

## PRESIDENTIAL REPORT FOR 1989/90

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 (or overlooked in previous reports!)

REID, D.G. 1989. The comparative morphology, phylogeny and evolution of the gastropod family Littorinidae. *Phil. Trans. Roy. Soc. London* 324 (1220): 1-110.

This paper presents a major reclassification of species and genera of the Littorinidae, based on extensive anatomical research. As far as our species are concerned, only *L. saxatilis* (Olivi, 1792) remains in the genus *Littorina*, the rest being now referred to the genera *Littoraria* or *Nodilittorina*, viz:

*Littoraria (Littoraria) glabrata* (Philippi, 1846) (synonym *kraussi* Rosewater, 1970); *L. (L.) mauritiana* (Lamarck, 1822); *L. (L.) undulata* (Gray, 1839). *Littoraria (Protolittoraria) pintado* (Wood, 1828). *Littoraria (Littorinopsis) intermedia* (Philippi, 1846); *L. (L.) scabra* (Linne, 1758); *L. (L.) subvittata* Reid, 1986. *Nodilittorina (Nodilittorina) millegrana* (Philippi, 1848); *N. (N.) natalensis* (Philippi, 1847). *Nodilittorina (Echinolittorina) punctata* (Gmelin, 1791); *N. (?E.) africana* (Philippi, 1847); *N. (?E.) knysnaensis* (Philippi, 1847).

REID, D.G. 1989. Systematic revision of the Recent species of *Peasiella* Nevill, 1885, with notes on the fossil species. *Nautilus* 103 (2): 43-69.

*Peasiella* contains small to tiny, top-shaped species, easily mistaken in the field for trochids. On the basis of Natal Museum specimens, Reid records one species, *Peasiella infracostata*

(Issel, 1869), from Natal and Transkei (as far south as Port Alfred), and another, *P. isseli* (Semper in Issel, 1869) from as far south as the Bazaruto area of Mozambique.

HARASEWYCH, M.G., 1989. A new species of *Coluzea* (Gastropoda: Turbinellidae) from off southeastern Africa. *Nautilus* 103 (2): 70-72.

*Coluzea juliae* is described from 548-660 m off northern Natal and southern Mozambique (the author obviously accepts *Coluzea* as a valid genus, distinct from *Columbarium*). This is a strongly corded species sometimes obtained from the trawlers. Harasewych compares it with *eastwoodae*, but does not comment on specimens of the latter which may show abnormally strong spiral sculpture!

HERBERT, D.G., 1989. *Pagodatrachus*, a new genus for *Minolia variabilis* H. Adams, 1873 (Gastropoda: Trochidae). *J. moll. Stud.* 55: 365-372.

*Pagodatrachus variabilis* is a tiny, high-spired trochid that has been dredged off Zululand and Natal in 40-100 m. It is compared with several superficially similar but unrelated species from the tropical Indo-Pacific.

HERBERT, D.G. 1989. A remarkable new species of *Diodora* Gray, 1821, from south-east Africa (Mollusca: Gastropoda: Fissurellidae). *Ann. Natal Mus.* 30: 173-176.

*Diodora procurva*, from 120-510 m off Zululand to Transkei, is one of the largest members of the genus known (length 31.4 mm).

HOUART, R. 1989. Description of two new species of the genus *Chicoreus* from southern Africa. *Veliger* 32 (1): 60-63.

*Chicoreus zululandensis*, dredged by

the Natal Museum in 65-68 m off northern Zululand, and *C. fosterorum*, based on live examples dived on Aliwal Shoal in 50 m, and worn shells from Mzamba, are described. (NB: the Natal Museum badly needs a fresh specimen of *C. fosterorum*!)

KILBURN, R.N. 1989. Notes on *Ptychobela* and *Brachytoma*, with the description of a new species from Mozambique (Mollusca: Gastropoda: Turridae). *Ann. Natal Mus.* 30: 185-196.

The question of the type species of *Ptychobela* is discussed, and a new species, *Ptychobela opisthocetus* is described from Mozambique.

KILBURN, R.N. 1989. A new genus and species of Pseudolivinae, with a note on the status of *Sylvanocochlis* Melvill, 1903 (Mollusca: Gastropoda: Olividae). *Ann. Natal Mus.* 30: 177-184.

*Sylvanocochlis* is regarded as a synonym of *Pseudoliva*, and a new genus and species, *Naudoliva caitlinae*, are described from off the lower Transkei.

LORENZ, F. 1989. A new *Pteropurpura* from South Africa. *La Conchiglia* 21 (233-236): 49-51.

*Pteropurpura debruini* from 38-41 m in Hout Bay is described. I have not examined material and cannot comment on whether it is distinct from *P. capensis*.

SIRGEL, W.F. 1989. A new species of Achatinidae from southern Africa. *Ann. Natal Mus.* 30: 197-210.

*Archachatina (Tholachatina) marinae* is described from the Riversdale district of the Cape.

# TRAWLING

by Olive Peel

**Dedicated to a young skipper who died tragically on Trawler's Wharf, also known as 'Shooter's Wharf' - DANZEL SHOOTER**

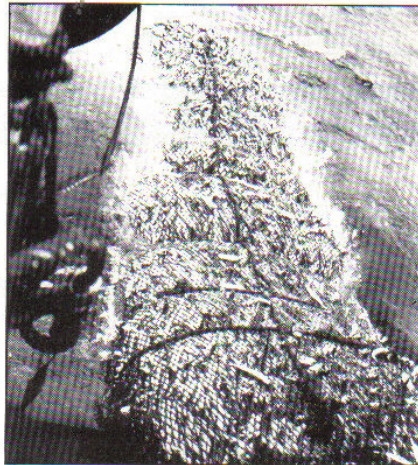
The first known trawler to survey South African waters was the steam trawler *Pieter Faure* of 176 tonnes which was built in Glasgow in 1897 upon the recommendation of the Cape Government Marine Biologist, Dr JDF Gilchrist. Dr Gilchrist carried out a detailed survey of the Cape waters and later Natal waters extending from the Cape to Cape Vidal in Zululand.

Dr Gilchrist said of Natal waters: "The coast of Natal is not a promising one for trawling operations". "...no great area of water, less than 100 fathoms in depth, is to be found on the coast, and most of the soundings showed rock, or ground unsuitable for trawling". His records showed 1 new genus, 63 new species and 42 new records of molluscs, with 5 new records of corals. (Ann. Natal Mus. Vol 16, pages 9-16, June 1964). Although this vessel only trawled to 100 fathoms, it did carry out a few trawls off Natal up to 440 fathoms. It was noted during these trawls that many of the shells appeared to be similar to species from the Indo Pacific.

The *Pieter Faure* ceased operations in 1907 because of financial difficulties and no further surveying was carried out until 1920 with the S.S. 'Pickle'. This vessel was replaced by the 'Africana' which was responsible for bringing up the first *Pleurotomaria* recorded in South African waters and was trawled approximately 55 kms east of Durban in about 250 fathoms.

