The Strandloper
BULLETIN OF THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA

No. 231 DECEMBER 1991 Page 1

Family CASSIDAE

Phalium (Casmaria) decipiens Kilburn, 1980

complied by Val van der Walt

DESCRIPTION: Shell oblong-ovate, thick, glossy, spire flat-sided and blunt. Aperture acutely tapering posteriorly, labrum thick, interior of labrum with a series of low blunt denticles. Columella with a thick callus deposit and three to nine fine oblique folds. Surface smooth; no spiral sculpture. Ground colour brownish - orange to medium orange - yellow or light greyish - brown with a series of small brownish - orange spots, aperture medium brown to brownish orange, edge of labrum crossed by nine indistinct brownish bands, with a large brown blotch at the dorsal terminal.

Distribution: East London area to Natal North Coast.

Ref: R.N. Kilburn: Taxonomic Studies on the Marine Mollusca of Southern Africa and Mozambique Part 2. Annals Natal Museum, Pietermaritzburg. November 1980.

Fig 1

Figs 1 & 2 :
Phalium decipiens holotype.
Ventral and dorsal view.

Fig 2

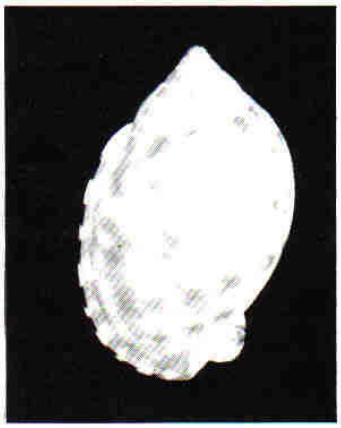


Fig 3

Fig 3 *Phalium decipiens* - specimen in collection of Lawrie and Jeanette Coleman and was found by Lawrie at Mzamba, Transkei, 1991.

Shelling at Nahoon Beach, East London

by
Sandy Muller

Nahoon beach is the largest and most popular bathing beach in East London (Avis, 1986). Its natural, undisturbed beauty, excellent surfing waves and sheltered rock pools make it extremely popular, not only with residents, but with visitors to the city as well. Although exposed to the ravages of episodic floods and the constant onslaught of swells from the southern oceans, it is nevertheless a safe beach, well-manned by life guards. Bird watchers use the Inhlazi River, which empties onto the beach, as a birding paradise where 58 bird species have been recorded.

Probably the most under-utilized activity in this area is shell collecting. Although the main beach is exposed, and only the western corner protected, a wide variety of excellent shell species may be collected. The most profitable time to visit this area is during neap tides, when gentle wave action deposits shells along the tidal mark. Contrary to general expectations, the strong wave action during spring tides does not make for good shelling. The corner of Nahoon beach yields excellent finds to those shellers willing to, of necessity, seat themselves on a soft cushion, and patiently sift through all the dead and sun-bleached material that accumulates in drifts in this area. Some of the more unusual finds that have been collected are: *Marginella bairstowi*, *M. mosaica*, *Bullia callosa*, *B. trifasciata*, *B. laevissima*, *B. annulata* and *B. pura*. Amongst the turrids are *Drillia caffra*, *Austrodrillia hottentota*, *Crassispira bairstowi*, *Nquma rousi*, both adult and juvenile, a number of Ancilla species and then of course a host of the small mesogastropod species that we all so avidly try and collect, to complete our collections. Two of the smaller specimens that I collected here are *Alvania fenestrata* and *Rissoina calia*. A wide variety of the Cerithiopsidae and Triphoridae families may be collected here. The flotsam and jetsam that accumulates here is often as a result of river debris, but this buoyant material tends to trap some of the most interesting and perfect specimens I have yet found in this area.

All Janthina species as well as many of the Epitoniids that should occur in our area may be collected from this accumulated debris. Other interesting species have been many of the Cavoliniidae or sea butterflies, some of them still containing the animals, and some of the smaller and lighter bivalves such as *Neocardia spp.*, *Limidae spp.*, *Pectinidae*, *Anomiidae*, and *Tellinidae*.

In the sand amongst the rocks of the rock pools many common burrowers can be found if one is simply patient enough. Towards the Nahoon River itself the sandy beach yields some of the more common sand dwellers and further along the river banks yet other interesting species may be found. A word of caution however is necessary here. Although one may eulogize the aesthetics of the area, it must be borne in mind that the area is subject to periodic sewage spills and as such, care should be exercised when handling shells collected in this area especially after heavy rains or high seas.

