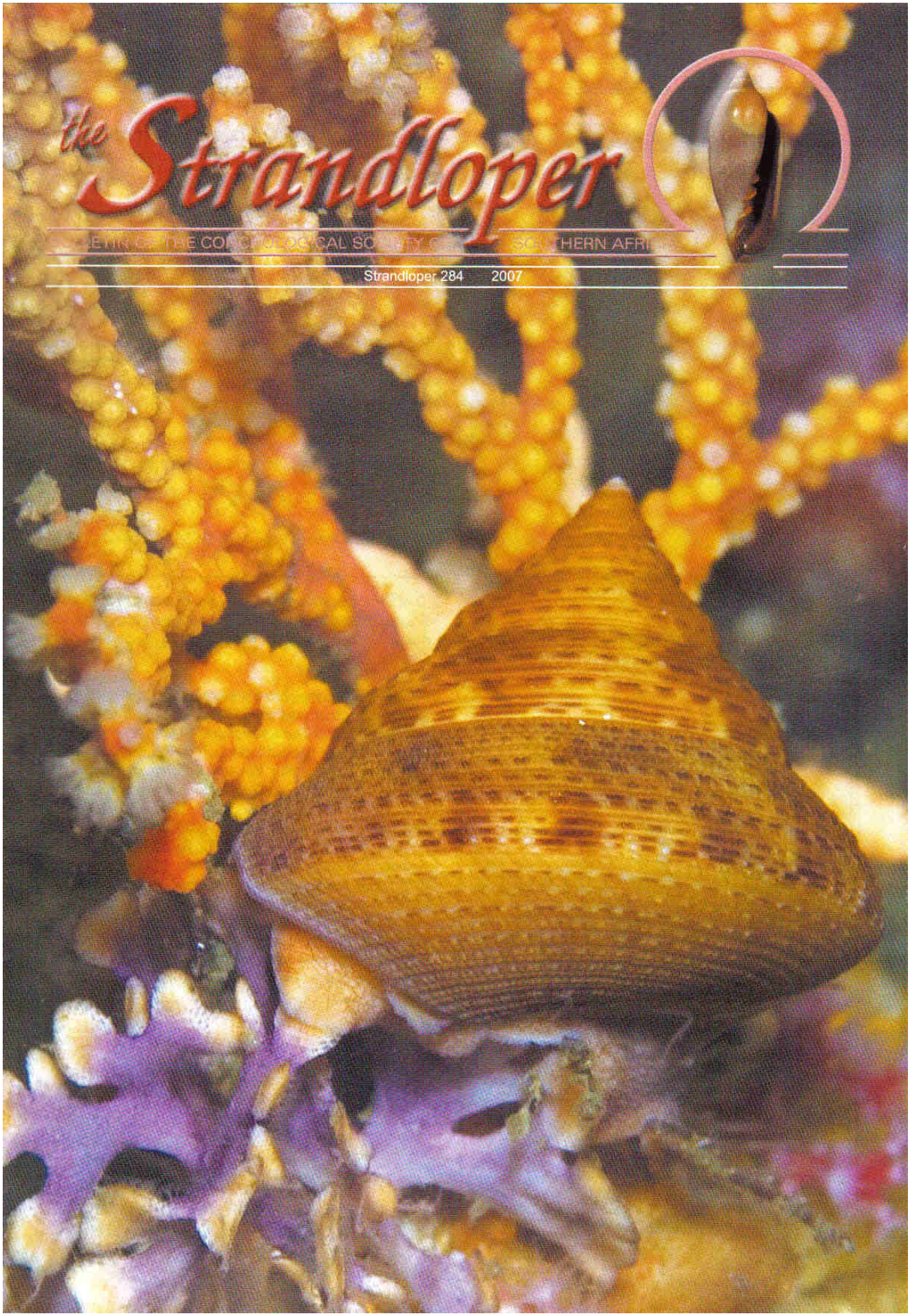
the Strandloper
BULLETIN OF THE ECOLOGICAL SOCIETY OF SOUTHERN AFRICA
Strandloper 284 2007

Conchological Society of Southern Africa

Founded 1958

Patron : Dr R.N. Kilburn

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Ed.

The Strandloper, official bulletin of the Conchological Society of Southern Africa, is issued as part of membership dues. It is published in March, June, September and December.

Front Page

Calliostoma cf. ornatum (Lamarck, 1822) on hard corals.

Photographer: Elsa Hoffmann
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In this Issue

In Memorium

Ann Lambert (1935 - 2006)

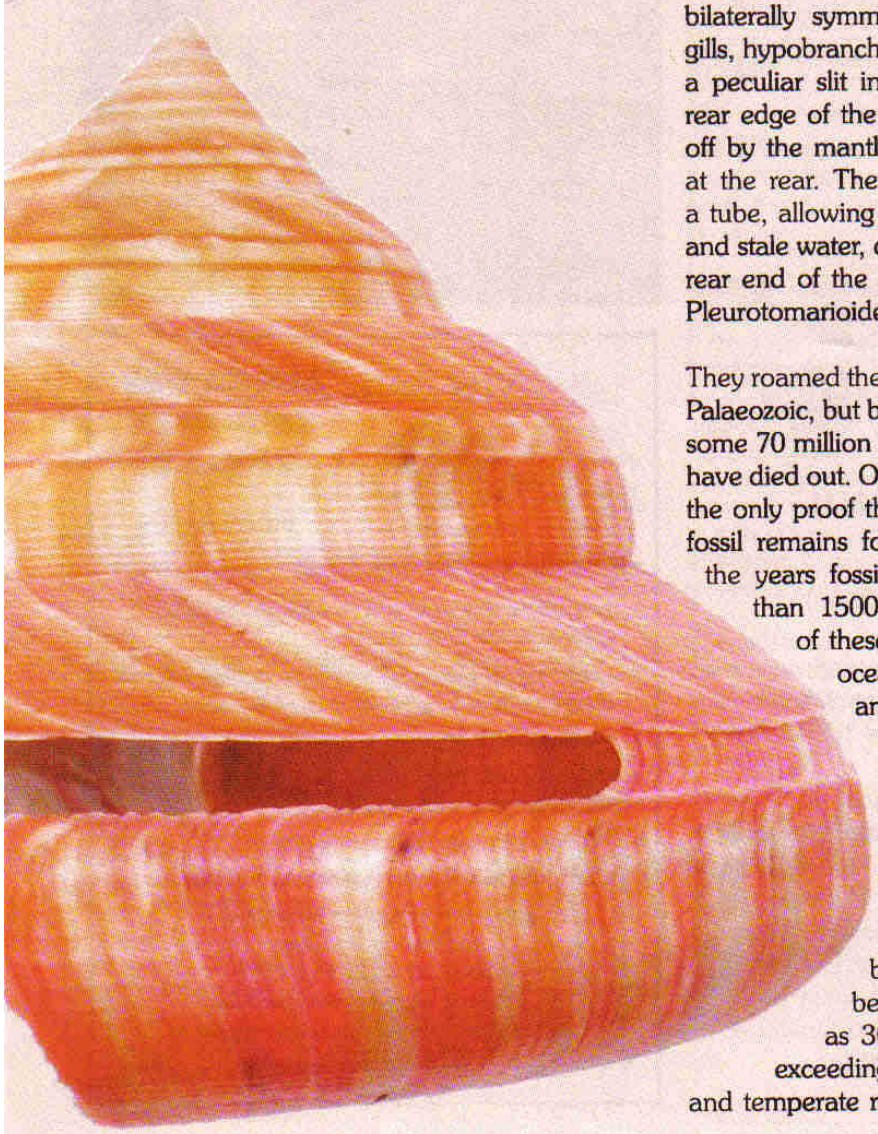
Mother Isabell Lambert, sister Georgina and Ann were all members of the Conchological Society for many years, since the 1960's.

