach.


3

3. *Ocenebra aedicularum* (Barnard 1969)

In my recent review of some South African members of *Ocenebra*(1), also a fresh specimen of the deep water species *Ocenebra aedicularum* was illustrated. With the recent findings of Muricids from crayfish traps, several live collected *O. aedicularum* corresponding exactly to the original description and this former specimen were found.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Interestingly, *O. scrobiculata* were not found in the deep water habitat. The occurrence of *O. aedicularum* in moderately shallow water (15 m. at Port Elizabeth), along with *O. scrobiculata*, supports the distinction as valid species as proposed in my earlier article. The radula of

Fig. 5: *Ocenebra aedicularum*, crayfishtrap, Port Alfred, 100m.

Fig. 6: *O. aedicularum*, variation, crayfishtrap, Algoa Bay, 80m.

O. aedicularum is also illustrated.

4. *Ocenebra babingtoni* (Sowerby 1892)

The identification of the taxon *O. babingtoni* (Sowerby 1892) as an inflated variety of *O. scrobiculata* seems proven. This supports the assignment of this name made by Kilburn (2) and Radwin & D'Attilio (3), but contradicts the distinction introduced by Richards (4) and myself (5). In Richard's book and also in my article a so far unnamed, possibly new species, is erroneously illustrated as *O. babingtoni*.

Fig. 7: *Ocenebra sp.*, formerly misidentified as *O. babingtoni*, Gonubie

The inflated variation of *O. scrobiculata* has a scattered distribution along the Transkei coast. It is rather uncommon here, while towards the eastern Cape Providence is not found. An even more inflated variety which totally lacks the characteristic cords seen in typical *O. scrobiculata* is illustrated here to show the immense variability of the species. Such extreme shells come from a place called "Hole in the Wall", Transkei. The transitional form (=*O. babingtoni*) towards typical *O. scrobiculata* supports Kilburn's assignment of these extremes to the same species, *O. scrobiculata* (6). It is possible that parasitism or other ecological factors cause the abnormal growth in restricted and scattered localities along the South African coasts.

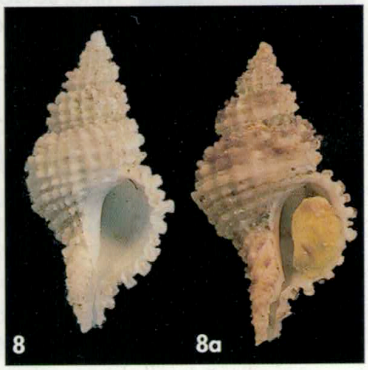


Fig. 8: *Ocenebra sp.*, from crayfishtrap, Algoa Bay to Pt. Alfred, 80-150m.

Fig. 9: *O. scrobiculata*, intertdally, Fullers Bay, East London.
Fig. 10: *O. scrobiculata*, variation, Jeffreys Bay.

5. *Ocenebra* sp.

Along with several live-collected *O. aedicularum* also two aberrant specimens measuring 14 and 15 mm turned up. These are of the same size as *O. aedicula-*

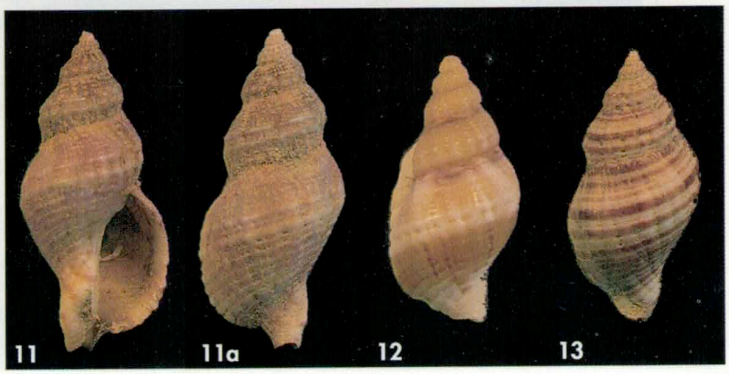
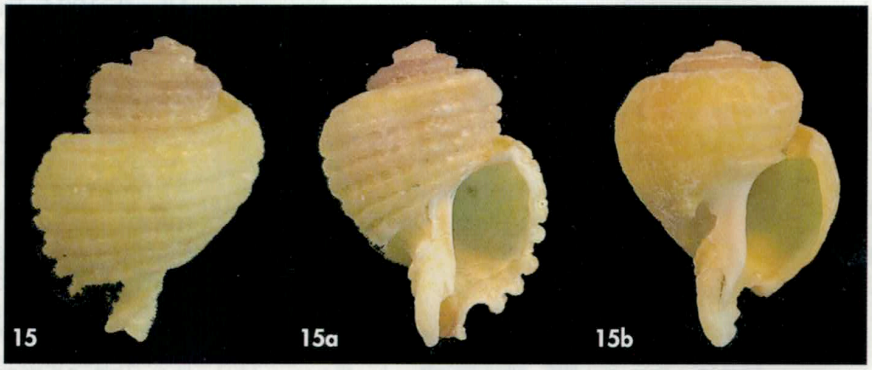


Fig. 11-11a: *O. fenestrata*, Algoa Bay, 80m.
Fig. 12: *O. fenestrata*, variation, Jeffreys Bay.
Fig. 13: *O. fenestrata*, crayfishtrap, Port. Alfred, 100m.

