

## PRESIDENTIAL REPORT FOR 1991/2

In this report I shall again leave the discussion of society statistics in the far more capable hands of the director and shall instead deal with some of the more important scientific papers on molluscs, relevant to southern Africa, that have been received since my last report.

BOZZETTI, L & LUSSI, M. 1991. A new species from South Africa: *Colubraria eugenei* sp. n. *La Conchiglia* **22** (261): 51-53. [Markus Lussi has kindly lodged the holotype in the Natal Museum].

HOUART, R. 1991. Note on the variability of *Haustellum purdeyai* (Radwin & D'Attilio, 1976). *La Conchiglia* **22** (259): 8-10.

HOUART, R. 1991. Description of thirteen new species of Muricidae from Australia and the New Caledonian region, with range extensions to South Africa. *J. Malac. Soc. Aust.* **12**: 35-55. [*Pterynotus fulgens* Houart, 1988, *Muricopsis auratus* Kuroda & Habe, 1971, and *Siphonochelus tillierae* Houart, 1986, are recorded from our waters].

HOUART, R. 1991. Description of four new species of Muricidae from southern Africa with range extensions and a review of the subgenus *Poropteron* Jousseaume, 1880. *Apex* **6** (3-4): 59-76. [*Pteropura* (*Poropteron*) *multicornis*, *P.* (*P.*) *transkeiana*, *Muricopsis valae* (named in honour of member Val van der Walt) and *M. mbotyiensis* are described as new; other species of *Poropteron* are *P.*

*uncinaria* (Lamarck, 1822) (synonym *capensis* Sowerby, 1841), *P. graagae* (Coen, 1947) (synonyms *mitriformis* Sowerby, 1841 and *mitraeformis* Sowerby, 1879, names preoccupied, and *incurvispina* Kilburn, 1970), and *P. debruini* Lorenz, 1989. *Pteropurpura joostei* Lorenz, 1990 is regarded as a true *Pteropurpura*. *Typhis montforti* (A. Adams, 1863) and *Muricopsis tokubeii* (Nakamigawa & Habe, 1964) are recorded for the first time. The Natal Museum has no material of *Pteropurpura joostei*!!].

HERBERT, D.G. 1991. A revision of the genus *Agagus* Jousseaume, 1894. *J. nat. Hist.* **25**: 883-900. [*Gibbula townsendi* Sowerby, 1895, and *G. perspectiva* Sowerby, 1900, are synonyms of *Agagus agagus* Jousseaume, 1894, described from the Red Sea. A new species, *Agagus stellamaris*, is described from East Africa and Zululand].

HERBERT, D.G. 1991. New records from southern Africa and Mozambique. Part 1. *Ann. Natal Mus.* **32**: 305-318. [The following species are recorded from southern Africa or Mozambique for the first time. *Clanculus flosculus* (Fischer, 1880), *Tricolia variabilis* (Pease, 1861), *T. ios* Robertson, 1985, *Phyllocoma concoluta* (Broderip, 1833), *Amathina tricarinata* (Linnaeus, 1758), *Thyca astericola* (Adams & Reeve, 1850), *Patella flexuosa* (Quoy & Gaimard, 1834), *Rhinoclavis diadema* (Houbrick, 1878), *Colina macrostoma* (Hinds, 1843), *Natica violacea* Sowerby, 1825].

HERBERT, D.G. & KILBURN, R.N. 1991. The occurrence of *Pisulina* (Neritidae) and *Neritopsis* (Neritopsidae) in southern Africa. *Ann. Natal Mus.* **32**: 319-323. [*Pisulina adamsiana* G. & H. Nevill, 1869, and *Neritopsis radula* (Linnaeus, 1758) are shown to occur as far south as Zululand].

KANTOR, Y.I. 1991. On the morphology and relationships of some oliviform gastropods. *Ruthenica* **1** (1-2): 17-52. [Genus *Melapium* is placed in its own family, the Melapiidae, and the family Pseudolividae is recognised as distinct from the Olividae].

KILBURN, R.N. 1991. Turridae of southern Africa and Mozambique. Part 5. Subfamily Taraninae. *Ann. Natal Mus.* **32**: 325-339. [Three species occur in deep water off South Africa: *Taranis miranda* (Thiele, 1925), and new species *T. inkasa* and *T. columbella*].

MARTIN, P & POPPE, G.T. 1991. A new *Trivia* species from South Africa. *La Conchiglia* **22**(259): 2-3. [*Trivia massieri* is named after member Werner Massier, from specimens dived in Hout Bay. Specimens needed by Natal Museum!!!].