They had a wonderful collection, as they had also lived in Tanganyika, East Africa and Australia.

Member of the Durban Undersea Club, assistant and curator of the Durban Botanical Garderns until 1996, when she went back to live in Australia at Perth where she was a volunteer guide at Kings Park Gardens.

On the trail of the slit snail

by Johan & Alwyn Marais



Long, long ago, when the world was still inhabited by dinosaurs, there lived some strange molluscs in the oceans of the earth. They had primitive bilaterally symmetrical body plans, with paired gills, hypobranchial glands and kidneys. They had a peculiar slit in the outer lip, extending to the rear edge of the gills. Most of the slit was closed off by the mantle edge, but an opening was left at the rear. The mantle cavity therefore formed a tube, allowing clean water to enter at the front and stale water, containing excreta, to leave at the rear end of the slit. These were members of the Pleurotomarioidea.

They roamed the oceans in vast numbers since the Palaeozoic, but by the time of the Great Extinction some 70 million years ago, all members appear to have died out. Other molluscs took their place and the only proof that they had ever lived was their fossil remains found in sedimentary rock. Over the years fossil hunters have uncovered more than 1500 different species, reminding us of these once common members of the ocean fauna. But then in 1856, to the amazement of the scientific world, a lone hermit crab with a slit shell on its back stumbled into a fish trap. The search was on to find live specimens!

Over the past 150 years fewer than 30 living species have been discovered. Some have been collected at depths as shallow as 30 m, while others live at depths exceeding 750 m. They inhabit tropical and temperate regions, usually on hard bottoms.

Many species live on steep slopes or even vertical rock walls. They all have wide radulae with many teeth (sometimes called bristle teeth) and feed on sponges, soft corals, stalked crinoids and perhaps other microscopic animals.

Only one species, *Perotrochus africanus* (Tomlin, 1948), is known from South Africa and was discovered by the survey ship Pickle in 1931. In recent years it occasionally turns up in the nets of Durban deep-sea trawlers fishing for cray fish in 250-450 m. It appears to be associated with sponge-covered bottoms. This fragile, orange-coloured shell is known to local deck hands as a "morning glory".

Due to the great depth at which most species live, our knowledge of their behaviour is limited. However, since the advent of modern technology the situation is changing fast. A joint research team of the National Museum of Natural History, the George Mason University and the Bailey Matthews Shell Museum at Sanibel, Florida, is using a 4-man submersible to take scientists down to a depth of almost 800 m, allowing them to study the slit snail in its natural habitat. Dr Jerry Harasewych, who has been using submersibles for the past 12 years to study the natural history of the Mollusca, is leading the team.

The present study in deep water off the Bahamas showed that slit snails have the peculiar habit of exuding a milky substance into the water when disturbed. It resembles a thick cloud of smoke in still air. The substance is produced by the hypobranchial gland and is suspected to be a deterrent affecting the nervous system of predators. Most shells show repair marks, suggesting predation by crabs. The milky fluid will now be tested for useful pharmacological properties. DNA extracted from soft tissue like the gonads or heart muscle is used to determine how slit snails are related to other more modern gastropods. The chemical sequence in DNA may bear light on patterns of evolutionary history. Although living species appear to be morphologically almost identical to fossil forms, the DNA studies so far show that in other respects they are evolving at a much faster rate than most other molluscs. This might explain why slit snails, in spite of their ancient appearance, survived for hundreds of millions of years.

A typical scene from 400 feet below the surface. Small corals and sponges abound in the realm of this large gastropod, Adanson's slitsnail.

Courtesy: Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute.

The Midas Slit Shell. *Bayerotrochus midas*. Crawling along the underside of an overhanging rim of a rock wall at a depth of 1,400 ft. along the walls of Jordan Sinkhole, Portales Terrace, off the Florida Keys.

Image courtesy of Brooke et al, NOAA-OE, HBOI.

Lucaya shows its other defense. In an amazing display, *Perotrochus lucaya* excretes a sizeable quantity of a milky looking substance.

Courtesy: Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute.

An improbable landscape for almost any animal, yet these relatively large Lucaya slitsnails thrive here at 1400 feet below the surface. The organic "snow" covering the floor is light and compressible, leaving a faint track of the snail's activity

Courtesy: Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute

Looking like a cap on the stalk of a mushroom, *Perotrochus midas* seems to have an oddly proportioned shell relative to its large foot.

Courtesy: Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute

At 2,500 feet, chalky looking organic sediments accumulate to cover the sea floor. The pearlescent shell of *Perotrochus midas* stands out against this "snowy" backdrop.

Courtesy: Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute

Searching for slit snails is a far cry from normal SCUBA investigations. The researchers are making use of the 288-ton Research Vessel *Edwin Link* that is fully equipped for deep-sea research and for transporting the 13-ton submersible to the diving site. Apart from the normal grabbing devices, life support systems and camera and video equipment, the sub is fitted with a Plexiglass sphere with a diameter hardly bigger than 1.5 m for the 'comfort' of the pilot and one scientist. A second chamber, in the shape of a short sausage, holds two more persons, but they have to lie down or fold themselves into a ball!

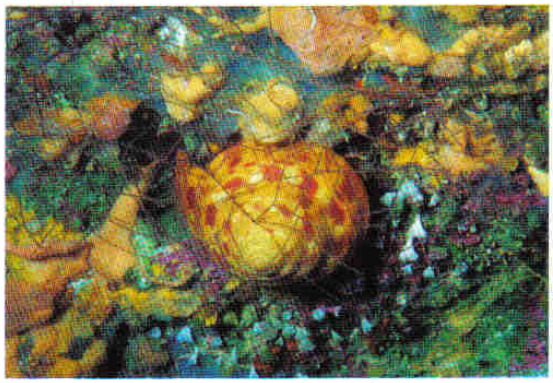
During the descent the filtered light changes everything into shades of blue and grey. According to Dr Harasewych, the full 3-dimensional view into this strange world is nothing short of spectacular. Further down, the sub sinks into pitch darkness. The Plexiglass sphere contracts under the tremendous water pressure, causing the floor of the chamber to pop up a little as the diameter of the sphere diminishes, thus bringing the occupants' knees even closer to their chests! At the bottom the powerful lights of the sub reveals a lunar-like landscape with steep slopes covered in fine sediments. While the pilot cruises the sea floor, or hovers against rocky cliffs, the members of the research team search for specimens.

