The Strandloper

BULLETIN OF THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA

No 219 JANUARY/MARCH Page 1

THE GENUS AUSTROMITRA IN SOUTH AFRICA

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by J P Marais and F Graeve

The genus **AUSTROMITRA** Finlay, 1927 (Family Costellariidae) seems to occur only in the southern hemisphere and has been recorded from South Africa, Australia, New Zealand and St. Helena. These small molluscs are active predators and inhabit rock crevices or may burrow shallowly in sand. The genus is represented in South Africa by seven species., most of which are rare.

Austromitra capensis (Reeve, 1845) (Figs 1, 2)

Shell reddish-brown, with a broad central band, often divided by one or more orange-brown lines, base and region below the suture often with dark brown flecks; sutures shallow; low rounded axial ribs, 14-16 per whorl, often obsolete on last whorl; base with spiral threads, sometimes occurring also on intervals between axial ribs; columella with 4 pleats, becoming weaker basally; maximum length 12mm.

Austromitra capensis, the first **Austromitra** discovered in South Africa, was described about 140 years ago by Reeve, who obtained a specimen with locality data 'Cape of Good Hope' from a colleague, R W Dunker. It is the most abundant Austromitra in South Africa and can be found alive on the underside of rocks in tidal pools. It ranges from Table Bay to Durban. Specimens from the Western Cape are pale and have sharp axial ribs and distinct spiral sculpture. Specimens from further east are smoother, have fewer axial ribs (10-12) and are often flecked with orange-brown.

Natal specimens often have about 10 well developed pleats in the outer lip. **A. capensis** may consist of more than one species and requires futher investigation. Specimens exhibiting variations in shape and colour have been described by Turton as new species i.e. **Mitra albanyana** and **Mitra hera,** while Bartsch described a form of **A. capensis** as **Mitra ima.**

Austromitra euzonata (Sowerby, 1900) (Fig. 3)

Shell pure white, with a chestnut-brown central band on the spire whorls; suture shallow as in **A. capensis;** axial ribs 11 on early whorls, 15-16 on the body whorl; columella with 4 pleats, equal in strength, not becoming weaker as in **A. capensis;** maximum length 10mm.

A. euzonata is a scarce species, closely related to **A. capensis.** It was first described from the Port Alfred area and is now only known from beach drift samples from East London to Algoa Bay.

Austromitra canaliculata (Sowerby, 1900) (Fig. 4)

Shell similar in colour to and generally longer than **A. capensis,** but with 10-12 wide-set, broad but weak axial ribs per whorl; suture deep, channelled; aperture with small internal nodule posteriorly; spiral sculpture limited to weak basal threads.

This shell was originally also described from Port Alfred area, but is at present known to range from Cannon Rocks to western Transkei. It is not common but is usually found in worn condition in beach-drift.

Austromitra kowiensis (Sowerby, 1901) (Fig. 5)

Shell uniformly white or light pink, slightly shouldered; sutures almost channelled; axial ribs 13-14 on last whorl, slightly narrower than intervals and extending down to the base, rendering the rostral lirae nodulous; spiral lirae 5-6 on last whorl, crossing the axial ribs; columella with 4 pleats, becoming progressively weaker basally; maximum length 7mm.

A. kowiensis was originally described from Port Alfred and is still only known from that area. Turton, who collected extensively in the area at the turn of the century, recognised broad and narrow forms of the shell. He described a pink narrow form under the name **Mitra helena** and a form with wider cancellations under the name **Mitra eucosmia.** A deep pink specimen, which could not be distinguished in colour from **A. rhodarion,** but which otherwise conforms to the **A. kowiensis** description, has been collected at Cannon Rocks, 30km west of Port Alfred (F. Graeve collection).

Austromitra rhodarion (Kilburn, 1972) (Fig 6, 7)

Shell similar to **A. kowiensis** but deep orange-red to pink in colour with white band around the periphery; sometimes restricted to the ribs, sometimes banded with pink, brown and white; suture deeper and whorls more convex than in **A. capensis;** axial ribs on early whorls 11-15 and 10-13 on body whorl, becoming obsolete at base; axial ribs crossed by poorly defined spiral lirae; base of body whorl with strong spiral cords, not nodulous, the upper one being a continuation of the hindmost columella pleat; columella with 4 pleats; posterior angle of aperture with a distinct nodule; maximum length 7mm.

A. rhodarion ranges from East London to Durban. This species is closely allied to **A. kowiensis** and has been previously misidentified as a colour form of the latter. A smaller, brown form of **A. rhodarion,** which requires further investigation, occurs in Natal and the Transkei (Fig. 7). These shells differ from the typical **A. rhodarion** in their smaller size (4mm), deeper sutures, more shouldered whorls, spiral lirae not crossing the axial ribs and in their chocolate-brown colour with broad lighter band below the suture, usually divided by two narrow brown lines.

Austromitra bathyraphe (Sowerby, 1900) (Fig. 8)

Shell uniformly pink in colour, broader than the other **Austromitra spp.;** suture widely channelled, bordered by an angular shoulder; axial ribs close-set and thin, 14 on early whorls, 16-18 on body whorl, tending to become obsolete on outer lip; upper edge of whorls slightly undulate; spiral lirae conspicuous throughout, 9-11 on body whorl, about 12 additional lirae on base, intersections with axial ribs slightly nodulous; columella with 4 pleats; maximum size 6mm.

The rare species, originally described from off Port Alfred, has been dredged recently off East London. Turton described a broad form of **A. bathyraphe** under the name **Mitra didyma.**

Austromitra distincta (Thiele, 1925) (Fig. 9)

Shell pure white; suture shallow; axial ribs 10, strong, evanesce on the base and in the numerous anodulous, finer rostral lirae; spiral lirae weak, evenly spaced; aperture slightly shorter than the spire; columella with 4 pleats, becoming weaker basally; maximum length 8mm.

Three of these rare shells were dredged in 155m of water off Mossel Bay by the Deutsche Tiefsee-Expedition of 1898-99

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with their research ship the Valdivia. Further specimens were dredged recently by Natal Museum off the Transkei coast from the R/V Meiring Naude.

ACKNOWLEDGEMENTS

The authors express sincere thanks to Dr. R N Kilburn for constructive criticism of the manuscript and assistance with photographs.

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Book Reviews

NEW BOOKS

Five new books are available from AMERICAN MALACOLOGISTS INC., of PO Box 1192, Burlington, Massachusts 0183, USA.

We have not had an opportunity of examining them but the authors' credentials are in most instances reassuring, and these publishers have a reputation for producing books of quality.

LIVING TEREBRAS OF THE WORLD

by Twila Bratcher & Walter Cernohorsky, and edited by Tucker Abbott.
Price: $54,95

Hardback, 240 pages, 73 plates of 100 species in colour and 700 photos of holotypes, covering 267 species of worldwide Terebridae

SEASHELLS OF BRAZIL

by E Rios Price. $27,50

Softcover, 328 pages, 102 plates of 1 000 gastropods, 30 scaphopods, 360 bivalves and 26 species of cephalopods. Text in English. This is a totally new work and not merely a new edition of Rios's "Brazilian Marine Mollusks Iconography" of 1975, although it would obviously be based on that.

SEA SHELLS TREASURES FROM THE CARIBBEAN

by Leslie Sutty, and edited by R Tucker Abbott.
Price: $19,95

138 colour plates of rarer shells from the Caribbean and a text dealing with the author's experiences as she discovered the habitats and localities of these species.

A HISTORY OF SHELL COLLECTING

by S Peter Dance Price: $39,50

Hardback, 256 pages, 32 plates (1 in colour).

This is a newly illustrated and expanded version of the original book that was published in 1966 and has been long out of print. It is an absolute mine of fascinating information.

COMPENDIUM OF SEASHELLS

by R Tucker Abbott and S Peter Dance
Price: $48,50

Hardback, 411 pages, 4 200 colour plates of 4 210 species with scientific and common names and some synonyms, habitats and countries of origin, bibliography and index.

This is the third revised printing, and contains corrections and a new page of recent discoveries in nomenclature.

This publishing company can also supply copies of the revised 1986 edition of Abbott's SEASHELLS OF NORTH AMERICA, a paperback by Golden Press, 280 pages, covering 850 species in colour, at $8,95. They report that AMERICAN SEASHELLS by Abbott, 2nd edition, will also soon be available. The STANDARD CATALOGUE OF SHELLS is available, complete with all supplements, at $60,00.

The exchange rate at present makes imported books very expensive for South Africans, but one can use a bit more discretion in one's choice of books and still acquire a useful library. Personal contacts in the United States might even be able to help you sell shells there to cover the cost of books and so save expensive foreign currency.