To mention a few of the shells found live in this area may be of interest to potential visitors. Many turrid species such as Drillia caffra, *Clavatula kraussi*, *C. rosaria* and *Nquma rousi* may be found here. In addition some of the more interesting sand dwellers are *Bullia callosa*, *annulata*, *pura* and *trifasciata*. Dead specimens of these are common. However one needs a boat, trap, dredge or SCUBA if one is likely to find any of these alive in this area.

During spring and again in early autumn interesting shells can be collected from the hermit crab populations inhabiting the muddy pools of the river near its mouth. Further up the river towards the Abbotsford causeway many interesting specimens can be found. All that is required is a pair of gumboots and some sturdy gardening gloves. Turning boulders, although a backbreaking exercise, is well worth the results, as many of the so-called rare, obscure or lesser know bivalves are exposed. Please remember to turn the rocks back over once you have collected your booty.

On the mudflats and even on the small island composed of flood braided pebbles, interesting smaller molluscan specimens await the intrepid adventurer. All the species mentioned are of the non-spectacular, non-popular type but give interest to any collection and allow the serious collector some other venue in which to collect.

Acknowledgements

It's not often one has the opportunity to publicly thank a buddy who despite much pleading, always wants to remain anonymous. I thus take this opportunity and want to thank my long-time shelling buddy who over the past five years has constantly niggled and nagged me about shells. I, in turn, have had the privilege of access to his bottomless pit of information concerning the shells of this area. He is always available to add to any list I may make, and to criticise any manuscript I may be preparing. It is a tribute to our friendship that we have been able to share and write many articles together and still remain friends. I wish him and his increasing family a wonderfully rich and happy life as they take up their new abode. I will miss them tremendously but I know that one day they will return. My heartfelt thanks.

GOOSEFEATHERS

The story, to judge by the details on Mycenaean pottery, was an ancient one and always went something like this: The fruits or leaves of certain trees fall into the sea and become barnacles. The barnacles themselves then grow on logs or ships' timbers, and at a certain point they fall off into the sea and become geese, either Barnacle geese or Brent geese.

In the early 13th century the goose barnacle became a source of some clerical controversy. Irish priests had been caught eating geese during Lent. Because they had never seen the arctic nests of these migrating birds, the priests believed they arose from the goose-necked shells with the feathery tendrils. So they considered them seafood, not fowl. But Pope Innocent III had his doubts and issued a Bull in 1215 forbidding the eating of barnacle geese during Lent. Meanwhile, Rabbi Izaak ben Joseph of Corbiel, in France, concluded that if these geese did grow from barnacles on the drifting wood, then Jews couldn't eat them because they were shellfish and so were forbidden under dietary laws.

Not until the 18th century was it more generally agreed that a barnacle was neither shellfish nor fowl (although Linnaeus called these barnacles *Lepas anserifera* or "wild goose shellfish") but a crustacean, "a little shrimplike animal", as Thomas Huxley said, "standing on its head within a limestone house and kicking its food into its mouth with its feet". The goose barnacle's "feet" are feathery cirri that wave back and forth in the currents, capturing floating food and pulling it into its mouth.

(Ack: Irradians, Long Island, USA)

THE SANDS OF THE BEACHES

by

R.F. Lawrence

On no two days are the sands of the beach the same; with sudden and variable winds which arise in the Cape, the whole appearance of the beaches and dunes can be changed overnight. Sand dunes appearing in unexpected places or transported wholesale to others; when the winds blow strongly every small pebble or shell is raised on a small pinnacle of sand like a miniature volcano in a model landscape; to windward of each pinnacle there is a flange of raised sand like a pointer which shows at a glance the exact direction of the wind.

The grains of beach sand, being of different sizes, the smaller and lighter grains are more easily lifted and transported by the wind, hence the wave-like ridges so characteristic of sand dunes (the "ribbed sea sand" of the Ancient Mariner). The larger grains are heaped up along the tops of the ridges while the smaller ones are lifted and blown away, forming the grooves or "valleys". These wind-blown sand grains have a strong abrasive quality and pieces of glass and old bottles, after polishing and grinding by wind and water come to have a frosted appearance; houses that have stood a long time near the beach tend to acquire frosted window panes.