Life at such a depth is not abundant, but odd-looking fish, sea stars and sea cucumbers are occasionally seen. The excitement is therefore great when a slit snail comes into view. The lights of the sub only illuminate a small area of the inky darkness. Peering out at the ocean floor is therefore like looking through a keyhole. A further handicap is the fact that from the inside the Plexiglass sphere acts as a concave lens, making everything appear much smaller than its actual size. A 100 mm slit shell therefore appears to be the size of a 5c piece.

When a shell is spotted the mechanical arm and a collecting bucket come into play. The mechanical arm can recover samples by means of a grasping claw, a suction tube or a closing scoop. Researchers spend six to seven hours per day in the sub collecting samples. The cramped conditions have a strange effect on them. On

their return to the surface they tend to move about slowly and feel shorter than normal. They are always relieved to be back and, above all, thankful for enough space to stretch and loosen the joints before spending many more hours in the laboratory on deck investigating the day's finds.

Thanks to modern technology, scientists like Dr Harasewych are staying on the trail of the elusive slit snails and are making great strides in gaining a better understanding of their evolutionary history and their relation to other gastropods.

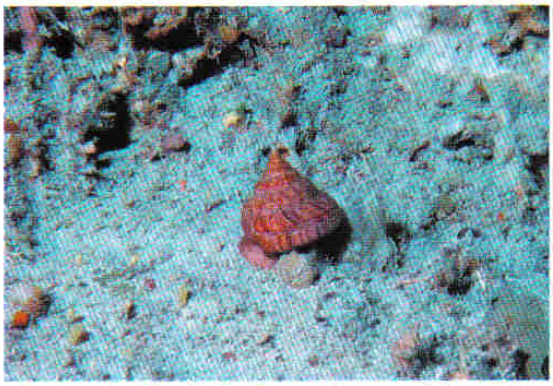


The shallowest dwelling slit shell, *Entemnotrochus adansonianus*, beneath a net-like branching atipatharian coral, and above a group of white solitary corals (*Thalamophyllia sp*).

Image courtesy of Brooke et al, NOAA-OE, HBOI.

The slit shell, *Bayerotrochus midas* feeding on a sponge at a depth of 2,500 ft in the Bahamas.

Image courtesy of Brooke et al, NOAA-OE, HBOI.



The Lovely Slit Shell, *Perotrochus amabilis* inhabits a rubble strewn area between 850 and 700 ft. along Tennesee Bioherm 1, a mound that extends from the sea bottom at a depth of 1,000 ft to within 550 ft of the sea surface.

Image courtesy of Brooke et al, NOAA-OE, HBOI.

The slit shell *Perotrochus quoyanus* feeding on a soft coral.

Image courtesy of Brooke et al, NOAA-OE, HBOI.

Adanson's Slit Shell, *Entemnotrochus adansonianus*, near the top of Tennessee Bioherm 1, feeding on an encrusting sponge.

Image courtesy of Brooke et al, NOAA-OE, HBOI.

Gastropodial MUSINGS

an informal column for questions, thoughts and answers

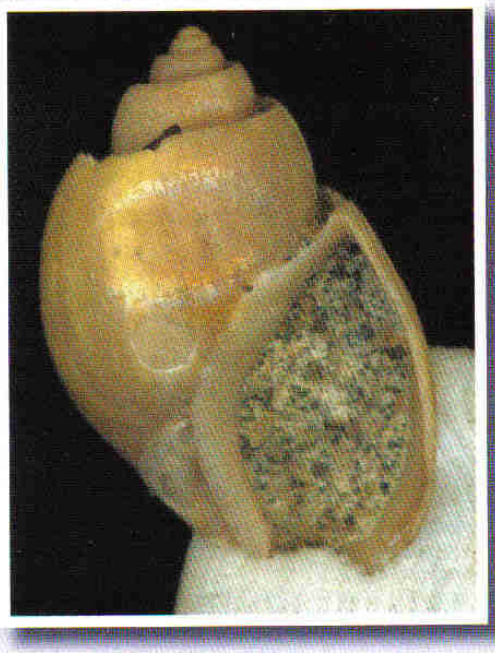
by Ray Aiken

"MYSTERY CANCELLARIAS AND THE MANY BEAUTIFUL FACES OF CONUS PICTUS."

Cancellaria sp.

This unusual, completely smooth shell, clearly Southern African (on a Xenophora with *F. queketti*), remains unidentified.

This genus is known for members that posses a deep subsutural canal, leading to almost total separation of the final whorl, and a defined, angular outer lip. It is tempting again to consider that the "babingtoni/scrobiculata aberrant or monstrosity" (only from central Transkei) is possibly a Cancellaria posing as an Ocenebra?!



Conus pictus Reeve, 1842

Lastly there is much food for thought in this series of shells, proving how amazingly variable a single species can be in colour and shape.

The "pictus pattern" could be taken up north to Durban where its closest "relative" could be *Conus visagenus* Kilburn, 1974.

Conus pictus "transkeiana"

Conus visagenus

AGM

The Annual General Meeting of the **Conchological Society of Southern Africa** will take place on Saturday 19th May 2007 at the Pretoria Zoo Hall starting at 11am.

Please take special note that this is a voting year and that nominations for office bearers must reach the secretary no later than Saturday 28th April 2007. Nomination forms can be obtained from the secretary. The following is a list of office bearers:

President
Vice-president
Secretary
Treasurer
Editor - Strandloper
Additional members (max. 3)

Should you feel that you would like to nominate a member of the Society for a position on the committee, please make sure that the nominee accepts the nomination before it is submitted. Please also make sure that the member nominated is a member of the Society and in good standing.

As usual the AGM will follow the Pretoria group meeting. The exhibition subjects are 1) An interesting find
2) Magnificent cowries

All members and their families are invited to attend. A finger lunch will be served.

Agenda

1. Welcome
2. Honouring members that have passed away
3. Approval of minutes
4. Matters arising from above-mentioned minutes
5. 25 year Membership Certificates (After 1999)
6. Management Reports
   a. President's Report
   b. Financial Report
   c. Feedback from the Groups
7. Election of Committee Members
8. Exhibit – Judging will take place and the winner announced during teatime.
9. General

Ex-Countdown

This is the last selection of shells before we get to the final ten shells. Even now it has become very difficult to select the favorite ones as they all become very special shells.

Displayed is the third set of five shells.

Danny Spengler

13

Taranis erythraeus
(Jousseaume, 1895)
If ID correct, first record from SA waters, 7 mm.

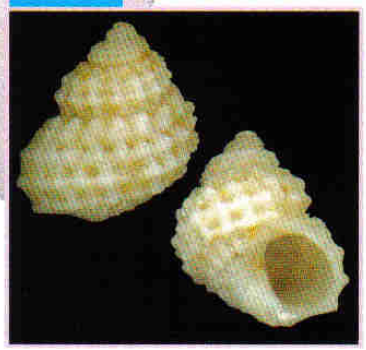
15

Crenavolva draperi
Cate & Azuma, 1973
New range extention for this shell, 7.4mm

12

Cypraea tortirostris
Sowerby, 1906, 1973
No two the same

14



Trochidae sp.
Possible new specie, 7mm

11

Gingicithara lyrica
(Reeve, 1846)
So elegant, 14mm

Bolma massieri

Bozzetti, 1992

The holotype of *Bolma massieri* has been dredged off Durban in 110-150 m. It is now known to have a much wider distribution, ranging from Mozambique to Algoa Bay. The teleoconch whorls of *Bolma massieri* are angulate in profile and the suture is obscured by a spiral row of hollow, triangular spines, above which a second spiral row of much smaller spines is situated. The surface of the shell is uniformly covered by small scaly tubercles and the base is flat. Specimens, however, show considerable variation in appearance over the distribution range.