BOOKS ON MALACOLOGY

Readers who are looking for a new source of books and papers on malacology might be interested in contacting a firm of printers publishers and booksellers in the Netherlands, from whom we have just received their 1986 catalogue. They list some 50-odd titles, some old, such as Sowerby's works, and some new. One particularly interesting item among the new titles is a new and revised edition of S. Peter Dance's A HISTORY OF SHELL COLLECTING, which was first published in 1966 and has been out of print for a number of years. The price quoted is 94 Dutch Guilders or R24,95, plus postage and packing.

In addition to dealing in subjects such as branches of natural history, these publishers also have specialist sections on eastern and western cultures and religions, history, literature, etc.

Write for particulars to: E J Brill
P O Box 9000
2300 PA LEIDEN
HOLLAND

BOOK REVIEW

THE LIVING VOLUTES OF AFRICA

by D W Aiken and K J Fuller
Published by Sea Gifts, 160 Main Road, Sea Point, Cape Town 8001
Price R8,90 including tax and postage in South Africa.

Foreign orders to include $4,00 US mailing bank charges.

This is a most interesting and useful handbook, which supplements the special issue No. 215 of our STRANDLOPER which dealt with South African Volutidae. This new book deals with these, but includes all seven genera of this family found around the African continent. The format of the book is interesting, being the standard A4-size pages, with one, or at the most two, large scale line drawings and a detailed description of the species depicted per page, over 41 pages.

In my view, this handbook confirms what I have always felt, viz that a good drawing is almost always better than a good photograph. And these drawings are beautifully clear and detailed.

Forty-one species are thus illustrated, and there are drawings also of the radulae of six of the genera showing their peculiarities. The text begins with a distribution map, an explanation of the subfamilies, descriptions of the genera, a useful glossary of terms; and at the end there is a bibliography and an index.

Highly recommended, and a bargain at this low price.

ROSSINIANA

We have previously mentioned ROSSINIANA, the bulletin of the Association Conchyliologique de Nouvelle-Caledonie. This is a French language publication, with parallel English text for the more important articles.

In their issue No. 33 of October, 1986 they have introduced the first part of what promises to be a most ambitious series, analysing the Textile group of the CONIDAE, by Jose Launer. It will be interesting to see how they handle this confused and confusing group.

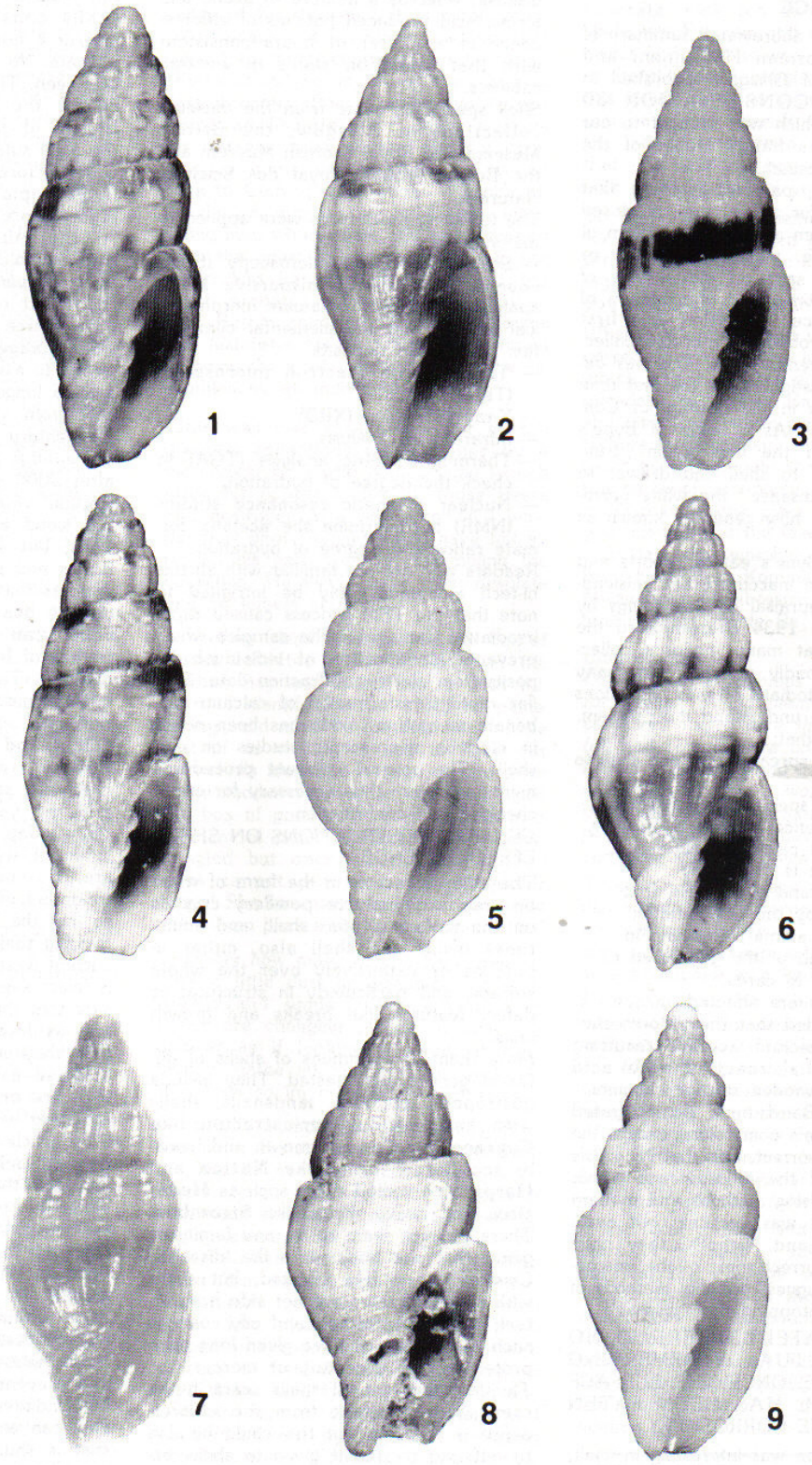
This is always an attractive and readable magazine.

EXCHANGES WANTED

Mrs Sara Murdock of 7423 Folger Drive, Charlotte, NC 28226 USA has an extensive list of many genera and species with good data, to offer for Southern African shells, including bivalves.

Damaso Duarte Monteiro, Rua Cidade de Luanda 209-3-Esq., 4100 PORTO, Portugal, wants to exchange for South African shells.

If you would like to trade from common to rare Cape shells, I am looking for common to rare shells from other parts of South Africa.
Please contact me at 13a Nelson Road, Fish Hoek 7975 or telephone (021) 83-2768.



1, 2. A. capensis 3. A. euzonata 4. A. canaliculata 5. A. kowiensis 6. A. rhodarion 7. A. rhodarion (small brown form) 8. A. bathyraphe 9. A. distincta.

THE DETERIORATION OF SHELL COLLECTIONS:

IDENTIFICATION OF SHELL EFFLORESCENCE

This article is an abbreviated summary of a paper by Norman H Tennent and Thomas Baird of Glasgow, published in STUDIES IN CONSERVATION 30 (1985) 73-85, which was brought to our attention by Mrs Sandy Muller of the East London Museum.

Shell collections, particularly those that lie undisturbed for a long time in closed cabinets, are often attacked by a form of efflorescence, ie. patches of white or grey crystalline salts on the surface of the shells like some kind of oxidation of the shell surface. Attention was first drawn to the problem in museum collections almost a century ago, and was described and investigated for the first time by L StG Byne in the Journal of Conchology in 1899. As a result of Byne's observation that the destruction "travelled from shell to shell and drawer to drawer, like a disease" the white corrosion on shells is now generally known as "Byne's disease".

Unfortunately, Byne's earlier reports and conclusions were inaccurate and misleading, and a reappraisal of his findings by J R Nicholls in 1934 oversimplified the situation, so that many mollusca collections are still badly affected and many owners and custodians of shell collections do not properly understand the problem. Byne reported that:

— the 'disease' spreads from one shell to another.
— only marine species are affected.
— the efflorescence consists of calcium butyrate and calcium acetate.
— the corrosion is caused by butyric acid and acetic acid that is liberated by the fermentation of pieces of animal remaining in the shells and of the gum used to attach shells to cards.
— not all shells are affected.

Nicholls concluded that the efflorescence was simply calcium acetate resulting from the shells' reaction with acid vapours from wooden storage cabinets.

Tennent and Baird have demonstrated that all of Byne's conclusions except the last one are incorrect, and that Nicholls's identification of the efflorescence is not always valid. Using methods and modern equipment that was certainly not available to Byne and Nicholls, they have been able to correct some of the misconceptions and suggest possible methods of preventing or stopping the "disease".

UNFORTUNATELY THERE IS NO WAY OF ACTUALLY REVERSING THE DAMAGE, ONCE THE SURFACE OF A SHELL HAS BEEN EATEN AWAY BY THE CORROSION.