Beach sands may contain fragments of a dozen minerals including mica and silica, but the two most abundant generally speaking are quartz and calcium carbonate. The latter derives from the limy shells of marine animals which are gradually reduced to smaller and smaller fragments by the pounding of the waves, until they are indistinguishable from any other sand grains. The quartz grains derive from the ageless and endless erosion of land rocks,swept seawards by rivers and wind; the quartz grains provide the main component of the sea sand of our beaches, roughly two-thirds. In other parts of the world, the proportion derived from shelly matter may be a half, while on some beaches in Southern USA the sand may be composed entirely of shell or coral and is thus practically pure calcium carbonate.

Near the actual edge of the waves the sand is more fine-grained than elsewhere, grading between .05 (one twentieth) and .5 of a millimetre but higher up the beach and in the dunes the particles tend to be larger, between .5 and 2 millimetres in diameter. Seen under the microscope, the two components of beach sand can be easily distinguished; the quartz grains are in general smaller, more rounded, translucent and light coloured, like small uncut diamonds; the shell fragments or calcareous part, are larger, more flattened, subangular, dull and opaque. The grains are of different colours and in some cases show the ribbing and pitting of the structures when alive.

The attractive whiteness of our beaches is due to the preponderance of quartz grains in the sand but as we go eastwards and northwards they become increasingly reddened due to the influence of the prevailing red soils of tropical Africa; the red colour is provided by a layer of iron oxide coating each individual grain. In some parts of the world, such as volcanic islands, the beaches may be almost black, as the sand grains consist of decomposed basalt or other dark volcanic rocks; in others the beaches may be composed of green sands due to the inclusion of the mineral glauconite.

Whatever the colours of the sands, the substances which compose them, born of both wind and water, are mysterious and infinitely variable, each grain on the beach the result of processes which go back into the shadowy beginnings of life or of the earth itself.

(Ack: The Kowie Announcer, Port Alfred, Nov. 1974)

IN THE NEWS...

The following are excerpts from articles submitted by Cherita and Ernie Stark.

NEW YORK TIMES 2/3/91 in ENVIRONMENTAL UPDATE

Scientists are discussing how, in the long run, the Persian Gulf oil spill may be less than disastrous. Because the oil has been at sea for more than a week, they say, sunlight, waves and wind have already caused its most toxic chemicals to evaporate. The rest has probably become a mass of floating tar. Although the oil will still make an unsightly mess if it hits land, it will probably float over coral reefs and not poison marine life, scientists said, although spoken with caution because of the enormity of the spill.

The Persian Gulf, which is more than 600 miles long and 200 miles across at its widest point, is particularly vulnerable to large oil spills because it is shallow, almost closed off by the 50-mile wide Straits of Hormuz, and saltier than oceans, making it a more hostile environment for coral reefs, some species of fish, and other animals. Nevertheless, scientists said, the gulf sustains an abundance of wildlife because it is largely undeveloped. The gulf supports 180 species of molluscs, 106 species of fish, 450 species of animals that live in the chain of coral reefs stretching down the Saudi coast, five species of dolphins, at least three types of whales, and many species of sea birds.

Saudi officials were also concerned with the fate of two rare species, the green and hawksbill turtles that live on the offshore islands as well as the Socotra cormorant, a species of seabird found nowhere else. The birds have no natural defences against fresh oil and appear to disregard it when diving for food, thus becoming drenched in a lethal black coat.

Although science has just begun to rigorously study the environmental effects of large oil spills, research that has been conducted in Panama since 1986 suggests that nature has an impressive ability to protect itself. The study, undertaken by the Smithsonian Institution under contract to the Mineral Management Service, a unit of the Dept. of Interior, began after the rupture of a storage tank at a refinery owned by a subsidiary of Texaco. Some 50,000 barrels of crude oil spilled into a sensitive coastal area near the Carribean entrance to the Panama Canal.

The oil flowed across a coral reef killing everything in its path, according to Dr Brian D. Keller, an ecologist at the Galeta Marine Laboratory near Colon, Panama. It also poured into a mangrove habitat, smothering the roots of thousands of trees and killing them. Mussels, oysters, fish, reef plants and marsh grasses died in the flood of oil in the weeks following the rupture.

Nearly five years later, he said, young trees are growing in the mangrove habitat although oil continues to seep from the sediments into the ocean. Fish, plants and other organisms have returned to their normal numbers to the coral reef. The living coral on the reef, however, has not yet recovered. Before the spill, Dr Keller said, 30 percent of the reef was composed of living coral, a tiny animal. Today, just 5% of the reef is alive and if the reef does not recover, it will not withstand the eroding action of the sea.