In recent years commercial trawlers have been trawling in deeper waters, bringing up an abundance of mollusca including many new finds. *Conus visagenus* Kilburn, 1974, has been trawled off Durban to the east in 180 fathoms whereas *Conus typhon* Kilburn, 1975, on the other hand comes from shallower water. *Cypraea cruickshanki* Kilburn, 1972, is probably the deepest trawled of all *Cypraea* in southern Africa and endemic to Natal, being found in 200 - 250 fathoms.

The trawlers in Natal are owned mainly by companies but there are a few which



The catch is ready to be brought up onto the dock.

are privately owned. These trawlers cost around a million rand each and the upkeep - salaries, diesel etc for a 40-day trip is about R60 000.

For a trawler weighing under 100 tonnes the skipper has to have a Grade 4 certificate of competency and he must have under his control a mate, an engineer and a crew of between 14-21. They are all experienced men in trawling and occasionally a new officer is employed and trained. No skipper may take out a trawler unless he is fully trained and qualified as the risks are very high. He has to be well trained so that he knows exactly where to trawl for if he should hit a rock the damage could be extensive, and costly - in the region of R15 000 to R20 000 and he would never be asked to captain a trawler again. For a trawler of over 100 tonnes, the Skipper needs a Grade 1 or 2 certificate. A Grade 3 certificate is required for a mate, then there is also a bosun, a qualified engineer and second engineer, plus the ordinary members of the crew. Usually, if a skipper comes from elsewhere he must first act as a mate to gain experience as to the availability of the fishing grounds. The officers are paid by the trip in Natal for some companies, plus a commission on the whole catch, but where large companies are concerned the sea-going officers are employed

with the usual company benefits plus commission. Any shells which are found amongst the catch are taken by the crew as a bonus and these they sell to the eager shell collectors waiting on the wharf.

Each sailing is regular unless there is some reason for a delay such as a breakdown or if engine parts have to be flown out from overseas. For every ten days at sea the crew is given two shore days leave. The men are notified at the end of each trip as to the date of the next sailing. Whether the tide is in or out is of no significance to the trawler's departure. Each sailing lasts between 10 - 40 days and the destination is known before sailing. If the distance is short between destinations, the nets are dragged whilst moving from one destination to another. The trawler steams with the wind to a given locality and then stays there for about four hours, brings up the net, and the catch is lowered onto the deck for sorting. If the trawler is going further afield it steams straight there and does not trawl on the way.

## NATAL

Trawling takes place on the Natal coast, south to about twelve miles and north as far as the Natal - Mozambique border and the trawling is usually carried out



The catch is lowered onto the deck.

in about 180 - 280 fathoms. Fishing ground No 1 as it is known is where line-fishing takes place and divers also frequent this spot, but no trawling is done there. The 'Gate' as it is known, was a dumping ground for wrecks and the other type of shells, namely the firing type used by the Navy and Army for target practising. This is also not a trawling ground. The 'Gate' mentioned by some trawlermen as to locality could also refer to the entrance to the Durban Harbour.



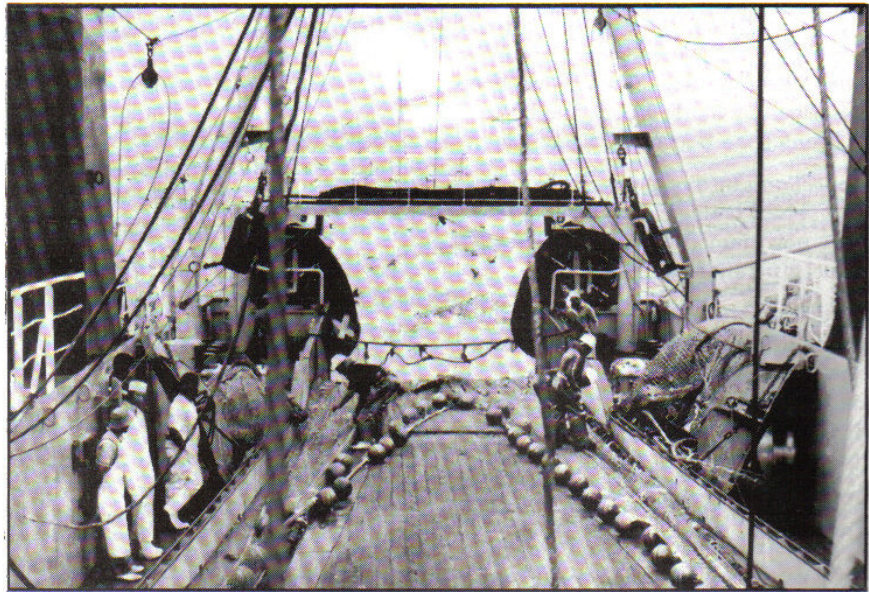
A small trawler leaves for its trip with the net ready on the stern and the steel doors ready to be lowered.

Photo: Aubrey Shooter

Crabs, crayfish and shrimps are trawled in sand and mud at about 260 fathoms and crayfish in shallower water at about 160 fathoms in sand and mud. The Green Prawn is trawled 30 kms from the Tugela River Mouth in about 30 - 120 fathoms.

#### CAPE

In the Cape, larger trawlers are used, namely between 400 and 1600 tonnes each. The vessels are at sea for between 7 and 40 days and trawl at depths of up to 350 fathoms and when full can land as much as 550 tonnes of fish, and of course numerous shells come up in the nets. The nets are towed at about 4 knots on the bottom of the ocean bed whilst moving from one fishing ground to another. These trawlers range in size up to 90 metres in length and carry a crew of about 80 who are employed on a full-time basis. For fishing in shallow water traps are used and also rod and reel. Smaller fishing boats are used for



On a large Cape Trawler the net is ready to be lowered with the steel doors in view

Photo: Irvin & Johnson

this latter purpose. In Natal traps are not used.

#### METHOD

The gear is ready to 'shoot away' (let down) before the trawler arrives at the fishing ground. The skipper decides where the fishing will take place as he is responsible for any mishaps. The trawling net is attached to two steel doors each weighing about 250 kilograms which are let down and pulled open at an angle, throwing out the net to about three times the size of the stern of the vessel. This procedure takes place whilst the trawler is slowly steaming ahead so that the net does not become tangled.

The winch which is exceedingly heavy and housed above the deck, is hydraulically or belt-driven and this lowers and raises the steel doors and net. The trawlers have their own refrigeration systems as the catch is sorted on the vessel.

There is tremendous demand locally and overseas for the many exotic trawled shells from South African waters and we collectors owe these trawlermen a debt of gratitude for supplying us with these many beautiful and much sought after shells.