The investigation was interesting in itself, so I will mention briefly what was done before summarising the conclusions:

Preliminary studies of the shell efflorescence by infrared (IR) spectroscopy showed that most samples were not calcium butyrate or calcium acetate, but resembled a mixture of calcium acetate and calcium formate. Confirming this, a shell exposed to butyric acid for 18 months in a desiccator showed no Byne's disease, whereas a mixture of acetic and formic acid produced patches of efflorescence in a matter of hours consistent with that found on shells in wooden cabinets.

Shell specimens came from the museum collections in Glasgow, the British Museum, the Royal Scottish Museum and the Belgian Institut Royal des Sciences Naturelle.

The following procedures were applied to the material:

— Scanning electron microscopy (SEM) coupled with energy dispersive X-ray analysis (EDXRA) to examine morphological aspects and the elemental composition of selected deposits.
— Transmission electron microscopy (TEM).
— X-ray diffraction (XRD)
— Infrared (IR) analysis.
— Thermogravimetric analysis (TGA) to check the degree of hydration.
— Nuclear magnetic resonance studies (NMR) to determine the acetate: formate ratios and degree of hydration.

Readers who are not familiar with all this hi-tech equipment may be intrigued to note that the TEM process caused rapid irradiation damage to the samples which prevents identification of individual deposits from electron diffraction data. Similar rapid transformation of calcium carbonate to calcium oxide has been noted in electron microscopic studies on egg shells. The several different procedures mentioned were thus necessary for cross-checking and confirmation.

GENERAL OBSERVATIONS ON SHELL EFFLORESCENCE

The efflorescence is in the form of white or grey water-soluble powdery crystals on the surface of the shell, and sometimes inside the shell also, either in patches or extensively over the whole surface, and particularly in structural or defect features like breaks and growth lines.

More than 30 specimens of shells of different genera were tested. They include gastropods, bivalves, landsnails, shells with and without periostracum like **Cypraea** and **Conus;** smooth and heavily sculptured forms like **Natica** and **Harpa**; thin walled shells such as **Hydatina,** and heavy things like **Strombus.** There did not seem to be any family or genus that was immune to the 'disease'. Cowries are widely affected, but shells with a periostracum are not safe from attack. Certain varnishes, and oily coatings such as Linseed oil have given long term protection, i.e. a century or more.

The fact that not all shells react in the same way to attack from the efflorescence is puzzling, but this could be due to differing treatment given to shells before storage, e.g. cleaning and thorough washing in fresh water to remove salt might reduce the formation of efflorescence.

The shells used in the investigation had all been stored for many decades in cabinets made of oak. It is known that acetic and formic acid are the main organic acids emanating from oak and some other wood species such as Douglas fir. The efflorescence found on these particular shells consisted of calcium acetate and/or a double salt of calcium acetate-formate. No evidence of calcium butyrate was seen. There seemed to be a tendency for the corrosion to occur in the troughs of growth lines and fractures on the shell suface. Careful washing in fresh water before storage should remove the hygroscopic salts that encourage the efflorescence to form.

As the salts of the efflorescence are water-soluble, they can easily be washed off to prevent further deterioration but, if the wood of a storage cabinet is the main source of damaging acid vapours, a safer storage place should be found. It is wrong to assume that an old oak cabinet will no longer exude acetic acid; an oak core from a lead statue dating from the 8th century B.C. has been shown to give off enough acid to corrode lead even after 3000 years.

Certain varnishes might effectively seal the wood and prevent the acid exudations, but some modern synthetic varnishes and paints do themselves give off vapours that leave deposits on articles in closed drawers and cupboards, and which can oxidise metal such as the frames of leaded glass doors on display cabinets. Those varnishes used on shells in the mid-19th century for 'cosmetic' purposes, either to preserve or enhance colour and pattern, would have been made of organic rather than synthetic materials, and if these could be identified and the varnishes reproduced commercially today, we might be closer to a solution of this particular problem. There are, of course, aesthetic objections to the treatment of specimen shells in this way, so that the least objectionable method of treating shells for storage in terms of our current western W.A.S.P. notions of what is 'nice' seems to be first of all to make sure that the shells are as clean and dry and as free from salt as possible, and that they are stored in well-ventilated, acid-free cabinets or drawers, and that they are mounted on acid-free paper or or board with inert adhesive.

This article has dealt with an investigation into only one particular kind of efflorescence that attacks shells. Collections stored in areas where there is high tropical humidity are also attacked by what is referred to as 'mildew' or 'mould' or 'fungus'. Whether this is in fact a fungal growth or something similar to acid-induced efflorescence described above, has not yet been confirmed as far as I know. Nevertheless, the precautions for control and prevention seem to be the same for all conditions.

One can end by saying that a collection that is shut away in a cupboard for a long time will virtually die of neglect. Take your shells out often and enjoy them. In doing so you will not only get that much more satisfaction and pleasure out of your collection, but you will prevent damage from an accumulation of acid vapour in the cabinets.

THE SCIENTIFIC VALUE OF A SHELL COLLECTION

by Olive Peel

At a lecture by a well known personality we were told 'No matter if you do not have the name of a shell — anyone can find that out — you must always have the locality data, for without that a shell is worthless scientifically'. How true! Two of our members on a recent trip to the United States of America were invited to the home of a shell collector to see her 'fantastic' collection. To say that they were shocked upon discovering that not one shell had a name or anything else on it, is the understatement of the year! Magnificent specimens from all over the world were displayed everywhere but nary a name or locality in sight! How often do we hear 'But I know where it comes from' and I always say 'What if you drop dead tomorrow?' The impression I always get is that once out of sight they don't really care what happens to their collection. A friend told me recently that she had paid a visit to a local collection at a public place where school children were taken to view this collection regularly.

She discovered to her horror that many labels had incorrect names and data on them — the most horrific perhaps was a **Voluta ponsonbyi,** that rarity from South African waters, and a magnificent specimen was called **Voluta queketti.**

There have I believe been offers to put this collection to rights, but the powers-that-be do not want to hear about it. Not surprising I suppose for nimble fingers will always be around to help diminish someone else's collection! One collector who has since sold his collection told me not to worry when I said I had a few unidentified as he had about 200 without names on them! I find no joy in collecting if I cannot put a name to a shell no matter how small or how unimportant it may be.

Imagine now if you can, the horror that would have befallen Hugh Cuming (1791-1865) if he had seen the devastation caused by Maria Gray the wife of John Edward Gray (1800-1875)! After Gray's death his collection housed in the British Museum and carefully displayed by Cuming on sheet wool, was regarded as one of the greatest collections of all time. Maria removed the 83 000 specimens from the drawers and glued them on to wooden tablets. In the process, however, she carried them drawer by drawer across an open courtyard and many labels were blown into wrong places and consequently glued to the wrong tablets! I cannot find any reference as to the reason for this strange behaviour. Maybe her idosyncrasies arose because of the relationship between Gray and Cuming who were by no means compatible as Gray was known to be a very difficult man. This dislike came about mainly because Gray objected very strongly to the manner in which Cuming displayed his own collection, never using lables with locality data on them as he said that anyone who was interested in finding out where the shells came from could look up the papers which described them! He certainly did not intend spoiling the 'symmetry of his drawers'! It was too probably because of Cuming's method that caused so much controversy later when others found so much of the Cuming data incorrect. Poor Cuming was indeed called 'an illiterate sailor'. Many workers for instance have written scathing opinions as many errors could be traced back to Cuming's collection — a pity after the adventurous life led by this interesting man whose main aim in life was to have the finest collection of shells in the world and he reached this object too which probably caused a lot of jealousies. But in spite of all these criticisms and jealousies his collection was claimed as being the most valuable ever to be assembled by an individual.

Thus was lost to science one of the greatest collections put together by a methodical man who had lovingly looked after his collection for all those years and destroyed in a few seconds! I wonder how poor Cuming would have felt after all his hard work in assembling the collection. He would have been desolate had he known about it.

A shelling friend once packed her box of fossils collected after dredgings in the Durban Bay and took them to Dick Kilburn to identify for her which he painstakingly did much to the detriment of the rest of us waiting in line to have our own shells identified — and on the drive home sudden swerving of the car caused the box of goodies to overturn and in a moment of panic labels and shells intermingled but open mouths and startled eyes cannot put them back together again! She has never had the courage to take them back again for re-identification!

I wonder how many of you have tried to blow a little dust or whatever out of a drawer and suddenly before your eyes labels are changing places all over the drawer as if looking for new abodes! How I loathe ink numbers on shells — they look so impersonal, so businesslike.

I can fully, sympathise with Cuming for I too like a certain symmetry in my drawers and do not like untidy labels everywhere, typed and written in all sorts of forms and shapes. So now I am busy retyping every label and have them reduced so that they are not larger than about 2cm square and they are placed underneath the shell and hidden from view. The smaller shells have them placed underneath the container with prestick or behind cottonwool if that is used in the box. Using a data book and a number system can be hazardous as I have found out by losing or mislaying two data books. Fortunately I have other means by which I can make up new data slips.