SALISBURY, R. 1992. Description of a new South African *Cancilla*. *La Conchiglia* **23**(262): 12-16. [Description of *Cancilla meyeriana*, named in honour of members Michael and Dawn Meyer].

**R.N. KILBURN  
PRESIDENT**

***Barycypraea fultoni massieri***  
**Lorenz, 1991**  
 (trawled off Mozambique)

A new subspecies of *Barycypraea fultoni* characterized by its greatly inflated dorsal dome, its longer, denser and more numerous teeth, its anterior extremity and more produced fossula, marginal tubercles are often visible.

The holotype of *Barycypraea fultoni massieri* n. sp. is fully adult and was delivered to the author complete with the preserved animal.

The shell is very solid and heavy, elegantly pyriform, with a greatly inflated dorsal dome and slightly flattened base. There may be more or less distinct tubercles along the margins, which are not necessarily correlated with any marginal spotting. The posterior extremity is rostrated, forming a deep channel that bends upwards. Towards the dorsum a callous deposit strengthens the area under which the spire is completely hidden. The anterior extremity is made up of spoonlike projections on either side which are covered by a dome, hiding the terminal channel completely from dorsal view. This structure is rather elaborate, though not fragile. From the projections, a slightly corrugated margin is developed, more obvious when the shell is viewed ventrally. Altogether the anterior portion of the shell is distinctly tapered off the greatly inflated body. The aperture is very narrow throughout, it does not widen anteriorly.

There are 19 well produced columellar teeth and 29 labral ones. These extend slightly on both sides, becoming notably denser anteriorly. The terminal ridge runs into the shell, connected with the distinctly projecting, slightly wavy fossula.

**The**  
***Cypraea fultoni*'s**

Compiled by Olive Peel from a paper entitled: "Description of a new subspecies of *Barycypraea fultoni* (Sowerby, 1903) ..." by Felix Lorenz, jr., Lauenburg, W.Germany

The shell has a very thick, milky nacre which is not smooth but finely granular, especially the posterior dorsal portion is covered with fine microscopic warts.

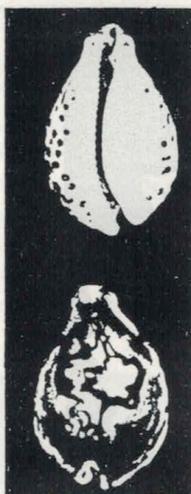
The shell has a dull appearance as if it was varnished. The base of the shell is a dirty white with a shade of orange towards the pale yellow brown teeth. The margins are still paler than the base, with distant, rather indistinct orange or brown spots which become darker or denser towards the dorsum and finally disappear under the greyish-brown zone which reaches to the projections of the anterior extremities and frames the dorsum.

The "maltese-cross"- markings are blurred, consisting of irregular, more or less parallel stripes of different shades of brown. When the markings are covered by callus, they may have a bluish-grey tint. Towards the posterior extremity they form slight depressions left and right. Mid-dorsally the embryonal zigzag-banding can be seen on a creamy white background.

**Comparisons:**

The most striking feature of the new subspecies, is the greatly inflated dorsal dome, always giving the shell a globular appearance, while the other two subspecies of *B. fultoni* are depressed. The new form differs from *B. f. fultoni* in the more numerous teeth, especially on columellar side, these are also longer and denser. In *Barycypraea f. massieri* n. sp. the anterior extremity is more elaborate-fragile, the fossula slightly more produced.

*Barycypraea f. fultoni* is usually shiny



*Barycypraea fultoni massieri*  
 Lorenz, 1991  
 Trawled off Mozambique

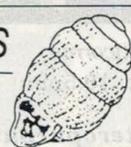


*B.f. fultoni*  
 (Sowerby, 1903)  
 Natal Coast



*B.f. amorini* (Raybaudi, 1990)  
 South of Quelimane,  
 Mozambique

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and smooth when fresh while the new subspecies has a granular surface in most cases. The basal spotting in the new race is very variable in intensity, but it more often seems to fade completely. The marginal spots forming tubercles is a feature only seen in *B. f. massieri*.

Differences between *B. f. amorini* and the new subspecies are apparent: while in *B. f. amorini* the base is plain greyish white and convex, it is flattened and often tinted darker than in *B. f. massieri*. The callous marginal processes in *B. f. amorini* separate it at once, also the deltoidal-depressed shape give a completely different impression than the inflated, pear-shaped *B. f. massieri*.

For a long time the classic *B. fultoni*

*fultoni* was available only from the stomach of Musselcracker fish caught off the Natal coast. Only once or twice was a living specimen of *B. fultoni fultoni* dredged at about 90m. A single specimen was found diving in 1990 at 55m on a low profile reef in Natal.