(Ack: Irradians, USA, Vol 18, No 8, April 1991.)

And from Lynn Rubinowitz comes the following newspaper article (2/7/89) which was sent to her from Australia.

FAMILIES FLEE AS FISH FALL ON TOWN

Brisbane: Families caught in a violent storm ran for cover when they were showered with sardines.

Residents of Rosewood near Ipswich thought the world was coming to an end when fish fell from the sky on Sunday.

Debra Degen was walking from a neighbour's when she was suddenly surrounded by scores of squirming sardines.

"I thought my husband was playing a joke but when I looked around my front lawn, they were everywhere," she said.

"I heard a noise which I thought was hail but after 10 seconds, I realized the hail was, in fact, sardines".

GETTING THERE

by
E Dee

Our trip down to Umtata was marred by thick fog on the road from Kokstad on, and after meeting Hazel Jefferies at the Shell Garage we had a nightmare drive of 64 miles of thick fog, 24 miles of which were on tarmac, and then, oh dear, on a gravel road - no lines or cats' eyes to guide one. The mist at times was like pea soup and to crown it all, cattle wandered about on the road and someone had left their car in the middle of the road with no lights on - in braking I nearly shot Hazel through the windscreen.

We arrived, the Claphams and my party, at the Haven at 10.30 pm to find all in darkness, but soon found the owner and were shown to our very comfortable accommodation, waking in the morning to bright sunshine.

In spite of it all, our trip was very worthwhile - made so for me by Vic Clapham's remark on the far beach - "Well, this is the first beach I've ever visited where the shells really are ankle deep", and Lynn our student member - "Ed, there are so many shells here, what does one collect?" ... and even in spite of a shark's dorsal fin collected and parked in the boot by Lynn, which reminded us on our homeward jouney that it was with us all the way!

(Ref: The Conchological Society of Southern Africa Circular No 90, Oct 1967)

IN THE NEWS...

The following article is reprinted from the New York Times, 25/10/87

EXOTIC FARMING ON REMOTE SHORE

In a remote corner of Maine, where farming means potatoes and lobster is king, a group of coastal residents is harvesting a different sort of crop: seaweed.

Divers for Maine Coast Sea Vegetables ply the ocean bottom off Franklin, ME at low tide, scraping their produce off the rocks and beds where it grows. Once the weeds are plucked, they are hung on clotheslines to dry. The dried strips are picked over for shells and tiny shrimp, then weighed and packaged.

The founders of the company, who have been dredging four types of algae from the state's rocky waters since 1971, saw that the salty taste of seaweed takes a little getting used to, but that nutritional benefits make the trial period worthwhile.

Sprinkled on garlic bread, crumbled on a salad or baked in a shepherd's pie, seaweed, they say, is a high-vitamin, low-calorie dietary staple for devotees.

According to Shepard Erhart, president of Sea Vegetables, the company, which operates out of a ramshackle barn in the rural community, will produce and distribute 13 tons of seaweed products around the country this year (1987), mostly to health food stores. Seaweed is a common food in Japan, but sales of it in America have been light, although bolstered recently by the popularity of sushi.

Of the 8,000 species of seaweed, Sea Vegetables harvests four that are considered the most flavourful: kelp, which can be eaten pan-fried, pickled, boiled or marinated; dulse, which can be turned into a chowder; Alaria, which makes a soft and chewy succotash, and nori, which has a mild, nutty taste.

"Nori is the caviar of seaweed," said Karen Hill, who prepares and packages seaweed for Sea Vegetables. "You can eat it like potato chips, straight out of the bag".

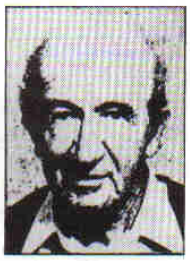
Ed. Note: Now all we have to do is find out what they do with all those shells they shake off the seaweed they harvest!

A LETTER TO THE EDITOR

I hold a copy of 'Marine Molluscs of Mauritius - 1985' which contributes further to what Margie Stuart had to say in her letter in Strandloper 229. It's not only a question of 'lack of access to lovely species' but the need to be very careful about what you may buy. One vendor who approached me assured me that he personally had collected locally a tropical west American species *Cypraea cervinetta*. In the foreword to 'MMM' the authors have noted that "the shells which currently abound in shell shops are imported from abroad to give tourists 'souvenirs from Mauritius' but there are still some local shells being collected".