If a collector can combine a scientific-approach with an aesthetic one how much more interesting it is when you show your collection to other collectors or even to people who are not collectors but are looking out of interest. I try to arrange all my drawers differently so that they do not look boring. I have a separate book too as an index of all shells which I own and next to them the prices and persons who gave them to me or from whom I bought them. By doing this when someone wants a shell which you have and cherish they can contact the person concerned for a specimen, that is if you are not too possessive to give up the name of your 'contact'.

So don't trust to memory and leave it for another day. When you get home after your shelling spree or your day's outing, do jot down data immediately and you will never regret it.

When I asked a friend yesterday for the correct locality as the label on the shell which she had just given me for my birthday had 'False Bay' written on it she said 'It is written on the label'. I said 'Where in False Bay'. She was most confused as she thought that False Bay was the name of one place at the Cape just as Durban is one place in Natal. So all you out there at the fair Cape do put on your data slips whether something comes from Hout Bay, Kommetjie, Witsands or Muizenberg, Melkbosstrand or Langebaan and not just 'Table Bay' or 'False Bay'.

Editor's note:

Of course it is frivolous and irresponsible for anyone calling themselves a 'serious collector' not to take the trouble to put full and correct data on shells that they collect themselves and use for swops but, on the other side a word of encouragement and caution might not be out of place to those who have shells with incomplete data, or even no data at all.

These do have a place in so far as they can add to one's appreciation of the variety within a family or genus, and they can earn their keep just by giving pleasure to anyone who looks at them.

I sometimes wonder how many collectors who insist on 'live-taken specimens only, and with full data' from their suppliers, can be perfectly certain that they are not getting specimens with a few details imaginatively manufactured for the sake of appearances. It is relatively easy to write out a convincing label, and once it has been done, who is likely to argue with the 'published facts'?

If the locality data, and all that jazz, is there for the sake of scientific truth and not just the prestige of the collector, then I think that on the whole I would rather have the minimum of available information truthfully included (or even maybe truthfully left out) than a set of labels that might qualify for the year's top literary award in the fiction classification.

NEW MEMBERS

Mr W Massier, PO Box 11377, WINDHOEK 9000

Mr and Mrs D Boardman, PO Box 119, SOUTHBROOM 4277

Dr D G Herbert, NATAL MUSEUM, Loop Street PIETERMARITZBURG 3201

CONUS MOZAMBICUS OR GUINEENSIS?

by David Freeman.

Although we in South Africa are reasonably comfortable in our minds about using the name **Conus mozambicus** Hwass, 1792, for our well-known Cape cone, there remains a body of opinion 'in partibus infidelium' where they are inclined to call it **Conus guineensis** Gmelin, 1791.

It is regrettable that the rules of the International Commision for Zoological Nomenclature (hereafter referred to as ICZN) should leave room for differences of opinion of this kind, apparently without providing some sort of forum or 'court of appeal' that might issue a definitive ruling, for better or worse.

For many years, up to the mid-1960's in fact, this particular cone was not widely known nor very well represented in private or institutional collections, except for badly worn beach specimens. Live-taken or fresh specimens in all the various forms of this variable species were few and far between, and at that time in South Africa there were comparatively few amateur collectors sharing their knowledge and their shells. This particular cone was known to us (mainly from Dr K H Barnard's early work at the SA Museum) under the name of **Conus elongatus** Chemnitz, 1788. The names proposed by Chemnitz unfortunately are not valid in terms of ICZN rules but, in an attempt to validate this one, a fresh description was published in 1802 using the same name and Chemnitz's original figure, so that **Conus elongatus** Holten, 1802 is actually valid.

However, eleven years before that, i.e. in 1791, Gmelin had used Chemnitz's illustration for a shell that he decided to name **Conus ammiralis guineensis.** To add to our difficulties, the actual specimens of the shells used by Chemnitz and Holten and Gmelin are lost to us, so that we cannot say for certain whether our South African species is involved at all. The drawings are not particulary good and, morever, Chemnitz mentioned that the shells he depicted came from 'the coast of Guinea' so that he could have been referring to some West African species. In fact there are one or two of those that seem to fit the picture as well as, if not better, than our Cape cone, e.g. **Conus aemulus** Reeve, 1844 or **Conus ventricosus** Gmelin, 1791.

At any rate, nobody can now say for certain what specific shell specimen really was involved.

In order to clear up this particular matter, and some other doubtful cases, researcher and cone specialist Dr A J Kohn in 1966 applied to the ICZN to have eight of Gmelin's species names officially suppressed on the grounds of their uncertainty. Among these was **Conus ammiralis guineensis.** It is worth noting in passing, that this name appears to be describing a subspecies of **Conus ammiralis** Linne, 1758, an Indo-west Pacific species that has acquired some two dozen synonyms in all its variations.

For reasons best known to themselves, the ICZN took no action in the matter and the question remained unresolved for thirteen years. Then in 1979 Walls published his book CONE SHELLS: A SYNOPSIS OF THE LIVING CONIDAE and, despite Kohn's still pending plea, Walls decided to designate Chemnitz's figure and Gmelin's name **guineensis** as referring to our Cape cone.

This was despite the fact that, only one year after Gmelin, a more accurate and acceptable description had been published and a validly proposed name was available: **Conus mozambicus** Hwass, 1792. If Gmelin's name **guineensis,** dating 1791, could be suppressed, then it follows that Hwass's **mozambicus** of 1792 would have priority over the only other valid name which was Holten's **elongatus** of 1802.

In any event, as I have said, Mr Walls then came along in 1979 and threw his spanner into the works. It was a very large spanner of over 1 000 pages, and very heavy at 1,75 kilograms, and it caused an enormous disturbance as it went clanking through the taxonomic machinery.

There was a very great need at the time for a comprehensive book on the Conidae aimed at the large international community of amateur conchologists, to whom most of the scientific literature was too diverse, scattered and inaccessible to be of any practical use. Mr Walls deserves every credit for taking on the immense project of collating the great body of information into one volume and for the attractive and thoroughly practical presentation of the contents which makes his book so easy to use. More is the pity therefore, that sections of this book are badly flawed by errors and by the author's own misinterpretation of the facts. Doubtless his conclusions must to some extent have been influenced by the limited number and range of specimens that he might have had in front of him when working on any given species, but if South African collectors look merely at his misrepresentation of their own endemic species, they must understandably lose confidence in the book as a whole.

Be that as it may, Mr Walls's designation of Gmelin's **guineensis** (ignoring any possible connection with **ammiralis**) as reffering to our Cape cone species, happens to fulfil the requirements of the ICZN to make it at least technically a valid name. Moreover as the ICZN had not published a decision on Dr Kohn's 1966 plea for the suppression of that name, Dr Kohn in 1981 felt himself obliged to accept the validity of **guineensis** as a result of Walls's action. One must emphasise that the name is not necessarily objectively correct, but merely that it has been validly established in terms of the set of rules governing the allocation of species names.

One can only question the wisdom of Mr Walls in so obstinately basing the identity of this particular species on such a questionable foundation, especially in view of the serious doubts raised by reputable researchers beforehand, and the existence of the established name **mozambicus** which is based on a recognisable type.

In Kilburn & Rippey's SEA SHELLS OF SOUTHERN AFRICA in 1982, Dr Kilburn again summarises the grounds for the unacceptability of **guineensis.** My own view is that it was unreasonable and unnecessary to revive the name **guineensis** and it can be regarded as another aspect of Mr Walls's general misunderstanding of the identities of this and other South African cone species treated in his book.

Drs Coomans, Moolenbeek & Wils are currently presenting a revision of the Conidae in instalments in BASTERIA, the journal of the Malacological Society of the Netherlands (De Nederlandse Malacologische Vereniging). Conus species and subspecies names begining with the letter 'E' have just been dealt with, including the ramifications of the name **elongatus,** and we have been promised further comment on our particular problem when they get to 'G' for **guineensis.** That may take some time and we look forward to further developments in due course.

Meanwhile I make no apology for continuing to use the name **Conus mozambicus** Hwass, 1792 for the shells I collect with so much hard labour around our rocky Western Cape shores.

TITANIUM

by Olive Peel

It now appears, after I have had chemists examine some of our trawled shells, that the black 'goo' on them is not oil but titanium which appears in pockets at the bottom of the ocean. Apparently this titanium is a natural phenomenon in our beach systems as we know from all the black we get on our feet when walking along some of the beaches in Natal.

We have experimented and it appears that this titanium cannot be removed with anything but acids which we all know is bad for the shell as it removes shine, and sculpture. We have tried lemon juice and this does remove the titanium but then lemon juice also contains acid, so this would still damage the shell to a certain extent and the shell appears to have a white film on it and of course the shine is taken away too. If we get this 'goo' on to our feet it is easily removed with a detergent as our skins are oily and so titanium is easily removed.