Some individuals have a much higher spire than others (compare Figs. 1 and 2).

Specimens from the southern end of the range tend to have more, but smaller spines than Natal specimens (about 24 vs. 15). Natal shells tend to be reddish brown with broad, greyish brown axial flames bordered by thin, dark brown lines. Southern specimens usually have wavy, dark brown axial streaks and superficially resemble outsized *Bolma tayloriana* (E.A. Smith, 1880) without the two spiral rows of spines (compare Figs. 3 and 4). *Bolma tayloriana*, however, differs further in that the surface is covered by smooth granules, the base of the shell is convex and the whorls are not angulate.

Fig. 1 Specimen off Natal south coast.

Fig. 2 Specimen off Zululand (Rina Matthee Collection).

Fig. 3 Specimen off Algoa Bay.

Fig. 4 Bolma tayloriana off Cape St. Blaize.

IN SHORT ...

Included in this Strandloper is a form prepared by Barbara Fouché, historian from the Durban group.

The aim is to update the records regarding any publications, articles, studies or specie descriptions that were done by members as well as any new species that may be named after them.

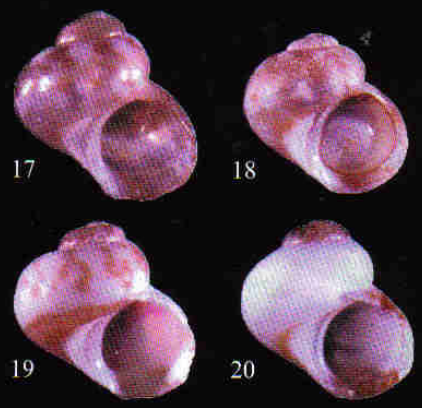
Please complete the form and add any relevant information. The form can be sent directly to Barbara or you could forward it to the Society secretary.

Mactra glabrata Linne', 1767

"*Mactra* occurs in incredible densities in some lagoons, particularly in areas where currents are strong. The animals are so numerous in the channel entering Langebaan Lagoon that they orient parallel to one another in order to fit in side by side: there are up to 400 per m^2 with a wet flesh weight of over five kilograms! Another indication of their density is the fact that juveniles are never found mixed with adults: presumably the larvae never have a chance of settling where the densely-packed adults are vacuum cleaning the water. At such high densities, *Mactra* must filter enormous volumes of water, and is surely partly responsible for the clarity of the water in Langebaan Lagoon."

Extract from "The Living Shores of Southern Africa" by Margo & George Branch, p96

Recently described



Figs 17–20. ***Tricolia saxatilis sp. n.***, variation in shell colour and pattern: (17) holotype, length 2.04 mm, width 1.70 mm, (18–20) paratypes.

Photo courtesy: T. C. Nangammbi and D. G. Herbert

Tricolia saxatilis

Nangammbi & Herbert, 2006

Colour variable, usually whitish or pinkish, with axial patterns of red or brown. Shell globose, spire relatively low and rounded, suture strongly indented. Sculpture of fine spiral threads. Umbilicus open. Attains 2.0 mm.

Distribution and habitat: Northern KwaZulu-Natal to eastern Cape. Infratidal, inhabiting off-shore reefs in 8-36 m.

Note: Characterized by its small size, low spire, convex whorls and open umbilicus. For further details see African Invertebrates 47, 11-22 (2006).

Tricolia adusta

Nangammbi & Herbert, 2006

Colour pattern variable, typically buffish, with zigzag brown axial lines and subsutural blotches, evidently never with blueish subsutural spots or pink dots on first two whorls. Suture weakly indented, whorls rounded with periphery slightly below mid-whorl. Shell smooth and glossy, umbilicus closed. Attains 4.4 mm.

Distribution and habitat: Northern KwaZulu-Natal to eastern Cape. Shallow infratidal to 70 m, inhabiting off-shore reefs.

Note: Occasionally cast ashore. Previously identified as *Tricolia africana* (Bartch, 1915), but differs from true *Tricolia africana* in its less elongate shell and lower spire, and lacks light blue spots below suture. It lives sub-tidally, while *Tricolia africana* is an intertidal species. It resembles *Tricolia formosa* (Turton, 1932) in shape, but lacks the pink spots on apical whorls.

Figs 1–8. ***Tricolia adusta sp. n.***, variation in shell colour and pattern: (1) holotype, length 3.30 mm, width 2.24 mm, (2–8) paratypes.

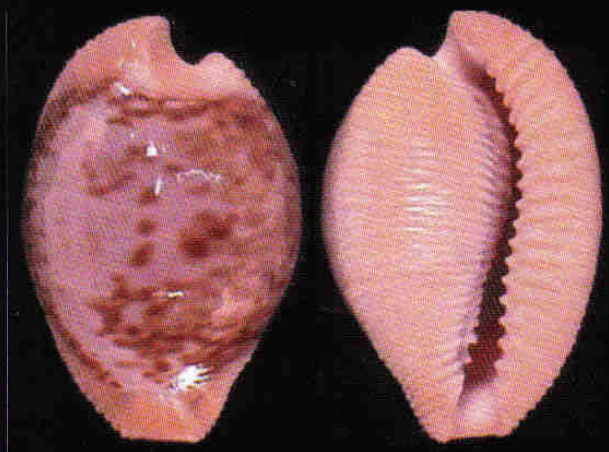
Photo courtesy: T. C. Nangammbi and D. G. Herbert

Fusinus flammulatus
M. Lussi & P. Staalschmidt, 2007

Medium size, prominent angular periphery and weakly concave shoulder slope, periphery median on spire whorls but one third from suture on body whorl. Colour of shell cream with axial reddish-brown flammules and blotches which are more pronounced on axial ribs.

Distribution and habitat: Natal and southern Mozambique, in 120-300m.

Note: Often mistaken for *F. nicobaricus*, but differs in being broader, smaller size, having a false umbilicus, longer and broader siphonal canal.



Cypraeovula kesslerorum
Lorenz, 2006

Characterized by its distinctly ribbed base and ribbed peristome. Attains 24mm.

Distribution and habitat: East London area, in 90-100m.

Note: Few specimens have so far been found.