N.E.M. Newman

PERSONALIA



Mr 'Noggs' Newman of East London began his shelling career when he discovered the 'Golden Mile' at Xora River Mouth in March 1978. From then onwards there was no turning back for him. He has lately had a Muricid shell - *Ocenebra newmani* named after him by his friend Felix Lorenz jnr. of Germany.

He is presently secretary of the Border Shell Club (BSC) - now in his 11th year in that office. The BSC is affiliated to CSSA. Its predecessor, the Border and Transkei Group, was founded in 1963 at the instigation of the then Director of the East London Museum - Dr Marge Courtenay-Latimer. Mr Newman is a long standing member of the Board of Trustees of the East London Museum. He helped move the headquarters of CSSA from Cape Town to Durban. For some months in 1985 he held every top job in CSSA except President and Editor!

He is an Officer of the Most Excellent Order of the British Empire (O.B.E.). At one time or another he was President of the SA Shipping and Forwarding Agents' Association, Founder President of the Association of Round Tables of SA, a city councillor, the Honorary British Consul, President of the Rotary Club of East London, Chairman of the Senior Citizens' Association, Founder Chairman of NSRI Station No 7, President of the Senior Golfers' Society of the Border, local director of the Natal Building Society (for 32 years), Chairman of NICRO (EL) and in Grahamstown a member of the Council of the 1820 Foundation.

His present outdoor interests include shell collecting, light-tackle river fishing, and golf. He and his wife Doro have been married for 53 years.

SOUTHERN AFRICAN SEAWEEDS

by
Dr Georgina Lambert

DERIVATION OF THE TERM "SEAWEED"

"Seaweed" is derived from the Greek word "alga" which means "plants that live in the sea". Algae (plural for alga) exist in every habitat with moisture, nutrients and sufficient sunlight, but the seaweeds live only in marine and estuarine conditions, not on land nor in fresh water.

THE THALLUS

The algal plant is called a THALLUS, meaning that it has no true roots, stems or leaves as do flowering plants in our gardens. Algae vary greatly in form, shape and size. Some of the microscopic members like diatoms and dinoflagellates conform to very beautiful intricate geometrical designs but they are phytoplankton, not seaweeds, as they float or swim in the water at the mercy of the wind and the waves. Seaweeds are larger, visible plants that are anchored to rocks and plants or animals, and range in length from a few millimetres to as tall as trees.

The seaweed's attachment organ is called a holdfast which is merely an anchor. Roots of land plants not only serve as anchorage organs, but also absorb water and nutrients from the soil. A seaweed taken from the rock will never re-attach. The plant will die, but fragments may break away and grow. The aerial portion has "stems" or stipes from which arise "leaves" or blades. Stipes and blades have three basic functions, which are to absorb water and inorganic nutrients over the entire plant surface; to manufacture organic nutrients using sunlight, carbon dioxide gas dissolved in the seawater and water; and they are the principal organs for reproduction. Most garden plants produce beautiful flowers that are pollinated by insects or the wind and in time seeds develop. Algae, including seaweeds, reproduce by means of spores and microscopic male and female sexual structures

CLOSE RELATIVES

In the Plant Kingdom, the closest relatives of algae are the fungi. In the Animal Kingdom the closest relatives that we can recognise on a rocky shore are the sponges.

ALGAL PIGMENTS

Algae are brightly pigmented plants ranging through all the colours of the spectrum. The universal green pigment chlorophyll is ever present but may be masked by red, brown, yellow and blue-green pigments. Based on these pigment combinations, fourteen algal groups or Classes can be recognised, but a visit to the seashore will soon reveal to the observer that the seaweeds exist in only 3 of these colour combinations: green, red and brown. The bright grass-green seaweeds are classified in the algal Class Chlorophyceae due to the dominance of the pigment chlorophyll. The yellow to brown seaweeds occur in the Class Phaeophyceae because the chlorophyll is masked by a brown pigment called fucoxanthin. the red seaweeds of the the Class Rhodophyceae, just to confuse us, can range in colour from blue-green (essentially green) through many shades of pink to red to maroon. The "greenish" red seaweeds have the blue-green pigment phycocyanin predominating, whereas the pink to maroon plants have the red pigment phycoerythrin dominant.