So it would appear that we have to live with this problem unless someone else can come up with a solution!

CONUS ALCONNELLI da Motta, 1986

NEW SPECIES FROM NATAL

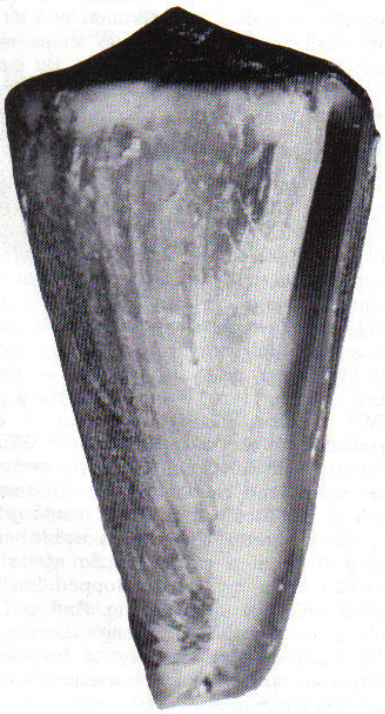
The description of this new cone species by A J da Motta appeared in an 'Occasional Publication of the Portuguese Society of Malacology' No. 7 of December, 1986 (Publicacoes Ocasionais da Sociedade Portuguesa de Malacologia).

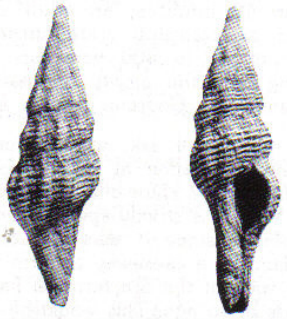
Specimens have been dredged at depths varying from 55 fathoms in the Richards Bay area to 78 fathoms off Park Rynie.

They vary in size from 62 x 29,6mm to 29,6 x 10mm.

The shell is compared to **Conus lohri** Kilburn, 1972 which occurs in the same area; **Conus turschi** da Motta, 1985 from central Pacific; **Conus consors** Sowerby, 1833 which occurs in the western Pacific but has been recorded from Mozambique; **Conus kashiwajimensis** Shikama, 1981 from Sri Lanka; **Conus berdulinus** Veillard, 1972 from Reunion Island; and finally with **Conus kintoki** Coomans & Moolenbeek, 1982 which is found in the Philippines and Taiwan.

The accompanying photograph shows the shape of the shell. The whorls above the shoulder are convexly curved and have distinct spiral grooves and canaliculated sutures. The entire shell is a solid lemon-yellow colour with a narrow paler zone just below the shoulder. The aperture is off-white, porcelaneous and narrow. The colour, shape and proportions of **Conus lohri,** with which it will be most closely compared, are somewhat different. The latter is a brownish yellow to orange-buff colour with violaceous to flesh coloured aperture. It has an oblong-ovate shape rather than the attenuated tapering form of **C. alconnelli.**





SIX NEW SPECIES OF TRIVIA FROM SOUTHERN AFRICA

While on the staff of the SA Museum in Cape Town, Bill Liltved investigated a collection of material relating to undescribed species of **Trivia.** The resulting report was published in THE VELIGER of the California Malacozoological Society, Vol. 29, No. 1, July, 1986.

Six species were identified. Two have been separated from **Trivia ovulata** (Lamarck, 1810) and **Trivia rubra** (Shaw, 1909) by animal and radular studies. These are **Trivia magnidentata** Liltved, 1986 and **Trivia khanya** Liltved, 1986. The former has been found between the western coast of the Cape Peninsula and East London, while the latter was collected from trawls off Cape Recife and Cape St. Blaize.

Four further species were described from shell features only but these were sufficiently distinct to remove reasonable doubt. They are: **Trivia multicostata; Trivia eratoides; Trivia virginiae; Trivia lemaitrei;** all of author Liltved, 1986.

Trivia virginiae and **Trivia eratoides** are close to the known and described **Trivia costata** (Gmelin, 1791) in size, but they are noticeably more globular in shape. **Trivia virginiae** is virtually spherical, while **Trivia eratoides** is more pear-shaped. **Trivia costata** has always been recognisable by its fairly cylindrical proportions. All these species are just under 10mm long and have similar fine ribbing. Known only from Cape St. Blaize.

Trivia multicostata is distinct from the three just mentioned by reason of its very fine ribbing, its very thin and translucent body whorl, narrow labrum, and ovate shape. It tends also to be larger, ranging from 12,5 to 16,3mm in length. Ex pisce from a trawl off Cape St. Blaize.

Trivia lemaitrei is very distict with its prominent and widely-spaced ribs extending only part-way up the sides of the shell, leaving the dorsum smooth and transparent. The length of the shell could vary between 11 and 14,1mm. Also trawled off Cape St. Blaize. This species has been named in honour of our member Dick le Maitre of Somerset West who supplied the type material.

It is very satisfying to see that our **Trivia** species are being sorted out.

DOLICHOLATIRUS BAIRSTOWI SOWERBY, 1886, ALIVE!

by Mike Hart Photographs by Cedric Robertson.

Browsing through Kilburn and Rippey's SEA SHELLS OF SOUTHERN AFRICA, I suddenly experienced a feeling of *deja vu* — I had seen that shell before and alive.

Being a cowrie, cone and marginella freak, I considered shells from other families as non-shells but collected them while diving, cleaned them and put them away with the appropriate data.

Well, I found them at the back of my shell cabinet and they re-emerged after an enforced nine year hibernation. The shells I am referring are Dolicholatirus baristowi. I collected a pair of them on an outer reef off Jeffrey's Bay in 1977 — the depth approximately 80 feet.

According to Kilburn, they range from Jeffrey's Bay to Natal South Coast and at the time of writing his book, fresh shells were very rare and living ones unknown.

BOOK REVIEW

by Megan Manthe, East London.

THE SPELL OF THE SHELL by Martha Keeling Hodgson
published by Andre Deutsch, New York, 1976

If you are looking for a book that will enthral, entertain and embrace your hobby of shell collecting, then do read THE SPELL OF THE SHELL by Martha Keeling Hodgson, published by Andre Deutsch. This publisher always manages to produce a gem of one kind or another!

Martha Keeling Hodgson and her husband travel the world to add new wonders of the sea to their collection, and the book is full of their adventures in the Pacific, America and Mauritius, to name but a few of the shell centres of renown. It is written with captivating charm and humour and the thrill of "making that find" is shared with the reader. This is not a scholastic book, this is different, and the author's main concern is to convey the pleasure to be found in pursuing this satisfying hobby.

"The excellence of shell collecting", she writes, "lies in the fact that it satisfies so many needs at once. It is for young and old, male and female, novice and expert. It can be joyously shared with another or remain a private venture. It provides the excitement of the chase, extreme satisfaction and probably but not necessarily, foreign travel. It requires resourcefulness, alertness, and love of sheer beauty. Also it is good for the waistline; while the bare foot hardens, the eye sharpens and all tensions evaporate".

Your local Provincial library will have this book — if not, the ever-obliging librarian will order it for you as a "Special Request" — I hope you enjoy it as much as I did.

GOURMET WHELKS

AFRICAN WILDLIFE magazine for September/October 1986 carried a remarkable article by a visiting Israeli marine biologist, Amos Barkai, who was studying the subtidal fauna of the guano islands of the west coast under the supervision of Professor George Branch of the University of Cape Town.

He found some unexpected differences on the sea-bed around Malgas and Marcus Islands which are some 4Km apart, just within the entrance to Saldanha Bay.

Malgas Island is at the entrance to the bay, while Marcus is further in. Marcus Island has dense mussel beds, sea-urchins, sea-cucumbers, and 'vast numbers' of whelks, mostly of the Genus **Burnupena.** There are very few rock lobsters (crayfish, i.e. **Jasus lalandii**) or seaweeds to be found. Malgas on the other hand, has enormous numbers of crayfish, masses of seaweeds, many sponges and redbait, but few other organisms apart from two species of whelks, namely **Argobuccinum pustulosum** and **Burnupena papyracea.**

Why the difference?

The article describes in detail the investigation and experimentation which led to the conclusion that some unexplained but significant reduction of the crayfish population at Marcus Island allowed the numbers of **Burnupena** species to multiply there to such an extent that they now prevent a return of the crayfish. It is notable that, whereas only **Burnupena papyracea** survives in moderate numbers at Malgas Island, there are large numbers of **B. limbosa and B. cincta** as well as **B. papyracea** at Marcus. One key to solving the puzzle was the dramatic discovery that although crayfish will eat almost anything they can get their claws on, including most whelks, they avoid the one species, **Burnupena papyracea,** solely on account of its peculiar coating with the purple colonial bryozoan, **Alcyonidium nodosum.**

When fresh, this bryozoan gives the shell the appearance of having been dipped in mulberry jam. If the shells are boiled to remove their animals, the coating turns to a brownish orange colour. Crayfish will happily eat **Burnupena papyracea** if the bryozoan is scraped off, and this probably explains why crayfish have been able to keep the population of **Burnupena** at Malgas in check, because they would have been able to devour quantities of the immature molluscs before the protective coating of **Alcyonidium** has had a chance to grow.