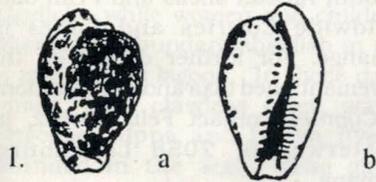
Some light was brought into the mystery around *B. fultoni* when the extensive populations of *Barycypraea* in Mozambican waters were discovered. Apparently, the genus *Barycypraea* is more widespread than formerly thought, having survived in an area of almost 2000km along the southeast African coast, in competition with modern genera such as *Lyncina* and *Erosaria*.

*Barycypraea fultoni amorini* is very distinct and outstanding. No other living

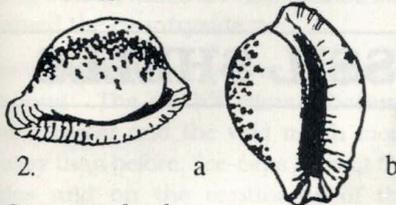
member of Cypraeidae shows a comparable development of marginal calluses along with such a striking pattern. It is similar to the extinct *Barycypraea caputviperae* Martin 1899, from the Neogene of Java in general outline, rather than the two races of *B. fultoni*.

**Derivatio nominis:** The new race is named in honour of Mr WERNER MASSIER of Margate, Natal, who first drew attention to the decisive differences in shell dimensions and number of teeth and who also supplied the type material.

(Ack: Schr. Malakozool. 4. 27-38, Taf. 5-6. Cismar/Ostholstein, 20.11.1991. ISSN 0936-2959)



*Cypraeovula mikeharti*



*Cypraeovula algoensis permarginata*

In recent years many new names have been introduced for various shell families from South Africa. Since I am also responsible for quite a few of these new taxa, collectors from S.A. have criticized that my articles have only been published here in Germany (although most are in the English language). Therefore I shall give a summary of the Cowries and Muricids that I have described from South Africa.

1. *Cypraeovula mikeharti* Lorenz, 1985 (Heldia 1 (3): 95-98)

superficially resembles *Cypraeovula algoensis*. The shell is slightly lighter in weight, and darker, brownish to purple (therefore it is often called "purple form of *algoensis*"). The spire is not covered by callus and the labral lip is barely visible from a dorsal view. The callus accumulation on the anterior extremity which characterizes *algoensis* is reduced to absent in *mikeharti*. The posterior labral teeth tend to disappear. The

## NEW NAMES FOR SOME SOUTH AFRICAN COWRIES

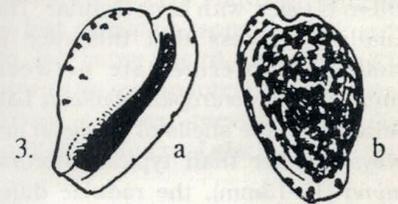
by  
Felix Lorenz, jr.

species was named because of constant animal differences: the mantle in *algoensis* (even in very dark pink specimens) is always translucent pale greyish to orange while in *mikeharti* (even in pale shelled specimens) it is black.

The radulae differ considerably. *C. mikeharti* is common only in rather shallow water (5-15m) in Western False Bay where it lives under black sponges. The size ranges from 17 to 24mm. (no. 1 a,b)

2. *Cypraeovula algoensis permarginata* Lorenz, 1989 (Schr.z. Malakozoologie 2:1-38):

This is a deep water subspecies of *algoensis* which differs by the finer, confluent spotting and a different dentition, which tends to disappear on the columellar side and towards the aperture on the labral side while being more distinct towards the margins. The type material was found in crayfish traps at Cape St Francis and Algoa Bay. This taxon actually deserves the name "*algoensis*", as it is the only race of this species which really occurs at Algoa Bay. The internal anatomy of *permarginata* implies that it takes an intermediate position between *algoensis* and *edentula*. Few specimens have been found, and then only in deep water; no



*Cypraeovula edentula nahoensis*



4.  
*Cribrarula cribraria abaliena*

shells wash up on beaches. It ranges between 17 and 26mm. (no. 2 a,b)

3. *Cypraeovula edentula nahoensis* Lorenz, 1989 (Schr.z. Malakozoologie 2:1-38):

This spectacular subspecies has recently been collected alive for the first time. Fresh shells have purple margins and a bright and dark dorsal colouration. This eastern race (from the Ciskei coast