#### ACKNOWLEDGEMENTS

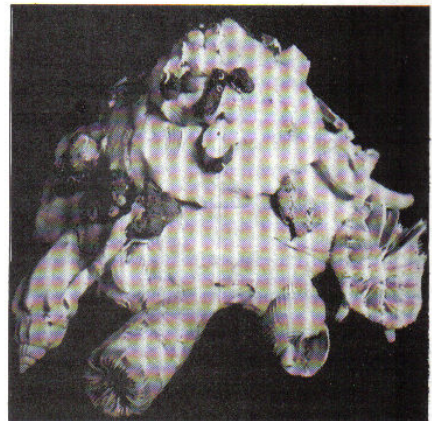
I thank Mr T Reddell, Industrial Engineering Manager of Irvin and Johnson Ltd, Cape Town, for his

invaluable help.

I also extend my thanks to Mr Aubrey Shooter for spending time with me answering my many questions in order that I could research this article and I especially thank Mrs Shooter for bringing out photographs which must have brought back many painful memories for her.

#### REFERENCE

The work of the S.S. *Pieter Faure* in Natal waters, with special reference to the Crustacea and Mollusca; with descriptions of new species of Mollusca from Natal by K H Barnard, Ann. Natal Mus. Vol 16, Pages 9-29, Pietermaritzburg, June 1964.



*Xenophora pallidula*, Reeve 1843. One of the many shells trawled in Natal waters

### A FEW NEW FINDS

The following new finds have been described in *Gloria Maris*, the bulletin of the Belgian Society for Conchology.

*Cancellaria* in the genus *Scalptia* from Papua New Guinea: *Scalptia laingensis* spec nov. named by Andre Verhecken of Belgium after Laing Island.

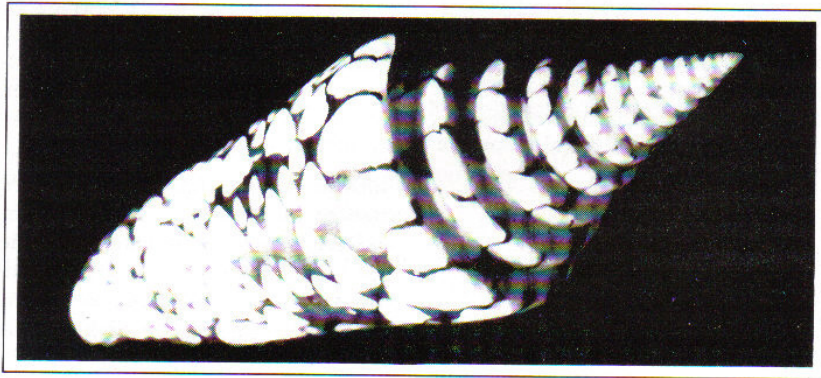
*Conus lemuriensis* spec nov. from the island of Reunion named by Edward Wils and A Delsaerdt. This species is related to *Conus milneedwardsi* Jousseaume, 1894.

(The above two new species are described in *GLORIA MARIS* Vol 28, 1989).

*Amaea (Acrilla) alistairi* spec nov. from Mactan Island in the Philippines and named after Mr Alistair Moncur by HP Wagner. The holotype specimen is housed in the Zoologisch Museum in Amsterdam.

*Costellaria wilsii* spec nov. a new vexillum from the Red Sea named by Jan A Buitjse and Henk Dekker of the Netherlands after Mr Edward Wils of Belgium.

*Conus visseri* spec nov. from Phuket Island named by A Delsaerdt of Belgium after JS de Visser. This new cone resembles *Conus catus* Hwass, 1792.



*Conus lemuriensis* n. sp. — The first photo (A. Gaspard), showing the spire. "Gloria Maris Vol 28 - 1989"

### TRIBUTE TO HELENE BOSWELL

by Barbara Fouche

Helene Boswell died peacefully at her home in Ashburton on Friday evening, the 15th June, 1990.

The Society has lost one of its greatest members, for Helene was indirectly responsible for the beginnings of the Conchological Society of Southern Africa. A Founder Member and Honorary Life Member of the Society, she started shell collecting 41 years ago and in her lifetime amassed three large collections. It was stated in books of the 1950's and 1960's that she had the largest private collection in Southern Africa.

She also had an outstanding collection of old conchological books. She was well travelled, an animal lover, an excellent seamstress and talented in creative embroidery.

Helene had many shells named after her:

*Latiaxis kawamurai helenae* Azuma, 1973; *Bathytoma helenae* Kilburn, 1974; *Metula boswellae* Kilburn, 1975; *Trivirostra boswellae* Cate, 1979; *Volutocorbis boswellae* Rehder, 1969; *Pirenella boswellae* Barnard, 1963; *Turbo boswellae* Barnard, 1969.

I will always remember Helene for her sincere friendship, charm and stimulating hospitality.

Since the above was written, Helene's husband, Stanley, passed away at Grey's Hospital, Pietermaritzburg on August 14th.

Our sympathies are extended to their sons Brian and Digby and their families. May they rest in peace.

### WELCOME HOME

What a relief it is to have Sandy Muller, one of our members and her family safely back home again after being kept captive in Mozambique after their yacht ran aground in terrorist waters. They were very lucky indeed to have been well looked after during their five weeks in captivity and we welcome you all back home again Sandy. We are sorry though that you lost your yacht, so here's wishing you guys luck building the next one!

### NEW BOOKS

For those members interested in land shells a most exciting new book is just about to hit the bookstores shelves. *COMPENDIUM OF LAND SHELLS* by Dr R. Tucker Abbott is an authoritative guide to over 2 000 terrestrial shells of the world, in colour. This book is a must for anyone interested in terrestrial, air-breathing shells from all over the world. 80 families are represented, all illustrated in colour, with full data and description of shells. The book will sell for \$56, plus \$7 postage and may be ordered from Mal de Mer Enterprises, PO Box 482, West Hempstead, NY 11552, USA.

For anyone interested in freshwater snails, there is a new book *NORTH AMERICAN FRESHWATER SNAILS* by J.B. Burch which covers 500 species of North American freshwater snails.

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# CONCHOLOGICAL REMINISCENCES

by DH Kennelly

(Circular No 75, page 5, June 1966)

It is curious, but none-the-less true, that a writer will describe a shell new to science, but beyond recording the name of the finder - if known - no details as to how the new shell came to light are ever mentioned.

Perhaps I have been more lucky than I realized, for I became rather intimately involved with the discovery of three shells in South African waters. One was new to science, and the other two were extensions of the known range to our coast.

One day in April, 1939, I visited the Port Elizabeth Museum, then housed in the old building in Bird Street and found the Director, Dr JA Pringle, very busy with two or three very large milk cans. On enquiry, I was informed that arrangements had been made with the PE branch of Irvine and Johnson, to obtain specimens of deep sea fish required for the Museum collection. The milk cans contained the usual mixture of formalin and water, in which the fish would be preserved until the return of the trawler to port.