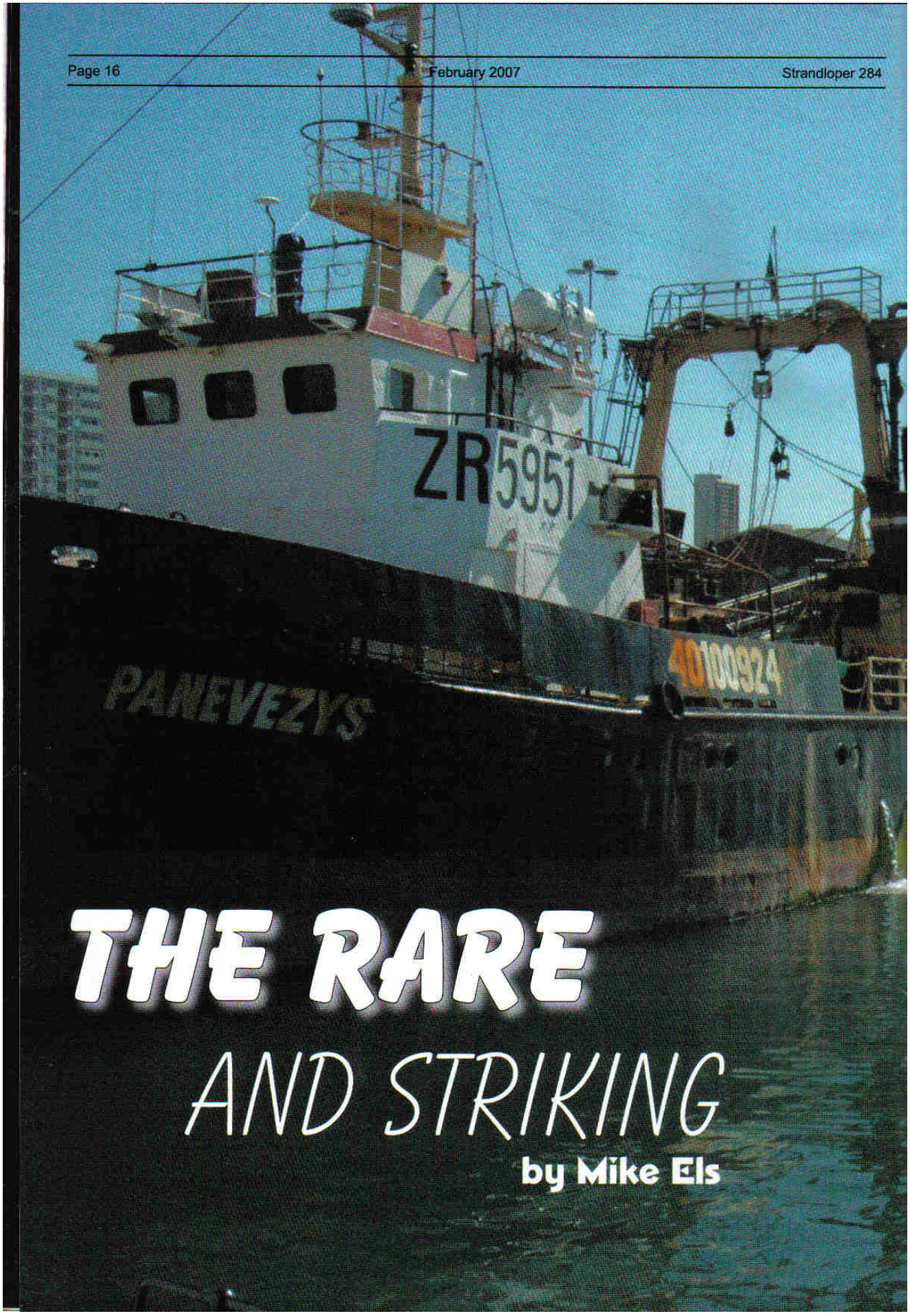
Marginella geraldi
Lussi, 2006

Colour pattern striped, mottled or banded. Animal milky white, eyes black, circled with yellow, tentacles with yellow dashes, siphon with white dashes. Average length 13 mm.

Distribution and habitat:
Off KwaZulu-Natal in 20 – 35m.

Note: Does not normally wash ashore. For further details see Malacologia No. 52 (2006).

Photo courtesy: M. Lussi



THE RARE AND STRIKING

by Mike Els

Two Forms of a Striking and Rare South African species - *Fasciolaria thersites* Reeve, 1847

After settling in Port Elizabeth from Cape Town in 1995, I found a fascinating range of deep water shells available from the commercial fishing boats, the variety being often very different to those found from the Cape Town area. One of the more striking species was an unusual, pure white Fasciolaria-type shell which I could only find in Deidre Richards where it was listed as number 300, "*Fasciolaria wattersae* Kilburn 1974." This shell did not correlate well with my understanding of *F. wattersae* and a check through the literature led me to an article by Dr R. N. Kilburn in The Nautilus 107(1):24-28, 1993 titled "Rediscovery of *Turbinella thersites* Reeve,1847, with notes on its taxonomic position".

In this fascinating article ,which includes scientific detective work (!), Dr Kilburn traces the history of this little-known species from its description until the early 1990's.The type specimen of *Turbinella thersites* Reeve 1847 was based on a single specimen originally in the collection of Captain Sir Edward Belcher and was purportedly from China. The Genus was the topic of much speculation and was assigned variously to *Fasciolaria*, Lamarck 1801(family Fasciolariidae) or *Tudicla* Roding, 1798 (Turbinellidae), whereas Tryon placed it within the genus *Latirus* Montfort,1810 (=*Plicatella* Swainson,1840). Kobelt (1874) listed it as *Turbinella* (*Plicatella*) *thersites*. In 1942, in a paper on Chinese gastropods Yen showed a photograph of the holotype with the name *Tudicla thersites* and quoted the given (i.e.Chinese) locality without comment! Thereafter there was no further literature on this species (i.e. almost 51 years!) until Dr Kilburns article.

He notes the specimen of *Turbinella thersites* was most likely collected during the cruises of H.M.S. Sulphur (1836-1842) or H.M.S. Samarang (1843-1846), both of which were captained by Belcher and both had dredged on the Agulhas Bank. Confusion of Belcher material from these voyages is apparently not unknown. A direct example given in the article is of *Turritella declivis* Adams&Reeve 1850(a distinctive Agulhas Bank South African endemic) was originally described as being dredged by H.M.S. Samarang under Belcher in the China Sea.

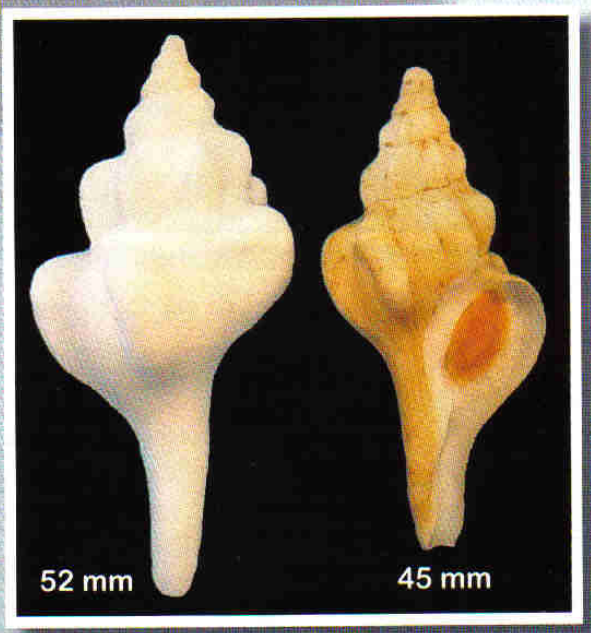
This trend continues in the next phase documented by Kilburn.The second known example was collected in 1962 but remained unrecognized until it was sent to Dr Kilburn in 1986 by J.H. McClean of the Los Angeles County Museum. The shell was from the collection of the late Franz Steiner and was labeled as being collected by himself in dredged sand from Nacala, Mozambique. Kilburn notes that in 1962 or1963 he was personally told by Steiner (then a radio operator in the merchant navy) that whilst on the Nacala route he often received trawled shells in barrels of preservative from a contact in Cape Town. With the above background and with further material from R Le Maitre of Cape Town as well as the Natal Museum, Kilburn proceeds to transfer the species from family Turbinellidae to family Fasciolariidae.