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to *Gonubie*) differs from *edentula* by the darker, confluent dorsal pattern, and a more or less distinct dentition on both sides of the aperture towards the anterior end. The animal is similar in its external features to *edentula*, but has a different radula. This race ranges between 20 and 30mm. (no. 3 a,b)

4. *Cribrarula cribraria abaliena* Lorenz 1989 (Schr. z. Malakozologie 2: 1-38):

Actually this race is characteristic for the deeper water around Zanzibar Island, but a few shells have been found in the Richards Bay area, *ex pisce*. It differs from the classic *cribraria comma* (often found along the Southeast African coast) by being rhomboidal-depressed and callous, with paler dorsal pattern and bent up margins. The dorsum may be partially obscured by callus. The dorsal pattern is paler, with large lacunae. The name shall stress that this race is considered intermediate between *cribraria* and *esontropia (abaliena* Lat: "estranged"), the shells of *abaliena* are always smaller than typical *cribraria comma* (10-15mm), the radulae differ

considerably. (no.4)

5. *Staphylaea limacina clarissa* Lorenz 1989 (Schr. z. Malakozologie 2: 1-38)

Named in honour of Mrs Clarissa Newman (Int. Council of Women, mother of Noggs Newman). This is what South African collectors know as *Staphylaea limacina* from South Africa. It differs from typical *limacina* by the midway shortening columellar teeth and minor anatomical details. Fresh shells resemble the Hawaiian *semiplota* as they have a similar dark staining of the marginal pitting. It ranges from the East London area to as far north as Tanzania, but it is most common along the Transkei wild coast.

6. *Staphylaea staphylaea nolani* Lorenz 1989 (Schr.z.Malakozologie 2: 1-38):

This subspecies seems to be endemic to the Transkei. It is much shorter than typical *staphylaea*, the margins are callous and reach onto the base, partly obscuring the dorsal pattern. The teeth are shorter than in *staphylaea* as they do not reach the margins midway. The

marginal pitting is commonly tinted with brown. This rare subspecies has rarely been collected alive and a preserved animal is needed to learn further about its status. It was named in honour of my friend Nolan Webb of Grahamstown.

Unfortunately the description of *Cypraeovula mikeharti* is no longer available but a detailed discussion in English language, along with the other descriptions have been published in the new magazine, "Schriften zur Malakozologie", of which the complete Volume is still available. I recommend anyone interested in Cowries and other marine families to subscribe to this magazine. For further information contact: Dr Vollrath Wiese, Hinter dem Kloster 42, 2433 Cismar Germany.

For my studies I am looking for all kinds of South African shells and I can offer worldwide Cowries and Cones in exchange. For further details on the abovementioned taxa and any questions on *Cypraea* contact Felix Lorenz, jr. Ginsterweg 6, 2058 Lauenburg, Germany.

## SEDGEFIELD'S INTERESTING FOSSIL SHELLS

by  
Johan Marais

Fossil shells reveal a world that vanished thousands of years ago at Sedgfield.

During the construction of the wooden stairs leading to the mouth of the Swartvlei lagoon, the hillside was disturbed and the underlying reddish brown sand was exposed. It was seen to contain a variety of sea shells. To the uninformed eye, these shells look like most other bleached shells one could find in the nearby rock pools. However, geologists know that these perfectly preserved shells are actually fossils belonging to a bygone era of some 125000 years ago, called the late Pleistocene. What can these fossil shells tell us about the prevailing conditions and life at Sedgfield many thousands of years ago?

Fossil shells are the skeletons of molluscs which lived in ancient times. Living molluscs have very specific

temperature requirements. Those adapted to the cold water along our West Coast and Cape South Coast do not occur in the warmer waters along the East Coast of Africa, while the warm-water species of Natal do not survive in the cold waters of the Cape. Strangely enough, the living relatives of most of the fossil shells at Sedgfield, such as the *Cerithium*, *Cantharidus* and *Rhinoclavis* species, only occur in warm

tropical waters at present. The *Cerithium sp.* is still common in the Red Sea, Persian Gulf and India, but does not occur farther south than the Seychelles. The *Cantharidus sp.* can still be found in Tanzania and Mozambique, while the *Rhinoclavis sp.* occurs in the warmer waters of Natal. Only the *Turritella sp.* is still living in the nearby Knysna lagoon. This suggests that Sedgfield once had a lush tropical climate. The fossil deposits at Sedgfield

occur some distance from, and about five to seven metres higher than, the present sea shore. These marine deposits, or "raised beaches" indicated the positions of ancient shorelines. The shoreline is determined by the sea-level which, in turn, is controlled by the amount of water released from the polar ice-caps during fluctuations in solar radiation.