I suggested to Dr Pringle that he should ask for specimens of deep sea shells to be included with the fish. The worthy Director replied he had overlooked the

fact that shells would come up with the trawl in addition to fish, but, as the idea was good, he would take the necessary steps.

About three weeks later I again visited the museum and we went through the shells received from the trawlers. Dr Pringle said that he had never seen any like them. We went through all the then available literature, without a definite result. I told Dr Pringle that in my opinion the one lot of shells - some eight or nine in number, were volutes, and in all probability a new find. Further, that as one of these shells had the animal inside the shell, it would considerably assist further investigation.

The other shells were white in colour, some retaining a certain amount of hairy periostracum. I could not give a more precise name beyond saying these were probably a new species of *Buccinum*, which should also be further investigated. The shells were forwarded to the late J.R. le B. Tomlin of London, then working extensively on Mollusca at the British Museum (Natural History).

Months afterwards, towards the end of 1939 - I think the Second World War had already started - Dr Pringle

received a letter from Mr Tomlin about these shells, the contents being very interesting. In this letter Mr Tomlin said the one lot belonged to the Volutidae, was a new discovery, and would be named *Afrivoluta pringlei*. The other shells were also new and the name would be *Fusitriton algoensis*. Naturally Dr Pringle was tremendously pleased, and I the same, for my tentative identification of the one as being a volute proved to be correct, while the *Fusitriton* later proved to be a synonym of *F. murrayi* Smith, now placed under *Argobuccinum*, so I was very nearly correct in saying that the shells I saw might belong to *Buccinum*. This proved that the range of *F. murrayi* extended from the Cape Peninsula to off Cape Recife.

World War Two upset everything, and Tomlin's report on these two species was not published until 1947.

(Note from Editor: It was also noted that Mrs Helene Boswell brought to Mr Kennelly's notice several specimens of shells trawled off Zululand and they proved to be *Gyrina gigantea* - later known as *Ranella olearium* Linne. It was the first time this shell was found in South African waters.

## STARFISH THE TRUE CULPRITS?

by CM Connolly

(Circular No. 75, June 1966)

We know that the starfish in False Bay feed on most molluscs, but does he use strength or poison? After partially smothering his victim, and possibly using some fluid that is an irritant, causing swelling and paralysis, it would be quite simple. The greatest predator of bivalves in my field observations has been the octopus. We know the octopus uses poison to paralyse his victims. Shells are never broken, which would happen in frail bivalves if the outside strength and the inside strength were greater than the strength of the shell structure.

The only two boring molluscs I have ever observed feeding directly through a hole on another mollusc are the *Natica genuana* and the *Thais cingulata*. *Thais dubia*, *Thais capensis*, *Fasciolaria lugubris*, *Vexillum* and *Marginella rosea*, all use poison to paralyse molluscs, and the swelling caused makes it a simple matter for them to feed on the living Turbos and Patellas etc. I have twice observed our big-mouthed Sucker Bully swallow *Patella oculus*. Red Roman too feed on molluscs.

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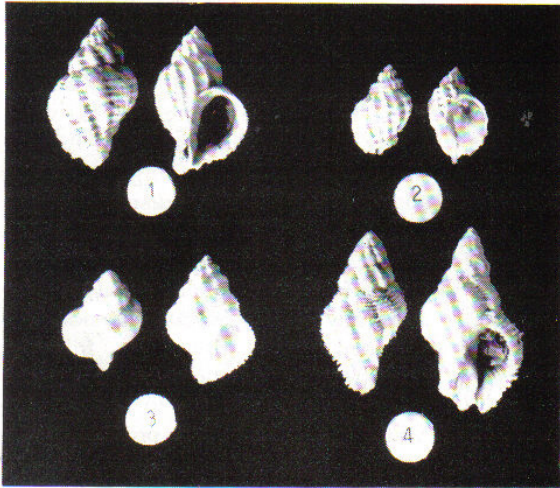
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## CORALLIOPHILIDAE FOUND

by Val v

Photography:



(The shells in the photographs belong to the collection of Val van der Walt unless otherwise specified. The sizes given are for the shells in the photographs). Most species of coral shells, as the Coralliophilidae are known, live in tropical waters on coral, some living at depths of up to 1400 m. They do not have radulae and most live by sucking up cells and body fluids of the coral on which they live. The male and female live together, the female being responsible for carrying the egg capsules.

(Ref: Kilburn, Richard and Rippey, Elizabeth. 1982: *Sea Shells of Southern Africa*:92).

1 *Coralliophila squamosissima* (E.A. Smith, 1876). Park Rynie, Natal. 27mm. Intertidal, generally found in *Palythoa nelliae*.

2. *Coralliophila clathrata* (A. Adams, 1854). Park Rynie, Natal. 18 & 17 mm. Intertidal, lives in *Palythoe natalensis*.

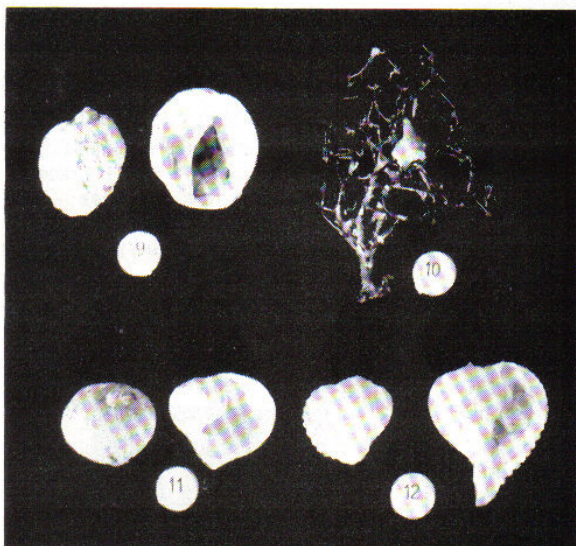
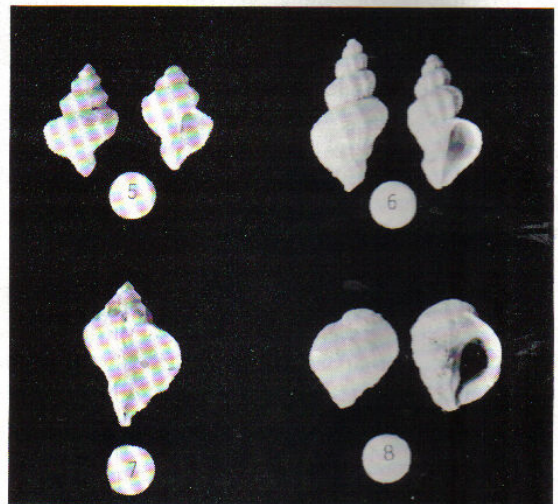
3. *Coralliophila zuluensis* Barnard, 1959. 19 & 23 mm. In sand dredged off Bluff, Durban.