At the same time Amos Barkai found that any crayfish that was unfortunate enough to find its way to Marcus Island would immediately be pounced on and overwhelmed by numbers of **Burnupena** species. These molluscs were observed and photographed attacking the crustaceans, converging on them within minutes and preventing them from swimming off.

Within 40 minutes, an adult crayfish would be completely devoured by a horde of up to 400 voracious whelks, leaving only the empty carapace, legs and antennae. Gourmet whelks, indeed.

One might well ask, what reduced the crayfish population at Marcus Island in the first place? Here one can only speculate; Marcus is strictly speaking no longer an island, since it was joined to the mainland by a causeway to form the seaward wing of the ore terminal harbour a decade or so ago. This would have made it more accessible to poachers than the other island, and of course the building of the causeway would have introduced polluting sediment into the water and obstructed the flow of tides and currents.

Burnupena papyracea can survive fairly heavy pollution and disturbance, as is evident from its persistence along the suburban Sea Point shoreline of the Cape Peninsula.

Several interesting questions were raised during the course of this particular study, and are dealt with in this fascinating and well illustrated article by Amos Barkai.

Try and get copies of this issue of AFRICAN WILDLIFE/AFRIKA NATUURLEWE. There have been occasional articles on mollusca in previous issues of this magazine which is the journal of the WILDLIFE SOCIETY OF SOUTHERN AFRICA/DIE NATUURLEWEVERENIGING VAN SUIDELIKE AFRIKA. Membership fees of that society include the subscription for the magazine which immediatley extends your access to other branches of natural history in Africa.

You can contact them at their headquarters (address: PO Box 44189 Linden, 2104) or via their regional offices at the addresses listed in the magazine, or ask your newsagent for details.

SHELLING IS ANTI-CONSERVATIONARY

by Patricia Eichbaum

Delightful as Swakopmund is, it can become a little dull if one holidays there year after year. So at Christmas 1975 I decided to start a shell collection from the beach specimens abounding there. As very little had been done at the time on South West African shells there was the added incentive of perhaps being able to contribute to local science — as many amateurs have done so ably in SWA.

I spent many happy hours collecting boxes of shells. After each storm I went rummaging through the stranded kelp and I soon learnt where the best shelling beaches were. On my return to Windhoek I bought Dance's Encyclopedia of Shells and added many more hours of sheer joy to my life as I struggled to identify my shells. Gradually I built up a small conchological library and began to learn more about the Phylum Mollusca. Evemtually I was able to mount my collection in boxes and label each specimen. Familiar beaches took on a new fascination. Sandwich Harbour yielded a strange specimen of ***Hinnites*** *fusually in pieces)*

while the lagoon there had warmer water species. Skeleton Coast was a terrible disappointment as the high seas and shingle beaches smashed shells to pieces and I was never able to find a single undamaged specimen of **Charonia lampas lampas** among the hundreds lying around. I now have one at last which Blythe Loutit found and used to illustrate Dr Kensley's book on shells. Luderitz yielded a rich harvest of shells from Shark Island and these kept me busy for a long time until at last I realised that I had most of the SWA shells and the missing ones were very rare and difficult to come by. Living inland was a great disadvantage. Then I began to pester my friends to bring back beach shells from South Africa and abroad, which kept me busy for a time but there was a limit both to my friends and their travels.

There were many advantages to shell collecting. For one thing it was so absorbing it proved to be therapeutic at a stressful time of my life. It brought me several good friends. The SWA Scientific Society asked me to sort, label and display their collection of SWA land snails. I gave slide talks on shells and eventually even broadcast on SWABC. Altogether it was a delightful and instructive hobby and I never killed a single mollusc.

But inevitably, one day the bug bit me and I got hooked on exotics. Mauritius was a sheller's paradise in 1977, where you could dive for your shells or buy them from someone else. I went wild. It was different in Seychelles, however, as they had strict conservation laws. Exotics began to be freely available in South African shops and I also ordered specimens from Taiwan, but in spite of their beauty these shells did not give me half the joy I got had got from collecting beach specimens. This was because, parallel with my interest in shells was my devotion to nature conservation and as I saw shells piling up in curio shops my conscience began to trouble me. By buying exotic shells I was helping to exterminate the most beautiful species. Commercial shells are not picked up on beaches but taken live and the animal killed. How long would these creatures last when their exploitation would buy food for Third World people?. After the shells are sold they are turned into tasteless ornaments or lie gathering dust on shelves all over the world. It also occurred to me that we Westerners cannot admire anything beautiful without having to process it: the flower must be picked, the mollusc killed. Here I was, secretary of SWA Wildlife Society, belonging to organisations like Greenpeace, SAAAPEA, Beauty Without Cruelty, SPCA, and at the same time condoning the extermination of molluscs just so that I could grab as many pretty shells as possible and keep them in a cupboard. So at last I packed away my shells, stopped buying more and gave up collecting. And that is why I feel that I can no longer belong to the Conchological Society of Southern Africa as they collect live specimens and buy commercial shells.

THE SOUTH AFRICAN MUSEUM: CAPE TOWN

Right from our earliest beginnings in 1958, the Conchological Society received the friendliest encouragement from the SA Museum in Cape Town, through a succession of Directors and staff, beginning with Dr K H Barnard. Accommodation was generously given to us, not only to hold meetings but also to house our reference collection and library.

Even when the Museum had to vacate its buildings for extensive reconstruction and expansion, we were made welcome to share their temporary space for as long as we needed it. Dwindling membership in Cape Town and the vicinity made it uneconomic for us to continue using the Museum's facilities, and this branch of the society reverted to house meetings for the time being.

Nevertheless, our informal relationship with the Museum is still something that we value, and we have maintained the most cordial contacts with the staff of the marine biological/malacological department, and with the editors of the Museum's magazine SAGITTARIUS.

Meanwhile, the massive reconstruction on the site of the old museum has come to an end after some three years, and it can be said that the museum has really been moving heaven (in the form of a magnificent new Planetarium) and earth in the process.

Even in its old quarters, the Museum was the largest and oldest museum in the country; with the new additions, the display area will be doubled and facilities for education and public involvement will be greatly improved.

To take advantage of the opportunity to get the public involved with the Museum, they have proposed to form an association of FRIENDS OF THE SA MUSEUM.

The aim is to stimulate interest in natural history and anthropology and in the Museum itself. The staff at the Museum need friends among the general public who can keep in touch with their needs and interests; and the public in turn need the Museum to gain the fullest appreciation of our environment.

Members will receive free copies of SAGITTARIUS, and would enjoy a range of other practical benefits that are still to be negotiated with the directorate, including involvement in various Museum activities.

There will be different categories of membership, with a variable fee structure, as follows:

Student/Pensioner	R5 pa
Individual member	R15 pa
Family member	R25 pa
Patron	R100 pa
Corporate member	R100 pa

Life member R500 lump sum

Readers who are interested may write to the museum (Marking the correspondence "for attention Ms Roeleveld") at PO Box 61, Cape Town, 8000

Cheques may be made payable to The SA Museum. Existing subscribers to SAGITTARIUS should deduct R4,50 from the fees set out above.

We in the Conchological Society look forward to continuing our association with the South African Museum for many years to come.

PUZZLE:

We exchange bulletins with several foreign shell clubs and, in the free exchange of editorial material, we are pleased to share with our readers the entertaining shelly word puzzle received from the National Capital Shell Club in Washington after the convention of the Conchologists of America in that city.

To begin with, here are 20 hidden common shell names, and it might help to remember that they are American names. For example: "The daring rascal loped off at a leisurely pace".

1. It is said that the now extinct dodo lived in Mauritius.
2. Hundreds of shellers, maybe millions, pawed through the Canaveral dump.
3. Be sure to submit revised material to your supervisor.
4. Add U to the French coq in a henhouse who made himself useful.
5. Hey, Bub! Bleach your sneaks and mend your T-shirt! Shape up!
6. John and Ethel met Elmer and Allan on the north-east corner.
7. His unintentional slip permeated the entire proceedings.
8. Be off, Roger, before I give you your just deserts!
9. That inmate is a nut, megalomaniac, and down-right crazy.
10. The schoolboys terminated their high-jinks when Prof. Bock arrived.
11. The shepherd had each ewe and ram shorn in the spring.
12. Your face is too round and your chin is too pointed for those fancy earrings.
13. Planning fast urban transport is a traffic engineer's nightmare.
14. The flooded rill will soon inundate the pasture.
15. To the winner I telexed a congratulatory message.
16. Every Oct., Dec., and Aug., Ernie takes a week's vacation.
17. Harriet has a yapping, fawning, slim pet poodle.
18. Babs (short for Barbara) Babcock let the cat out of the bag.
19. Petroleum jelly or Vaseline is an old fashioned burn remedy.
20. First editions by the French novelist Camus sell for thousands of francs.