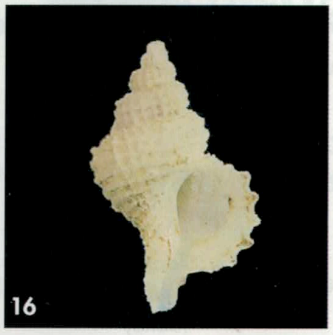
rum but have finer cords (13 instead of 9-10 in *O. aedicularum* and 7-9 in *scrobiculata*), which do not form an attenuated shoulder on the body whorl as in *O. aedicularum*. Compared to *O. scrobiculata* their cords are more scabrous. One white and one brown spotted specimen were found. It is possible that these belong to the same unnamed species mentioned above (formerly misidentified as *O. babingtoni* by Richards and myself) as shell characteristics are quite similar, although the beach specimens are smaller (9-12 mm.). Statistical comparison of the number of cords shows that out of 115 *O. scrobiculata* from various South Africa beaches, more than 80% show 7 cords on the body whorl, 8 specimen had 6, about 17 had 8 or 9 cords, and none of them had more than 9. Too few specimen of the new form are available to allow a direct statistical comparison, though the available data imply that we might deal with two separate species.

Fig. 14: *O. scrobiculata,* var.*babingtoni,* Hole in the Wall, Transkei.
Fig. 15: *O. scrobiculata,* var.*babingtoni,* extreme



6. Description of a new taxon in Muricidae

Three specimens of an apparently new species were collected along the above discussed material in dephts between 80 and 150 meters attached to crayfish traps, between Port Elizabeth and Port Alfred. The general appearance is quite different from any of the smaller Muricids found in South Africa, the small size resembles *Ocenebra* in general. Radula features and conchological details, such as the presence of an *intritacalx*, suggest that it stands closer to the Subfamily Trophoninae than to Ocenebrinae, the assignment to *Ocenebra* therefore must be considered provisional.



Family: Muricidae
Subfamily: Ocenebrinae

Ocenebra hayesi sp. nov.

DESCRIPTION

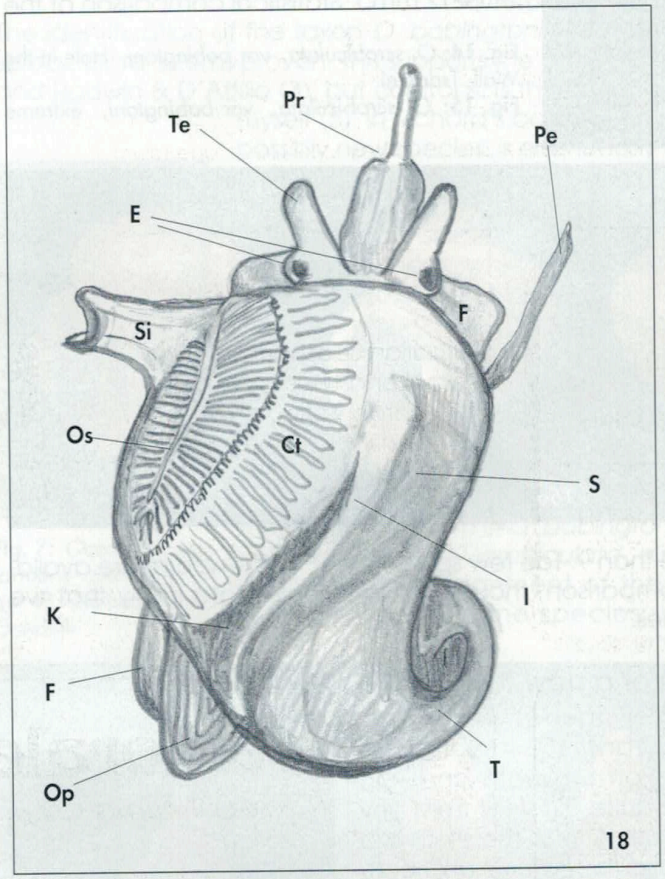
Small, translucent-white shell with three rather narrow postnuclear whorls and an inflated body

Fig. 16: *Ocenebra hayesi,* holotype 1, Algoa Bay to Port Alfred, 80 -150m.
Fig. 17: *Ocenebra hayesi,* paratype 1 (left & center), paratype 2 (right)

whorl. The conspicuous protoconch consists of two smooth whorls. The aperture is round, edentate, large in proportion, with a flaring labral margin showing six strong and few weaker, crispate marginal spines. Siphonal canal rather short, narrow. Surface with a fine, regular fenestrate sculpture in-between 14 (on body whorl) fine transverse spiral lirae. Surface smooth below the very thin layer of intritacalx. Radula consisting of approximately 100 rows (for details see illustration). Operculum very thin, horny, yellow-translucent. The dried animal was greyish-white whitout notable colour pattern (details of the animal are shown in the illustration).