4. *Coralliophila costularis* Lamarck, 1816. Park Rynie, Natal. 30 & 33 mm. Intertidal, found in rock pools where coral is present.

5. *Coralliophila rosacea* (E.A. Smith, 1902). 21 mm. Jeffreys Bay, Eastern Cape Beached specimens.

6. *Coralliophila fritschi* (von Martens, 1874). Jeffreys Bay, Eastern Cape. Beached specimens, 25 & 28 mm.

7. *Coralliophila erosa* (Roding, 1798). Dived Northern Natal. 27mm. Living in coral.



8. *Coralliophila violacea* Kiener, 1836. (synonym *C. neritoidea* Lamarck, 1816, non Linne, 1767). Park Rynie, Natal, 19mm. Found in coral intertidal pool. 21mm. Specimen found in coral from Mozambique, 1980. (Collection Olive Peel).

9. *Quoyula madrepora* (Sowerby, 1834). Dived Northern Natal. 27mm. Found in coral. 22 mm specimens found in coral from Mozambique, 1980. (Collection Olive Peel).

10. *Rhizochilus antipathum* Steenstrup, 1850. Mzamba, Transkei. 11 mm. Found beached on high tide line.

11. *Magilus antiquus* Montfort, 1810. Northern Natal. 22mm. In coral found on beach.

12. *Rapa rapa* (Linnaeus, 1758). Dived Northern Natal. Living in Coral. 18mm & 28 mm.

## IN SOUTHERN AFRICA

er Walt

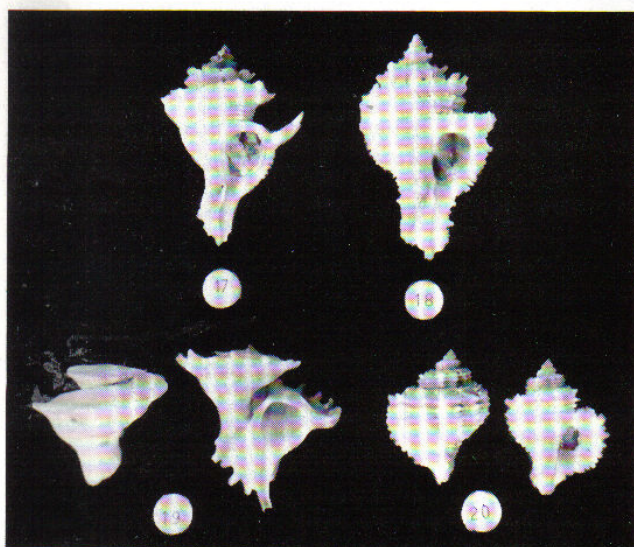
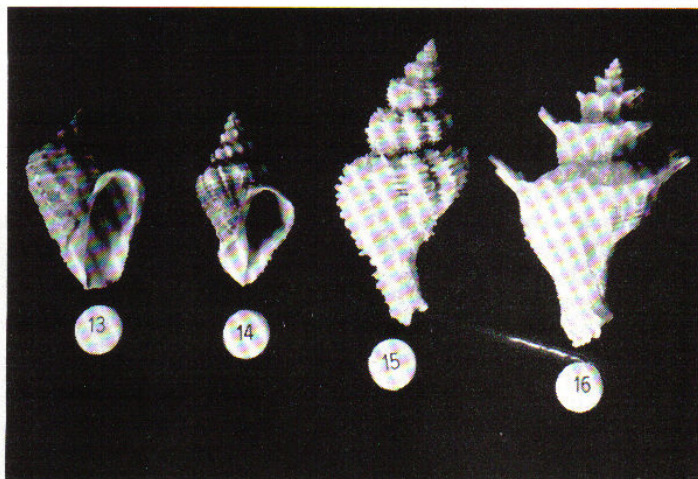
er Massier

13. *Coralliophila pulchella* (A. Adams, 1854). ex  
pisce. Natal. 32mm. (Collection Markus Lussi).

14. *Coralliophila* sp. probably *C. rubrococcinea*  
Melvill & Standen, 1901. Mzamba, Transkei.  
32mm. Crabbed in rock pool. (Collection Markus  
Lussi)

15. *Latiaxis filiaregis* Kurohara, 1959. Trawled off  
Natal. 51mm.

16. *Latiaxis kawamurai helenae* Azuma, 1973.  
Trawled off Natal. 51mm.



21. *Latiaxis* sp. Trawled Natal/Zululand. 50mm. (Collection  
Dawn Brink).

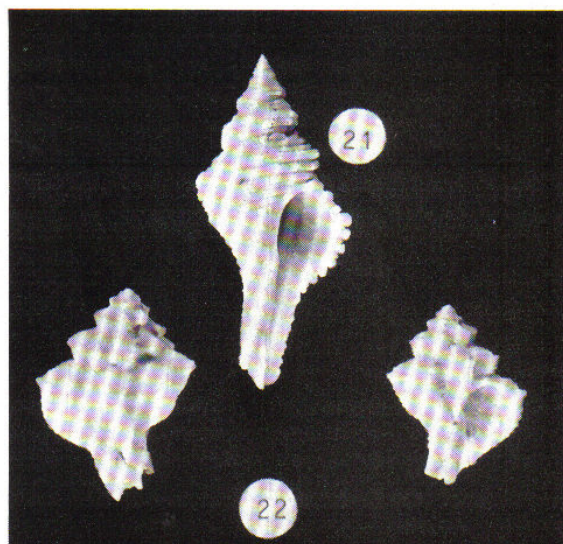
22. *Latiaxis* sp. Trawled Natal. 26mm & 32mm. (Collection  
Dawn Brink).

17. *Latiaxis nakamigawai* io Kilburn, 1974. 45mm.  
Trawled off Natal.

18. *Latiaxis lischkeanus* (Dunker, 1882). 50mm.  
Trawled Northern Natal.

19. *Latiaxis mawae kylix* Barnard, 1959. Trawled off  
Durban. 37mm. 27mm specimen found beached at  
Yellow Sands, E. Cape. (Collection Dawn Brink).

20. *Latiaxis winckworthi* Fulton, 1930. Trawled Natal.  
Both 29mm. (One specimen in collection Markus Lussi).



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## THE FAMILY PLANAXIDAE IN SOUTH AFRICA

by J.P. Marais and R.N. Kilburn

The Planaxidae is a small family of tropical marine gastropods, allied to the Cerithiidae and Potamididae. Although in older literature all planaxids were referred to the genus *Planaxis*, in the latest revision, by Houbriek (1987), six genera are recognized on anatomical grounds, with an estimated 20 species. Subsequently, Ponder (1988) has synonymized one of these genera (*Angiola* Dall, 1926) with another (*Hinea*). The shell somewhat resembles that of members of the Littorinidae, but is easily distinguished by its groove-like siphonal canal.