(THE ANSWERS CAN BE FOUND ELSEWHERE IN THIS ISSUE)

BISHOP MUSEUM: HAWAII

Through the medium of the internationally known journal HAWAIIAN SHELL NEWS, our readers will doubtless have gained an impression of a flourishing and prosperous malacological society in Hawaii, served by dedicated and enthusiastic members. That is probably a reasonably accurate notion.

Alongside of this, one might also imagine the existence of one of those financially well-endowed museums, heavily staffed with malacologists, looking after the scientific side of the business. There is in fact the BISHOP MUSEUM in Honolulu which, among other things, has a mollusc collection of over six million specimens, making it the eighth largest mollusc collection in the United States of America. Two-thirds of that total is made up of land snails of the Pacific islands, and represents a valuable resource for scientific research in genetics and speciation. The isolated valleys and ridges of the Hawaiian islands, for instance, have supported the evolution of almost 1 000 separate endemic species from just a few commom ancestors.

In contrast to the popular image of a typically prosperous American institution, however, a severe shortage of funds has in recent years curtailed the Bishop Museum's ability to support scientific activity, and the malacological department has had to make its contributions to the cutting of costs. In addition, over a longer period, the care of the collection in terms of basic "housekeeping" has been neglected so that specimens are badly affected by the so-called "Byne's disease". Urgent fund-raising has been started to cover the cost of appointing a conservator to assess the problem and develop a new and safe storage system, and also to instal air-conditioning in the storage area. The museum also hopes to be able to endow a chair of malacology that will initiate an active research programme, bringing additional use to the collection. Recent grants and fundraising have already produced some $31 000 which will help to get things started.

The thorough renovation of the collection is expected to take several years. We can but wish them well.

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OF HARPS AND HELMETS

Among the papers received at the start of 1987 was a copy of a description of a new species of Morum from the Andaman Sea, i.e. off the coast of Thailand.

This is **Morum (Oniscidia) ninomiyai** Emerson, 1986. Other species within the subgenus **Oniscidia,** which was created by Morch in 1852, are **cancellatum** (Sowerby, 1824) which is the type species; **grande** (A. Adams, 1855); **uchiyamai** Kuroda & Habe, in Habe, 1961; **joelgreenei** Emerson, 1981; and **watanabei** Kosuge, 1981.

The new **Morum ninomiyai** has strongly cancellate sculpture and is distinguished by its dentition of the outer lip, the parietal sculpture, and the number of axial and spiral ridges.

Two interesting observations with wider implications than the identification of just this one species, however, are:

1. The genus **Morum** has for a long time been classified with other mesogastropoda in the family Cassidae, so that collectors with tidy minds and organised collections would have put them with their helmet shells. Recent anatomical studies, of which there is a manuscript in preparation, show that this genus is actually referable to the Neogastropod family Harpidae.

2. Linked to that discovery is the further observation that the family name Harpidae created by Bronn in 1849 is a homonym (that is to say a duplication) of the family name Harpidae created by Hawle and Corda in 1847 within the Trilobita.

   Application has therefore been made to the International Commission For Zoological Nomenclature to change the spelling of our gastropod family to Harpaidae Bronn, 1949

Although it would strictly speaking be jumping the gun to make these two changes to all your records until they have been properly published in the authorised manner, you might as well get used to the idea now. The thought occurs that the biblical notion of beating your swords into ploughshares has a rough parallel in changing helmets into harps.

SHELLS "EX MOLLUSCA"

Charles Marais
PO Box 1503
6530 George

For the past 5 years I have obtained a large variety of deep-sea shells from fishing trawlers operating out of Mossel Bay, including good specimens of.

Neptuneopsis gilchristi Sowerby. With much patience, I have persuaded the trawlermen to bring me only large (150mm+), unblemished specimens and to return the others to their habitat. In practice, this means that the others are simply hosed overboard, hopefully surviving the 100 fathom plunge to the sea bed.

The chosen specimens mostly reach me in a live state. After immersion in fresh water for a few days, I extract the dead animals, usually in one piece, and use them to fertilize my fruit trees, with excellent results.

Casually paging through Brian Kensley's "Sea Shells of Southern Africa" one day last year, I read his remarks on Volutidae, amongst which is the statement that all volutids are carnivorous. So when the next batch of **Neptuneopsis** arrived, I started exploring their innards. Imagine my surprise when I found a small species of **Ancilla** in the gut of one! It was subsequently identified for me as **Amalda errorum** (Tomlin) by Mr J.P. Marais of Pietermaritzburg.

Needless to say, I have since then examined every animal minutely and have so far discovered 5 different species in their insides.

They are:-

Amalda errorum (Tomlin) 10mm
Marginella musica Hinds 16mm (a shiny beauty)
Bullia tenuis Gray 22mm
Nassarius vinctus (Marrat, 1877)
Pteropurpura capensis (Sowerby) 18mm.

The **Pteropurpura capensis** was especially interesting because it was completely intact, with unbroken spines and operculum in place. How the **Neptuneopsis** can ingest such a prickly thing boggles the mind.

The fact that the predator shells **(Neptuneopsis)** were definitely trawled at a depth of approx. 100 fathoms gives rise to an interesting question: Do the ingested shells occur at a much greater depth than heretofore supposed? It seems hardly likely that the predator shells would move to shallower water, feed, and then return to such greater depths.

It looks as if the good Agulhas Bank still has a few surprises in store for us.

LIVE SPECIES FROM EAST LONDON

by Sandy Muller
East London Museum
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Southernwood
5213 East London.

As promised in earlier Strandlopers, I wish to add four more species to the list of live taken specimens from our area.

The species are:

Conus infrenatus Reeve — dived

Crassispira bairstowi Sowerby — dived

Marginella ornata Juv. Redfield — dived

Pyrene flava filmerae (Sowerby) — trapped Xora

Marginella piperata Hinds

Some interesting facts concerning the species listed above. The **Conus infrenatus** collected alive are usually very poor specimens from the collector's point of view. The shells are very heavily scarred by repair marks or abrasions marks, however every now and again a gem specimen is found and these truly are magnificent. The periostracum is very heavy and has large tufts in the vicinity of the spire.

Crassispira bairstowi is a very active little turrid and lives in and amongst the pink coralline seaweeds. They are very much camouflaged but with a bit a hunting are readily collected

The **Marginella piperata** are most interesting for two reasons. It has been my very good fortune to have and maintain **M. piperata** collected in the shallows as well as those trapped or dredged off shore in 10m plus and one can clearly distinguish the two types (I am not talking about all the forms like **albocincta** etc.) but rather the inshore and offshore **M. piperata.**

Those collected inshore are larger, darker and heavier and this is readily discernable. Those collected offshore are smaller, paler and lighter (thinner). I would be most interested to know whether anyone else has noted this difference.

ACKNOWLEDGEMENTS.

I wish to thank Mike Els, Bruce Bursey, Deon Smit and Janet Lambie for bringing this document to fruition.

ANSWERS TO HIDDEN NAMES WORD PUZZLE.
COMMON NAMES:
1, Olive. 2, Lion's paw. 3, Mitre. 4, Coquina. 5, Bubble. 6, Helmet. 7, Slipper. 8, Frog. 9, Nutmeg. 10, Oyster. 11, Ramshorn. 12, Urchin. 13, Turban. 14, Drill. 15, Nerite. 16, Auger. 17, Limpet. 18, Cockle. 19, Vase. 20, Mussel.

BOOK REVIEW

by David Freeman

SHELLS OF GABON (COQUILLAGES DU GABON)

by Pierre A Bernard, published by the author, Libreville, 1984

It was a great pleasure, as well as a charming compliment to receive from Professor Bernard this copy of his fascinating book on the shells of Gabon. This West African country is situated on the equator and, as is pointed out in the preface, the interest in the book is to emphasize the important links of the fauna with that of other malacological regions like the Mediterranean, the Caribbean and the West Atlantic coast and especially with the rest of the West African coast from Angola in the South to Senegal, and including the islands in the Atlantic.

Apart from the monograph on the Cone shells of the Cape Verde Islands (1980) by D Rockel, E Rolan and A Monteiro, this is the first review of the molluscs of the central West African region since that of M Nickles which was published in 1950. Recent taxonomic revisions were included as far as possible, and some differences of opinion among specialists noted, particularly with the Muricidae.