MARINE ASSEMBLAGES ALONG THIS COAST

The southern African coastline is about 2 800 km long. The east coast is washed by the warm southward flowing Mozambique current, the southeast coast by the Agulhas current and the west coast by the cold northward flowing Benguela Current. Based on water temperature and current flow patterns three principal floral and faunal marine communities can be recognised.

1. A community of tropical and sub-tropical species which occur from the eastern Cape north to East Africa.
2. A warm temperate assemblage characteristic of the S.E. and S. Cape.
3. A cool temperature community that extends from the S. Cape to as far north as the Benguela Current has its influence.

Only the seaweeds of the Natal coast will be considered in this paper.

ESTUARINE SEAWEEDS

The Natal coast is well endowed with estuaries, many of which are fringed with mangroves. Estuarine aquatic organisms are well adapted to tolerate brackish water, tidal fluctuations and occasional flooding. The sediments are muddy and anoxic to which trees, like the white mangrove *Avicennia marina*, have adapted by sending up vertical breathing roots. A careful look at these pneumatophores will reveal they are covered with a felt-like coat of small maroon plants collectively called the Bostrychietum. It gets its name from the predominance of the red seaweed genera *Bostrychia* (Fig. 1) and *Caloglossa* (Fig. 2), but in fact the turf is an association of a host of red, brown and green seaweeds, phytoplankton and blue-green algae.

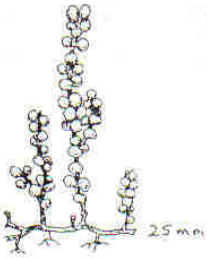
THE ROCKY SHORE

Research at Isipingo and Reunion Rocks during the 1930's and 1940's introduced to marine science the concept of intertidal zonation of rocky shore communities, which is now a universally accepted phenomenon (Eyre & Stephenson, 1938; Jackson, 1976; Lambert & Steinke, 1986). In Natal there are 6 identifiable communities named after the

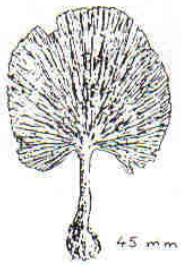
SOUTH AFRICAN SEAWEEDS

Bostrychia binderi (1)

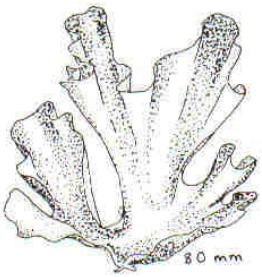
Caloglossa leprieuii (2)



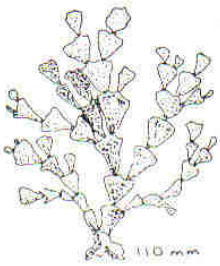
Caulerpa racemosa (3)



Udotea orientalis (4)



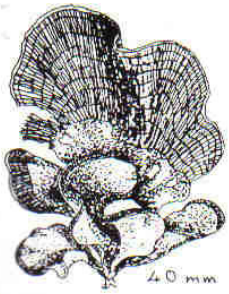
Ulva sp. (5)



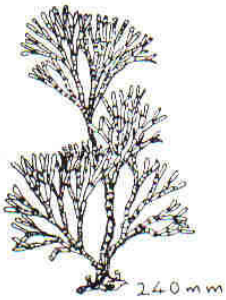
Halimeda cuneata (6)

Padina boryana (7)

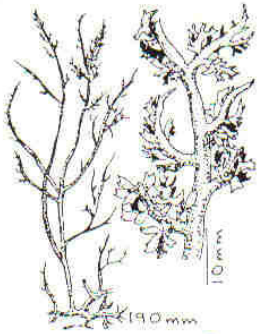
Sargassum heterophyllum (8)



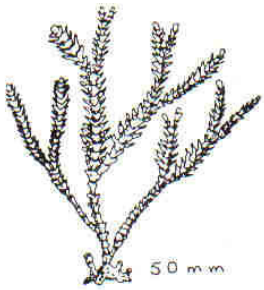
Martensia elegans (9)



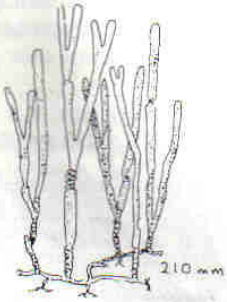
Amphiroa ephedraea (10)