Most of the biological information given below is taken from Houbriek's paper. Planaxidae inhabit the upper part of the shore, sheltering in crevices, often in groups (for which reason they are called "clusterwinks" in Australia), but crawling actively about on the incoming tide. They are herbivorous, grazing on the microscopic algae that cover the rock surface, the distinctive broad, flaring snout with slit-shaped mouth on the underside moving like a vacuum-cleaner during feeding.

Female planaxids are unusual among molluscs in that they have a brood-pouch situated in the neck region and opening on the right hand side. In this pouch are brooded the eggs, which vary in number from as few as 11 to as many as 12 000, according to species, and which hatch as free-swimming veliger larvae, except for one species in which they crawl away as fully-developed young. Another unusual feature is the presence in species of the genus *Hinea* of a luminescent organ on the upper surface of the mantle. This produces a faint blue-green glow when the snail is mechanically stimulated. The function of this organ is unknown, but may serve as an antipredation mechanism or have a mate-recognition function.

Three species of Planaxidae occur in South Africa, belonging to the genera *Planaxis* Lamarck, 1822, *Hinea* Gray, 1847, and *Supplanaxis* Thiele, 1929.



Fig. 1

*Planaxis sulcatus* (Born, 1780) (Fig. 1)

Shell relatively large (26 mm, broad and thick, with a large body whorl and moderately short spire (which is nearly also eroded); sculptured by numerous, flattened spiral cords and fine axial growth-lines, outer lip crenulated, with prominent ridges inside; brownish-black or brown with white spots on the cords (or vice versa).

Head and foot black, with the sole white. The brood pouch is complex, consisting of a large chamber divided into numerous secondary chambers. Despite reports that in some areas this species produces free-swimming larvae, in others crawling young, it is now thought that two distinct although morphologically almost identical species may be responsible.

In the tropical Indo-Pacific *P. sulcatus* may be as abundant as Littorinidae under optimum conditions. It forms large populations on boulders and rock outcrops, often clustering when exposed to the air. It lives among oysters at high neap-tide level in Mozambique, and on Inhaca Island a black form sometimes lives on the base of mangrove trunks. Within South African limits *P. sulcatus* is common inside Kosi estuary, but is now rare further south. Durban specimens were collected by Krauss in 1839-40, and this colony is known to have survived inside the mouth of Durban Bay at least until the beginning of this century, but

has now disappeared. However, the species is not extinct in Natal, as a small colony was found to have established itself in the Chaka's Rock area only a few years ago.

*Hinea fasciata* (Pease, 1868) (Fig 2)

Shell small (up to 10 mm) and narrow, with sharp spire, surface with faint spiral grooves, becoming deep on base of body whorl, early whorls with strong spiral threads; outer lip thick with about 8 denticles inside the edge; pale yellowish-brown or cream-colour with several darker brown spiral lines. Head and foot white, shading into light tan above the head, with a single brown band along the edge of the foot; tentacles covered with a network of brown lines, snout light pink with three transverse brown bands.

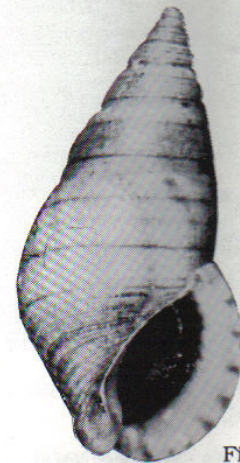


Fig. 2

*H. fasciata* inhabits upper mid-tidal pools and gulleys, sometimes where fresh-water runs into the sea. It crawls actively about when submerged, but when the tide recedes it hides under stones where it can remain moist. It is widely distributed across the Indo-Pacific region and occurs throughout Natal and as far south as Mbotyi in Transkei. This is by far the commonest species of Planaxidae in South African waters.

*H. fasciata* may prove to be merely a subspecies of *H. lineata* (Da Costa, 1778) of the Mediterranean and



tropical Atlantic, differing from this only in its coarser and more regular brown lines, finer basal grooves and weaker spiral threads on the early whorls. *H. lineata* is described as having a dark brown head and foot, overlaid by a network of iridescent blue lines; it has a small brood pouch containing about 30 eggs, brooded to the veliger stage. Although light emission has been reported in *lineata*, we have been unable to elicit it in *fasciata*.

*Supplanaxis acutus* (Krauss, 1848)  
(Fig 3)

Shell larger (14 mm) and broader than *H. fasciata*, with very faint spiral grooves, becoming deep on the base of the body whorl, and a single deep spiral furrow below the suture; outer lip thick with very weak denticles well inside the edge; uniform chocolate brown in colour.

Among southern African species *S. acutus* is easily recognized by its

coloration. It was first collected at Durban by Krauss in 1839-40 (although it is now very rare in Natal) and ranges at least as far as the Seychelles. However, it will probably prove to be a synonym of *Supplanaxis niger* (Quoy & Gaimard, 1834) of the

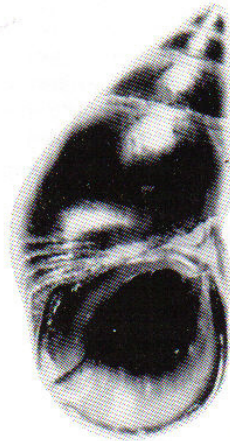


Fig. 3

tropical Pacific. Dead shells have been found at Mission Rocks (St Lucia area), Reunion Rocks, Isipingo, Scottburgh, Shelley Beach (south of Port Shepstone) and Leisure Bay (just north of Port Edward), which is the southernmost locality record. The only living record from our area is a specimen found by the first author at Scottburgh in an algal-covered rock crevice at about low neap-tide level. It is probably somewhat commoner than would appear to be the case, as the dark brown colour doubtlessly provides good camouflage.

#### REFERENCES.

- HOURBRICK, R.S. 1987. Anatomy, reproductive biology and phylogeny of the Planaxidae. *Smithsonian Contributions to Zoology* 445: 1-57.
- PONDER, W.F. 1988. Bioluminescence in *Hinea brasiliensis* (Lamarck). *J. Moll. Stud.* 54 (3): 361.

## OVERSEAS VISITORS

The Pretoria and Durban Groups entertained Aurora Richards of Papua New Guinea during her short stay in South Africa and heard many interesting tales of PNG and envious ones of all the species of shells found there.

A most interesting day was experienced when Joel Greene's tour of 11 American conchologists and nature lovers who were touring South Africa spent a day with members at Park Rynie on the Natal South Coast on 18 May. The day started off with the arrival of a Mynah Bird Bus from Durban with our visitors and after delicious refreshments

served by Eunice and Peter Coetzee, everyone rushed down to the beach to see what they could find in spite of the tide being high. At lunch time we all went along to the lovely home of Olive Meyer and her husband for a banquet lunch. Society members handed over packets of endemic shells to our visitors and were rewarded with shells from the USA.

The day closed with a visit to the beach at low tide when many shells were found by the visitors.

The visitors were also entertained in Cape Town by a few divers and in East London by the Society Group there.