The illustrations cover 296 species, being 257 gastropods, 35 bivalves, 1 chiton and 3 scaphopods, and there are 4 plates of micro-shells.

The immediate impression is of the excellence of the coloured plates where an obvious effort has been made to use backgrounds that show up shell detail. In a few cases this meant illustrating shells in an order different from that in the text, but the figures are all numbered with the text references, so this is not a problem. The text is in French, with a parallel translation in English, so readers have the added opportunity of some pleasurable excercises in the French language while identifying the shells on the facing plates. Variable species, such as Naticidae, Thaididae, Olividae, Marginellidae and some of the bivalves, are well illustrated. A few plates of late discoveries were added at the end of the book and make an interesting conclusion to this very satisfying work.

Where to get a copy and how much it will cost you? Well, probably the best way would be to write to the British dealers in Natural History books, Messrs Wheldon & Wesley, Codicote, near Hitchin, Herts SG4 8TE, England; and ask them for a quotation.

It is a most excellent book.

THE MIGHTY GIVER AND TAKER

by Andy Keppie, Durban

When one considers an old Conchologist, one visualises him (or her) having spent the greater part of his life pursuing his chosen hobby but alas in my case — no! On looking back, I at the age of 57, have only been active in collecting shells for a mere 15 years and on pondering over the joys I have experienced during this time in accumulating my collection I often wonder why I had not started sooner.

Remarkably I was born in Durban, spending the first 26 years of my life there and I can quite honestly say that I cannot recall ever having picked up a shell and wanting to keep it. Is this not typical of thousands of coast dwellers?

At this stage I left Durban to spend the following 15 years in the Transvaal where I married and started a family. The call of the ocean finally attracted me and in 1969 I returned to the fair city of Durban and 3 years later moved to a 25-storey block of flats on the beach front.

It was here that I first tasted the thrill of shell collecting — not by being introduced to it formally but quite by chance. This is how it began: In order to control the middle-age spread I took up jogging and each morning about 6 am I jogged from my beach front flat on to the beach at Snake Park and thence to the Country Club beach and back — a total distance of about 2 kilometres.

During one of my runs I can recall coming across hundreds of **Janthina janthina** on the high tide line, so I promptly collected a sardine pocket full of these brilliant mauve specimens and bore them home triumphantly in order to clean and display them. I cannot remember my first attempt at preparing these shells or the tools that I used, but I still today have a not a single perfect specimen of these delicate shells.

My next find was cuttle bones which I avidly collected for a friend of mine who bred canaries. These I found fairly frequently just after high tide together with odd pieces of driftwood, cowries, cones and a motley variety of common shells. The most exciting finds were of **Bullia natalensis** which attracted me immediately I discovered them burrowing into the sand as each wave receded. Many a morning I stood in the water picking up dozens of these wiggling shiny specimens blissfully unaware that there was such a thing as a permit to collect live shells.

My first attempt to evict the animal from the shell was by firmly grasping its gyrating foot and using a little sand as a gripping medium I twisted the shell with the other hand until either a) the foot slipped out of my fingers b) the shell broke or c) the animal broke into two pieces, one of which was still lodged in the shell.

My final method of cleaning these monsters was by boiling them in a jam tin and then hooking out the animal by means of a knitting machine tool which was shaped similar to a crochet needle. As flat-life offered very little sunlight for drying, I heated the shells gently in the baking oven of an evening so you may well imagine the pong of simmering, half putrefying gastropoda wafting into passageways. Judging by the remarks of passing neighbours I was forced to close the kitchen windows but when the odours permeated our flat I was virtually banned from the kitchen by my wife, so ending my nightly culinary efforts at baked "bulliatensis a la Keppie".

During my morning jogs I picked up many a shell as well as the unexpected finds such as one day I came across a stranded flipper — a beautiful black Italian-made flipper which I took home even though I was short of its mate as I had often watched youngsters snorkelling with only a single flipper and thought to myself I could enjoy the sport with my solitary flipper. To my amazement, one morning in almost the same vicinity, about 8 days later I picked up the identical mate to the first flipper and once again bore it home in elation. Needless to say I used these flippers for some years even after leaving Durban and moving to the Free State and the Transvaal and finally back to Durban again, until one day my son, a teenager, borrowed the flippers to spend the day at the beach with friends. In the carefree exuberance of youth he promptly managed to "lose" these flippers, my prized possessions, thereby reminding me of the age-old saying "easy come easy go."

On another of my morning jaunts I came across a neighbour who took a brisk walk along the beach about the same time time that I jogged. She was keeping an eye over a dead body until the police arrived upon the scene. The body was decently covered with a beach towel by this time. It had apparently washed ashore during the night and I still recall the bluish tinge of the fingers and toes. It was later reported in the local newspapers that the body of a man had been found opposite the Blue Waters Hotel and a neat bundle of clothes and car keys were found on the sand. The keys fitted a car which was parked on the roadway above. One often wonders about the complexity of the human mind. Was it an accident or was it planned?

Yes, fellow conchologist, the mighty ocean has much to offer us — not only in the abundance of conchological specimens but in the surprising flotsam and jetsam that it constantly spews out upon its shores.

"Whatever it taketh, it giveth back again."

ODE TO AN OYSTER

Tonight I ate an oyster
An oyster in a stew
A stew of milk and butter
Which he was floating through.

I ate his heart, his liver,
His gill and fluid sac,
His teeth and capillaries,
The tube along his back.

I ate his brain and ganglia,
His nervous system central,
His stomach and its contents,
His muscles to the ventral.

I ate his pores and fleshy foot,
Intestines large and small,
His other glands and tissues;
I quite devoured his all.

Dear host, the meal was perfect,
A real delight to sup —
Please show me to the bathroom —
My oyster's coming up!

(With acknowledgements to the author, Mary Lou Pugh and Greater Miami Shell Club's bulletin THE MOLLUSC in which this verse appeared.)

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MY INTERESTING EXCHANGE FRIENDS OVERSEAS
by Olive Peel.

I had mentioned to one of my friends that I was going to start collecting 'collectors' bottles and he wrote back sending me a photograph of an exciting looking bottle from a friend of his who wanted his antelope head in exchange for it, so what on earth he wants from me in shells I hate to think!

I mentioned to another dear friend in Singapore that I had arthritis so the next time he went to the fishing wharf he mentioned this to some old Chinese fishermen and they brought him a bottle of oil on which he wrote 'arthritis oil' and sent it along to me in a box of shells. He mentioned to me that his mother had arthritis in her feet and wore his rugby socks to bed at night and as I could not bear to think of her with thick, striped and smelly rugby socks on I sent her some bed socks, also with some shells.

The postage was R20 but later back came the parcel as customs at his end would not accept it for some reason which we have never been able to find out. I sent it back once more and it cost me another R20 so I thought is a bit much paying R40 for a pair of bed socks!

A dealer wrote that he did not normally exchange shells but as he had never come across a lady who sang in opera and who collected shells, he would make an exception of me!
A very handsome Italian soldier, when I told him of my middle-aged years said, when re-assuring me that I was not 'old' — 'a lady of your age is in the youth of old age — or at least so say the Italian men!'

Another friend in England has just bought a large 'trailer' as he calls it — caravan to us — and has turned this into his shell room. I wonder what happens when they want to go on holiday. Perhaps they carry their 'hobby' with them! (as well as their gas masks).

DECEASED

Mrs I Bartsch of the Bluff, Durban.
Mrs A Burger of Flamingo Vlei, Cape Town.

TRIBUTE TO ALLAN JENNER
by Don Aiken.

Allan passed away on the 10th of February, 1987 at the age of eighty. He had been one of the stalwarts of the CSSA since 1966 when D H Kennelly suggested that the Transvaal group of the society needed resuscitation. Allan put his back into the task and for some years it was a very successful group.

Allan's conchological expertise was of a high order and, over the years, he amassed some very rare shells. His work on shells was meticulous and most members would be able to spot one of his labels immediately because of his painstaking, copperplate handwriting.

His systematic methods were well applied when he decided to study the Ancillidae. This culminated in the publication of a paper, with co-author Dr R N Kilburn, in the Annals of the Natal Museum.

Allan has been honoured by having two shells named after him, namely Bentho-clionella jenneri Kilburn, 1974 and Amalda jenneri Kilburn, 1977.

It was only recently that he decided to dispose of his collection and recipients of any shells from the collection will know that the data accompanying the specimen will be as accurate as it can possibly be for Allan was scrupulously honest in all his dealings.

Allan will be missed but well remembered by many people, not the least of which were his shell collecting friends.

Mary Winifred Mears passed away on 16th November 1986. She joined the Conchological Society in November 1972 and served on the Port Elizabeth group committee. In 1982 she joined the Durban group committee and later the executive on 27th July 1986. Mary was very knowledgeable on her South African shells especially the micromolluscs. Shell collecting in Durban will not be the same without her company.

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