TYPE MATERIAL AND DEPOSITORY

Holotype: 9.8 mm., HNC collection.
Paratype 1: 11.8 mm., Lorenz Jr. collection.
Paratype 2: 10.8 mm., Lorenz Jr. collection.



TYPE LOCALITY

From crayfish traps set at 80-150 mt. between Algoa Bay and Port Alfred, 1994. The new species is named in honour of Brian Hayes of Port Elizabeth, who supplied all the material discussed herein.

DISCUSSION

At first sight, the new species might resemble several of the smaller species of Muricidae from South Africa. However, the wide aperture and inflated whorls make it quite outstanding. The characteristic sculpturing of the shell distinguishes it at once from all other South Africa taxa. Further specimens are required to prove whether the plain white colour is another characteristic feature or not.

NOTES

(1) LORENZ, F., JR (1991):Notes on some South African Muricidae. *Schr.*

Fig. 18: Anatomy of *O. hayesi:*
Ct: Ctenidium
E: Eye
F: Foot
I: Intestine
K: Kidney
Op: Operculum
Os: Osfradium
Pe: Penis
Pr: Proboscis
S: Stomach
Si: Siphon
T: Testis
Te: Tentacle

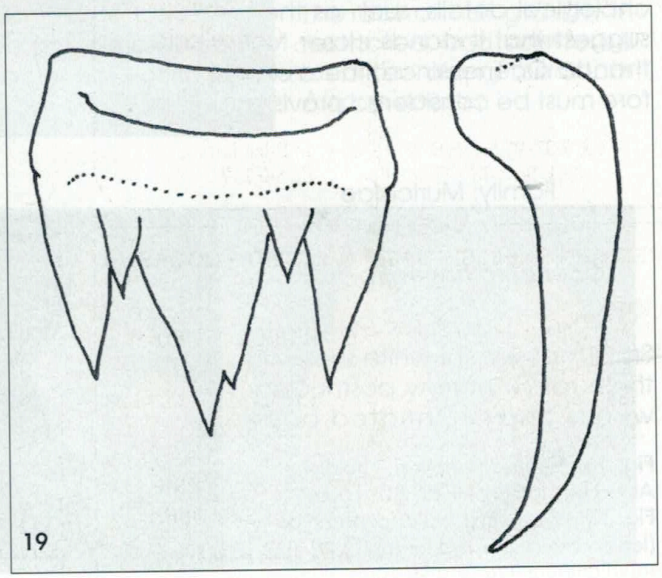


Fig. 19: Radula of *Ocenebra hayesi* n. sp.

Malakozool, 4, p. 57, ff Pl. 8.
(2) KILBURN, R. & RIPPEY, E. (1982): Seashells of Southern Africa. Macmillan South African Pty. Ltd., p. 82.
(3) RADWIN, G. E. & D'ATTILIO A. (1976): Murex Shells of the World, Stanford University Press, p.138.
(4) RICHARDS, D. (1984): South African Shells, C. Struik (Pty.) Ltd., p. 55, Pl. 29, fig. 223.
(5) LORENZ, F., JR (1990):Further Notes on South African Muricidae. *La Conchiglia*, **256**, p. 14, fig.3 (*O. bairstowi* is a misspelling).
(6) KILBURN, R. & RIPPEY, E. (1982): Seashells of Southern Africa. Macmillan South African Pty. Ltd., p. 82, pl. 18 fig. 12 a, b.

REFERENCES

LORENZ, F., JR (1991):Notes on some South African Muricidae. *Schr. Malak.*,**4**, p. 57, ff Pl. 8.
KILBURN, R. & RIPPEY, E. (1982): Seashells of Southern Africa. Macmillan South African Pty. Ltd.
RADWIN, G. E. & D'ATTILIO A. (1976): Murex Shells of the Word, Stanford University Press.
RICHARDS, D. (1984): South African Shells, C. Struik (Pty.) Ltd., p. 55, Pl. 29, fig. 223.
LORENZ, F., JR (1990):Further Notes on South African Muricidae. *La Conchiglia*, **256**, p. 12, ff..
KENSLEY, B. (1973):Sea-Shells of Southern Africa - Gastropods. Maskew Miller Ltd.., Cape Town.
BARNARD, K. H. (1973): A beginner's guide to South African Seashells. Maskew Miller Ltd.., Cape Town.

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