## THE GENUS *DISTORSIO*

In a paper published in THE NAUTILUS, 103(4): 131-135, 1990, on the synonymy of *Distorsio ridens* (Reeve, 1844) with *Distorsio clathrata* (Lamarck, 1816), it was noted that the genus *Distorsio*, and related genera, were recently removed from *Ranellidae* Gray, 1854 (= *Cymatiidae* Iredale, 1913) and have been awarded familial recognition as *Personidae* Gray, 1854, as a sixth family of *Tonnoidea*, by Beu (1988). (Ref: D Freeman).

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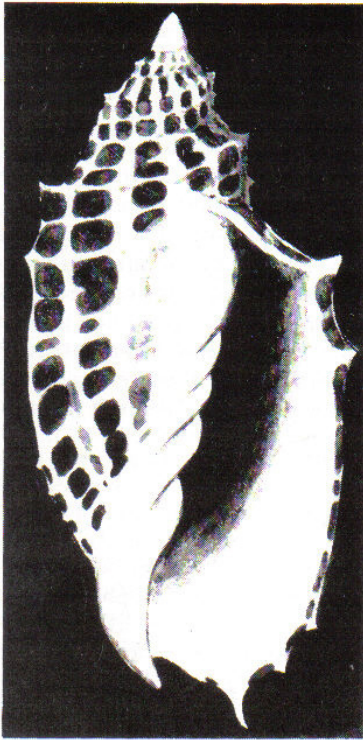


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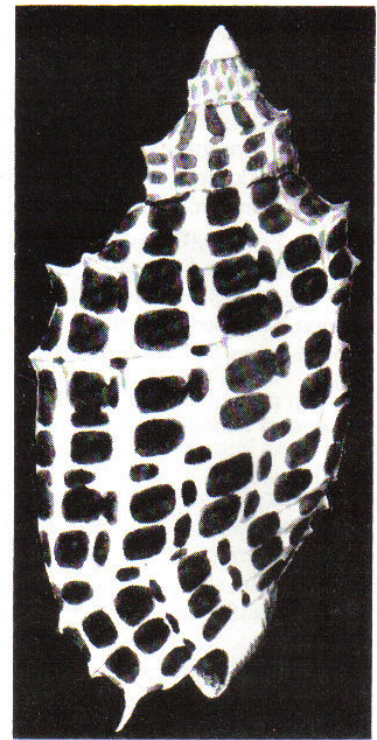




*Voluta echinatum* Baloney, 1989

This elegant shell is the fabled Northern Spined Junonia sought after by shell collectors. This magnificent gem specimen (106 mm) was dredged in deep waters off New Jersey in the vicinity of Hudson Canyon by the trawler "Pipe Dreams". No live specimen has ever been known to wash ashore. Its habitat is in the imagination of the artist.

Ackn. "American Conchologist" June, 1989.



## AROUND THE GROUPS

### PORT ELIZABETH

At its Annual General Meeting in May the following committee was elected:

Chairman: Maggie Stuart; Vice Chairman: Sarita Loots; Secretary: Amanda van Niekerk; Treasurer: Nicholas Robinson; Librarian: Erica Joyce.

At a recent field outing Fred Graeve found a live *Conus mozambicus lautus* Reeve, 1844.

### PRETORIA

Several members attended the Conference and AGM of the Society in May. At their recent AGM the following members were elected to serve on their committee:

Chairman: Laurie Smith; Secretary: Petro van Staden; Treasurer: Dawid van Staden; Lizeke and Han Vandenberg, Linda Swartz, Jeanne Willemsse and Douw Steyn.

### SOUTH COAST

In August the Durban Group attended the meeting in Port Shepstone.

### ORANGE FREE STATE

Bloemfontein, our newest group, celebrated its first birthday in May.

### DURBAN

Members continue to meet every second Saturday of every month at the Natal Parks Board offices in Congella, when different topics are discussed. Ds. Hugo van der Walt, Chairman of the OFS group and his wife visited Durban and Hugo was entertained by Olive Peel, Val van der Walt and Geoff Wallace. Dawn and Michael Meyer presented Val van der Walt with a beautiful grand-daughter who has been named Stacey.

### PIETERMARITZBURG

Interesting meetings continue every second month at the Natal Museum when Dick Kilburn discusses subjects chosen by members.

## BACK ISSUES OF STRANDLOPER

are available from Mr Markus Lussi, 15 Longwoods Drive, Durban North, 4051, South Africa. Black and white copies are R2.50 each and colour issues are R5 each. The Society will pay the postage (South Africa only) as a bonus!

The old circulars which preceded the present format of Strandloper and which are very interesting, sell for 50 cents each.

## ANNUAL GENERAL MEETING AND CONFERENCE 1991

The next AGM and conference of the Society will be held at the Natal Museum in Pietermaritzburg on Saturday 11 May 1991, commencing at 8.30 am, so we look forward to seeing you there.

## ADVERTISING RATES IN STRANDLOPER (per issue)

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## T-SHIRTS FOR SALE

The secretary has T-Shirts with the Society Logo and name printed on them available at R10 each plus postage.

Mrs JEAN HAVENAAR a well-beloved personality in the Transvaal died on the 4th of March. She will be sadly missed.

# SHELLING IN MAURITIUS

by A. ROUILLARD

**M**auritius has long been known for the beauty and variety of its shells. It offers many miles of coral reefs for the reefcomber and clear water for the diving enthusiast. However, as a result of the island becoming a tourist paradise and of increased pollution, shells have either disappeared completely from the more accessible shelling spots or are few and far between.

Two of the better collecting areas were at Pointe Marron at Le Morne and at Ile aux Fouquets at Grand Port. At Le Morne one could find along the beach in shallow water *Conus betulinus*, *leopardus*, *quercinus*, *arenatus*, *zeylanicus* and *tessulatus*, *Oliva caerulea*, *tremulina*, *olympiadina*, *minicea*, *todosina* and *volaroides*, *Mitra mitra*, *Scabricola fissurata*, *Cancilla filaris*, and, if one was particularly lucky, *Harpa costata*. At Grand Port, collecting can be done on a

sand-bank and an adjoining reef. The same species as found at Le Morne may still be collected there, and also *Harpa ventricosa*, *major* and *amouretta*, *Cassis rufa* and other shells associated with reefs.

Other productive areas were at Ponponette, Pointe Citronniers and Pointe Piment. At Ponponette sand pockets in the reefs yielded *Oliva paxillus* and *parniculata*, *Neocancilla clathrus*, *Strombus decorus* and *lentiginosus*, *Lambis digitata* and many others. Pointe Citronniers was a good place for *Conus distans* on the reefs and Pointe Piment for *Conus textile verriculum* and *cernicus*. At all these shelling spots collecting was more productive at night when most shells come out of their hiding places.