In my experience the species remains rare and quality large specimens extremely rare. I have noted two readily recognizeable forms:

1) Strongly axially ribbed form

2) Smooth form with reduced or completely absent ribbing. Intermediate forms occur.

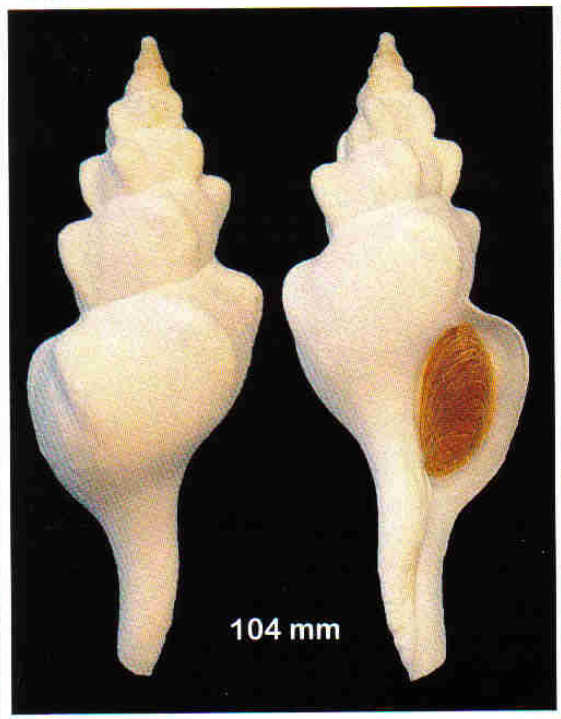
The majority of specimens are found in lobster traps placed on deep reef areas (probably 150m plus) and are strongly sculptured and usually juvenile (<10mm – 6cm). Very rarely an adult specimen occurs from



Typical examples of Fasciolaria thersites with the colours ranging from white to light brown.

this source. The lips are almost invariably chipped, since they are usually paper thin. Mature lips occur but are minimally thickened. Trawlers using nets over soft bottom or possibly flat silty reef areas occasionally produce specimens- these are usually larger and almost always have markedly reduced sculpture, often only being recognizeable as thersites by the strong ribbing on the early whorls.

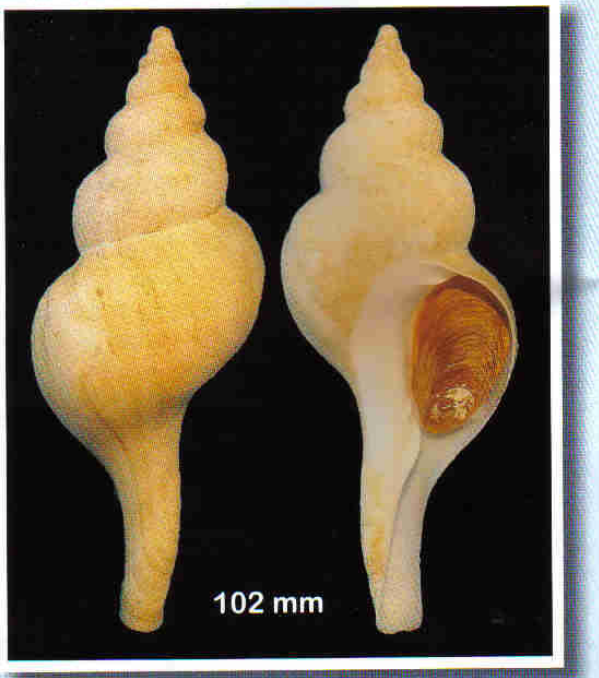
The penultimate whorls are often completely smooth or with minimal weak ribbing. The larger size of the



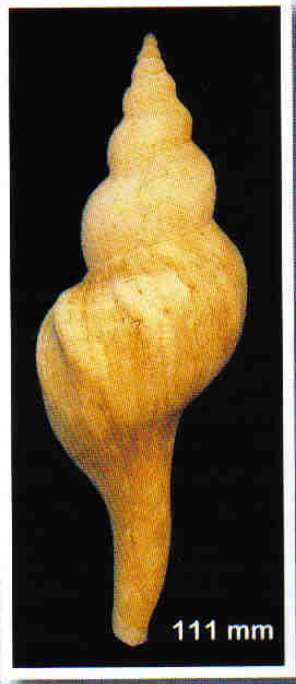
The "ribbed form" with the strong ribs clearly visible.

trawled specimens is most likely due to the smaller shells falling through the large mesh of the fishing nets, but the reduced sculpture may be due to ecological variation in the soft bottom habitat.

The shells are pure white. Periostracum is translucent, thin, yellowish – green when fresh, shells lightweight and thin for size. Even a fully mature shell retains a relatively thin and fragile lip by Fasciolarid standards. The largest smooth form specimen in my collection is 111 mm and strongly sculptured form 104 mm.



(Top) The "smooth form" with the no ribbing.



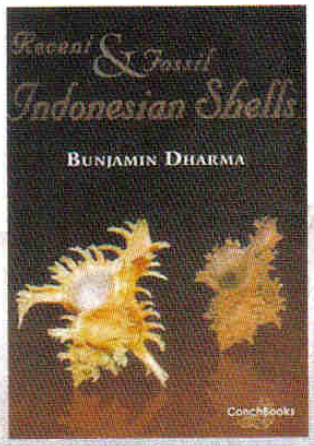
The range is poorly understood at this stage, but certainly ranges from off Algoa Bay far southwards onto the central (and most likely southern) Agulhas Bank.

The interstate form.

References:

Rediscovery of *Turbinella thersites* Reeve, 1847, with Notes on its Taxonomic Position (Gastropoda: Fasciolariidae) – RN Kilburn-The Nautilus 107(1):24-28,1993.

Book REVIEWS



Recent & Fossil Indonesian Shells

By Bunjamin Dharma
Published 2005, 424pp.

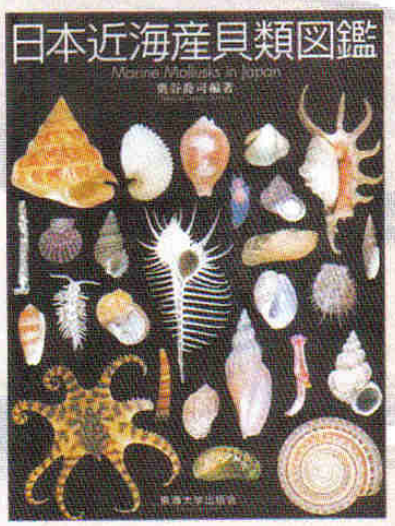
The first section of the book deals with the Geography and distribution of Marine and Terrestrial Molluscs, with a chapter on abnormalities with colored illustrations. This is followed by the main section consisting of Recent Plates with colored photos of 1,440 Marine species and over 500 Terrestrial species. Each illustrated species is accompanied with a short description of size and the locations where they have been found. The illustrations are excellent and each page shows the relations to actual size.