The more sought after shells were and are still to be found either by snorkelling or

scuba diving. Snorkelling can be done anywhere within the extensive lagoon which surrounds Mauritius, and where the depth rarely exceeds three meters. Two particularly good areas are between l'Île aux Benitiers and the reefs on the west coast and at Pointe d'Esny in the south. There can be found *Terebras*, *Mitras*, *Cassis*, etc.

Diving in deeper water with scuba will produce the more elusive species. *Marchia elongatus* has been found in Riviere Noire bay, *Cypraea mappa alga*, *cribellum* and *esontropia* have been found in a few meters off Trou aux Biches, while *Conus barthelemyi*, *gubernator*, *pertusus*, *bullatus*, *julii* and *paulucciae* have been obtained at depths of 30 to 50 metres off the west coast and *Cypraea broderipi* has been collected at about 40 metres off Flic en Flac and Ile Ronde.

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### ERRATA LIST FOR "SOME MURICIDAE FROM SOUTH AFRICA"

(STRANDLOPER 227 Jan/June 1990)

Compiled by DAWN MEYER

- Pg 3 *Chicoreus brunneus* (Link, 1807). This species has not been recorded from South Africa in recent years, and may prove to be a doubtful record.
- Pg 6 *Pterynotus tripterus* (2nd photo from the left) should read *Chicoreus (Naquetia) triquetter vokesae*, dived 30m, Northern Zululand. (Dawn & Michael Meyer Collection).
- Pg 6 *Chicoreus ramosus*. 1st photo 3rd line. The second smaller specimen was found in Durban Bay in shallow water under rocks.
- Pg 6 *Chicoreus palmarosae*. The second photo (line 3) shows the typical Northern Zululand dived form. Photo 3 (line 3), first large specimen, shows a more elongate, less frondose specimen from Aliwal Shoal. The second specimen is a shallow water form from Durban Bay.
- Pg 7 *Pterynotus pellucidus* (1st Photo top line). The specimen on the left is *Pterynotus (Pterynotus) pellucidus* (Reeve, 1845), dived Aliwal Shoal, 30m, and on the right *Pterynotus (Pterynotus) albobrunneus* Bertsch & D'Attilio, 1980. Dived Aliwal Shoal 30m.
- Pg 7 Top row photo 3: *Pterynotus (Pterynotus) albobrunneus* Bertsch & D'Attilio, 1980. This specimen was found crabbed at Mzamba, Transkei.
- Pg 7 2nd row Photo 3: *Murex sp.* has subsequently been determined as a form of *Haustellum purdyae* (see photo 2 line 3).
- Pg 7 Bottom row 2nd photo. A group of species from Alan Connell's dredgings off Natal.
- Pg 8 The photo below *Murex sulkieneri* is in fact *Aspella acuticostata* described on page 2.
- Pg 11 *Marchia triptera* (Born, 1778) should be *Pterynotus (Pterynotus) pellucidus* (Reeve, 1845).
- Pg 2-11 All specimens from Dawn Meyer Collection should read Dawn & Michael Meyer Collection.

### ERRATA FOR THE BACK PAGE OF STRANDLOPER 227

- Row 1 Photo 1 and second to last photo data swapped. Photo 1 is *Rhizochilus antipathum* and Photo 5 last row is *Tritonoturris cumingi*.
- Row 2 Photo 2 top specimen is *Timoclea lavrani*, whilst the bottom specimen is *Timoclea arakana*.
- Row 2 Photo 3 bottom specimen is *Crassatella burnupi* Lamy, 1921.
- Row 4 Photo 3 should read *Columbarium subcontractum* Sowerby, 1902.
- Row 4 Photo 5 see data Row 1 Photo 1.

### ERRATA STRANDLOPER No 226

- Article on page 8: Lake Chad:
- Para 2, last line should read "... lake never exceeds 1 part per thousand".
- Para 3, 5th last line: "evapouration" should read "evaporation".
- Para 3, from 2nd last sentence: This should read "The maintenance rainfall of 1 200 mm/annum is primarily derived from the Adamaoua plateau".
- Page 11, last para 1. should read Bruguière and 8. should read Röding.
- Page 12, after third para. 1. should read Bruguière and 8. should read Röding.

### NEW MEMBERS

We welcome the latest new members and wish them a long and happy stay with us:

- Sybil Burger, 3700 Gen. Patch. N.E. Albuquerque, NM 87111, USA.
- Dr MS Cawitz, 12 Morris Street, Hillsboro, Bloemfontein 9301, SA.
- Marilyn Cox, 1114 SE 12 Terrace, Deerfield Beach, Florida 33441, USA.
- Debra Gadd, 9 Discovery St, Westering, Port Elizabeth 6025, SA.
- Charlotte Hudack, 1137 Tienken Court, Rochester Hills, Michigan

48064, USA.

- Dr James McLean, Los Angeles County Museum of Natural History, 900 Exposition Boulevard, Los Angeles, Calif 90007, USA.
- J Olivier, PO Box 89, Tarkastad 5370 SA.
- Mr and Mrs Homer Rhode, Rt 1, Box 585, Big Pine Key, Florida 33042, USA.
- Mrs PER Flett, 2 Delgairns Road, Hazelmere, 3201, SA.
- Mr PJ Botha, 19 Umlaas Street, Carletonville, 2500, SA.

### EXCHANGES

Dr Vladimir Bogomolov, Atlantic Dept, Inst. of Oceanology Academy of Sciences USSR, Prospect Mira-1, KALININGRAD, 236000, U.S.S.R., would like endemic shells and catalogues on regional shells in exchange for specimens from the Baltic Sea, W. Africa, Arctic regions.

Leonard Azzopardi, Hortensia, Mqabba By Pass, Mqabba, Malta, would like South African seashells.

Dario Ferreri, Via F. Trinchera 18, 73100 Lecce, Italy, would like to exchange shells with South African collectors.

Nardi Gianbattista, Via D.L. Tracconaglia 11, 25016 Ghedi (BS), Italy, would like to exchange Mediterranean seashells with South African collectors.

Leonardo Baschieri, Via E Boccaletti 15, 41010 Fossoli (MO), Italy, would

like South African Chitons in exchange for Mediterranean shells.

I Yeroslavsky, PO Box 6085, Beer-Ya'akov 70300, Israel, has Red Sea and world wide shells, also rare *Cypraea* and Volutes. He would like in exchange freak shells and unusual cowries and also rare *Cypraea* and Volutes from South Africa.

Dov Peled would like to exchange Red Sea Shells for South African *Haliotis*, *Patella* and rare *Cypraea*. (Fine to Gem). 1 Zvolon St, K Tivon 36000, Israel.

Paride Di Lullo, Via Delle Speranze No 70, 66026 ORTONA (Chirti), Italy, wishes to get in touch with worldwide collectors for exchange of shells.

Dorothy Schneider, 1217 Westlake Blvd, Palm Harbor, FL 34683, would like to exchange shells with South African collectors.