Regrettably the genuses and species are not arranged in alphabetical order, which makes finding each species more time consuming.

The last section of the book is devoted to Indonesian fossils, and contains more than 700 fossil species illustrated in black and white. The book concludes with a systematic classification of the species presented.

We have to congratulate the author for the first publication in English of an extensive presentation of the Indonesian Molluscs, whom all interested in the Indo-Pacific Region will find of great interest.

Zvi Orlin



Marine Mollusks in Japan

Edited by Takashi Okutani
Tokai University Press, 2000
1173pp

Published in Japanese and English, it was drawn up by 11 authors and contains 5106 species, the most in a single volume of which I know. It is not only illustrated by excellent colored photographs of the shells, but on most pages are added a few colored prints of live specimens, stating at what depth they were spotted.

The book starts with a short Format and Terminology of the different Classes of Mollusks, followed by a map of Japan and its Islands, with the localities where shells were found, shown for easy reference.

The plates of photos often show both sides of the shells, which is most important to help us in our identifications, and on the page opposite, the text describing the salient features of each species, and the depth at which it was found. The species of each family are numbered consecutively, so we know how many species are found in each one; this is most useful information. The habitat is usually also noted.

Many subgenuses have been elevated to genus level, to which some Malacologists may not agree.

To the best of my knowledge, the 5106 species found in Japan, are the largest number of marine mollusks listed from any one single country, and we should congratulate all the eminent malacologists who participated in this outstanding publication.

Its value is not only to students of Japanese mollusks, but is extremely valuable to all Conchologists and Malacologists interested in the Indo-Pacific.

I strongly recommend them to avail themselves of this fascinating book, providing of course they can afford it. We owe a debt of heartfelt thanks to the authors, and to Takashi Okutani especially, for their fine contribution to our knowledge, not only of Japanese shells, but those of the entire Indo-Pacific.

Zvi Orlin
zviorlin@actcom.co.il

NOTES ON...

Cypraea citrina

" Spectacularly beautiful ...
... diverse and elusive. "

BY ROY AIKEN

Picture: Valda Fraser

A shining, fresh *Cypraea citrina* has long been regarded as a prize for cowrie fans and collectors of S.A. shells alike.

Although initially known in most collections from more faded specimens found on the beaches of Natal and as far south as Jeffrey's Bay, this species has been taken regularly over the years in wonderful condition from the stomach contents of the slinger, ***Chrysoblephus puniceus***. In recent times, Danny Spengler has tapped into this 'ex pisce' world, which has yielded a stunning array of these beauties.

We would like to demonstrate what has made this elusive species so interesting, namely its variation in shape, differing size of mature shells, colour variations and the different patterns of dorsal spotting. ***Fig. 1*** depicts an ex-pisce beauty, slightly rostrate with classic pattern.

They furthermore possess a feature not often seen in *Cypraeidae*, which is the pitted or depressed margins, most prominent on the labral side. Their mystique is compounded by the fact that there is good evidence to believe that they hybridize with two other cowrie species! – *C. marginalis* and *C. helvola*.

Many references to their endemic nature have unfortunately fallen away due to the discovery of a population off the south of Madagascar distinguished by Felix Lorenz at subspecies level as *Erosaria citrina dauphinensis*.

The southern African population can be broken into:

- **A lightweight, narrower form.** This shell is often smaller (down to only 18mm) and distinctly elongate. These shells are found in deeper waters, somewhere between 30m and 100m, where the slinger are caught. (***Fig. 2***)
- **A broad, bulbous form.** Shell associated more with shallow water environments. The more littoral specimens seem to be heavier and in some cases have humped dorsums. These have been referred to in the past as '*citriniformis*' They can reach 31mm. (WRS in 2004 was 30,8mm) ***Fig. 3*** and ***Fig. 4*** were beached at Park Ryne.

Mature shells often have an elevated spire, making them look somewhat juvenile, and a broad mantle line. (***Fig. 5***)

One of the most attractive features is the dorsal pattern of defined white spots of differing size on a brown-orange background. The fresh deep colour is known to fade over time. (pers. comm. The late Graham J. Melvin) (***Fig. 6, 7 and 8***)

There is sometimes a sporadic distribution of larger less defined brown (rarely ocellate) spots that changes the dorsal appearance. ***(Fig. 9)***

Some shells have a distinct sage-green background with fewer, suffused white spots. (***Fig. 10***)

The scuba material has been found on yellow gorgonians at 30 metres, together with *C. marginalis* (pers. comm: M. Wallace)

C. citrina is also characterized by a dark brown patch that stretches along the base. (***Fig. 11***)

It has for some time been speculated that *C. citrina* may hybridize with *C. marginalis*. Note the dorsal ocellations as well as the pitted margins of *C. marginalis*. (***Fig. 12***)

Figure 13 could be *Cypraea "citrinalis?!"* Note the common dorsal pattern and the tell-tale mauve lines radiating outwards on a light orange base.

Dredged off central Natal, one finds representatives of the hybrid *C. citrina x C. helvola*. The shell has the *C. helvola* shape, no dark mark on the base and common dorsal pattern. (***Fig. 14***)

The sight of a living *C. citrina* is still a rare and wonderful occasion.

Fig. 1
Ex-pisce, slightly rostrate

Fig. 2
Ex-pisces, Richards Bay

Fig. 3
Beached at Park Rynie

Fig. 4
Beached at Park Rynie

Fig. 5

Fig. 6
ex pisce – Zululand

Fig. 7
Dredged off Durban

Fig. 8
ex pisces – Zululand

Fig. 9
ex pisces – Richards Bay

Fig. 10
Scuba @ 38 metres,
southern Natal

Fig. 11
ex pisces

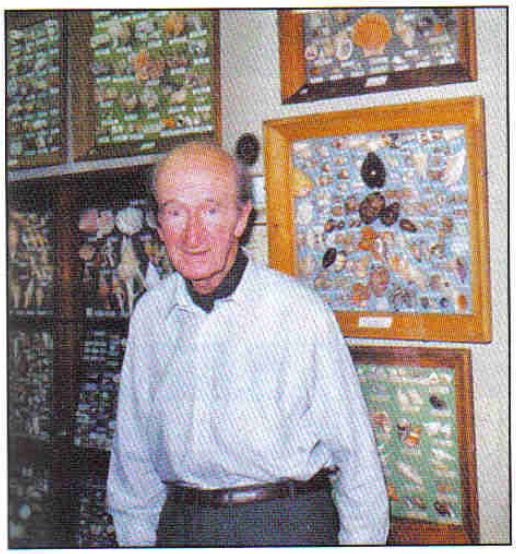
Fig. 12
Dived off Sodwana, Natal

Fig. 13

Fig. 14
Dredged off central Natal

A Tribute to
Mr N E M Newman (1914 -2006)

by RMT and members of the Border Shell Club



There was Noggs - upon the beach...
The rising tide within his reach
He stood - majestic - on the sand
And raised one ancient shingled hand!
The sun that day did never set
Nor even were his tackies wet
Because it's absolutely true man
Time and tide wait for Newman!

Neville Edwin Miller Newman was known to family, friends and conchological colleagues as Noggs. It was a name acquired at an early age, taken from a Dickensian character, Newmann Noggs, but not dropped in later life "Because", Noggs told me, " I have the nose for it"!

He also had a nose for finding special shells. Anyone who had the joy of collecting with him would be amazed at his leisurely collecting style and the casual way in which he produced his rare finds at the end of the day. No kneeling and creeping and bending for Noggs. He would fossick round the rock pools, a walking stick fitted with a large spoon at the ready to scoop up the species that caught his eye. Noggs did not just go for beauty and rarity but took pleasure from each specimen he collected: the deep lustre of a *Patella oculus*, the design symmetry of a *Siphonaria capensis*, the pearly sheen of a *Cellana capensis* or the marvellous markings on a *Nerita albicilla*. At the end of a collecting session when we all gathered to inspect each other's finds the "Shell of the Day" would be declared by popular vote and a prize shell, provided by Noggs, awarded to the finder.

In this and many other ways Noggs breathed life into the Border Shell Club. He was our shell identifier-in-chief and arbiter in many disputes. He provided transport for field trips — if one of us would drive his capacious car.

It was he who created the symbiotic relationship between the Club and the East London Museum whereby the museum offered logistic support to club activities and members contributed specimens for a comprehensive systematic museum exhibit on the Shells of the Border coast (from the Fish River to the Kei). It was he who promoted the growth, and use of our club reference library and it was he who often led the roundtable discussions on shell families at our monthly meetings, his last a provocative talk on Cones and their taxonomy that challenged us to re-visit our specimens of Conus and think again.

His enthusiasm for his hobby was equalled by his enthusiasm for the *Conchological Society of Southern Africa*, (CSSA) where he has held office as Secretary, Treasurer, and Vice-President. More important, in the annals of conchology his name is associated with *Ocenebra newmani* and with *Gulella newmani*. His lasting memorial, however, is the Newman shell collection which he donated to the East London Museum.

This is no ordinary collection. Noggs' shells were displayed with their labels in deep picture frames and arranged in patterns, often by locality. In this way they were always on view to be admired. To most conchologists this was an unconventional approach to arrangement of a valuable scientific collection but no one could convince him otherwise. In general, the museum has respected the collector's philosophy so that the framed miniature masterpieces are available for all to see and enjoy the way Noggs wanted them to be.

For those of us in the club Noggs was an inspiration. We and our collections have been enriched by our association with him. We miss him and trust that he will rest in peace knowing that his legacy to all conchologists especially those in South Africa lives on.

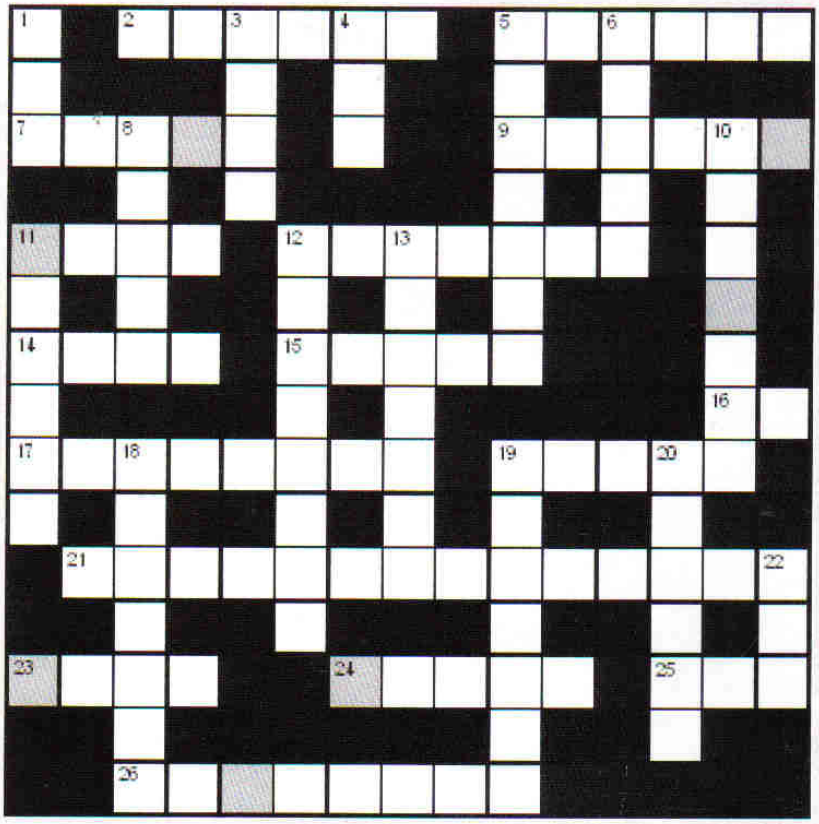
Shell Puzzle No. 3

Across

2 A skirt-like structure secreting the shell (6)
5 Holds Chiton plates in place (6)
7 A common mitre (5)
9 for cleaning shells (6)
11 A British museum housing a large mollusc collection. (4)
12 Venus ear (7)
14 A South African museum (4)
15 The shiny side (5)
16 A subspecie of nakamigawai (2)
17 Lady cowry with small black streaks (8)
19 Very deep indeed (5)
21 The snake head cowry (14)
23 Around it goes (4)
24 The pointy side (5)
25 The edge (3)
26 Ear-shaped (8)

Down

1 humans have them as well (3)
3 A tide (4)
4 Good tide to search for shells (3)
5 Very swollen (7)
6 Author of *Xenophora pallidula* (5)
8 Fish eating mollusk genus (5)
10 This Turbo has a relative in Natal (7)
11 shipworm (6)
12 With concentric rings (8)
13 Arched like a bow (7)
18 Large Natal cowry (7)
19 A white "sundial" (7)
20 junction of two whorls (6)
22 A South African museum (3)



Win

1st Prize

A wonderful selection of essential oil products, distributed by *ESCENTIA PRODUCTS*

2nd Prize

A selection of trawled shells from Beira

Instructions

1. Complete the crossword puzzle.
2. Arrange the letters in the shaded blocks to form the name of a famous conchologist.
3. Put your one word answer on a post card with your name and address and send to Shell Puzzle No 3, P.O. Box 1855, Rooihuiskraal, 0154 or alternatively you can email the answer to alwyn@deark.co.za
4. The first two correct entries drawn will each receive a prize.
5. The decision of the Committee will be final.
6. The winners will be announced in the next Strandloper.
7. The closing date is 15th July 2007

ANSWER: SHELL PUZZLE 2

L. Col. WH Turton (1856-1939)
Turton was the first collector to concentrate on micro-molluscs, inevitably discovering a large number of new species. Known for his publication "*The Marine Shells of Port Alfred, South Africa*" published in 1932.

WINNER: SHELL PUZZLE 2

1st Prize: R Kruiswyk (Pretoria Group)
2nd Prize: Marius Beltman