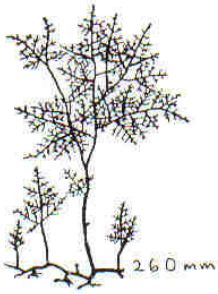
Hypnea spicifera (11)



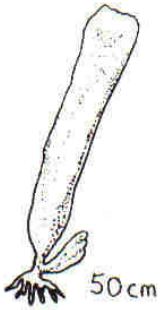
Chielosporum sagittatum (12)



Caulerpa filiformis (13)



Gelidium abbottiorum (14)



Ecklonia sp. (15)

Thalassodendron ciliatum (16)

dominant organisms, namely: Littorina, Crassostrea, Upper and Lower Balanoid, coralline algal, Mussel and Infratidal. Seaweeds natural habitat is seawater, so what establishes on a rocky shore is really that flora which can withstand the rigours of exposure to terrestrial conditions at least daily during the low tide. These particular species exist then at their uppermost limit of distribution.

The Littorina Community: is the most landward and receives wave spray only during high springs, that is, for a brief while every alternate week. The dominant animal is the tiny mollusc Littorina, which can be counted in hundreds, and which feeds on microscopic blue-green algae, bacteria and fungi. The rocks may appear bereft of life but in fact they are covered in these important micro-organisms. The Bostrychietum also occurs as dark maroon turfs in shaded crevices on the verticals. They exist there because they can tolerate extremes of temperature, salinity and desiccation.

The Crassostrea and Upper Balanoid Communities: are more terrestrial than marine in the physical sense for they briefly receive wavewash only during high tides but not always daily. The seaweeds form a thick, dense turf often bound with sand which can hold moisture during the long hours of exposure. In the deeper pools some highly modified seaweeds exist. They have no particular shape and form crusts over the whole surface. They are pink crusts of the red alga Lithothamnion sp. and the brown, leathery crusts of *Ralphsia expansa*. Both crusts and turf are grazed upon by a veritable army of molluscs. These include patellids, particularly *Cellana capensis* and *Patella concolor*, which often leave distinctive bare patches amongst the algal turf. Other common grazers here are the tiny mollusc *Oxystele tabularis* and starfish *Patiriella asterina*. The false limpet, Siphonaria, actively forages during low tide but moves back to a home scar when submerged.

The Lower Balanoid Community: is washed by wave action every high tide and is submerged during springs. The crustose algae *Lithothamnion spp.* and *Ralphsia expansa* abound here and the pools support a host of plant and animal life, which can withstand water temperature variation, heavy wave surge and sand scour. The seaweeds tend to be small.

Amongst the green algae, *Caulerpa racemosa* forms grape-like clusters (Fig. 3). *Udotea orientalis* has a fan-like blade and its holdfast is embedded deep in sand (Fig. 4). Ulva, commonly known as the sea lettuce, abounds in shallow rock pools and is a food haven for the sea hares *Aplysia spp.* (Fig. 5). *Halimeda cuneata* has a large fibrous holdfast and the blades are formed of articulated triangular segments joined end to end (Fig. 6).

Foliose brown algae are not abundant along the Natal coast. *Padina boryana*, like *Udotea orientalis*, has a fan-like blade periphery of which is inrolled to protect the growing structures (Fig. 7). In deep rock pools *Sargassum heterophyllum* may be found, which is plant-like in appearance with holdfast, stipe and blades, and flotation is achieved by means of gas bladders (Fig. 8). Sargassum derives its name from the Sargasso Sea where the plants of this genus are planktonic and support a unique fauna.

Of the red algae the most conspicuous is *Martensia elegans* which also has a fan-like blade to withstand wave action (Fig. 9).

The Coralline Community: is washed by wave surge all the time and is exposed briefly during low springs. Bright warm sunny days, delightful for we humans, prove a hazard to these seaweeds. Their pigments break down and there is a general die-back as the plants cannot withstand the heating and desiccating conditions. On such days this community looks distinctly bleached.

As the name implies, the dominant plants are coralline or calcareous red algae. An example is *Amphiroa ephedraea*, which has articulated blades with distinctive alternate long rigid pink and thin black segments for flexibility to withstand wave surge (Fig. 10). The packing of tissues with calcareous minerals renders these plants unpalatable to predators. An example of a "green" red alga is *Hypnea spicifera* which is heavily predated by fish (Fig. 11). The plants always show signs of being cropped, and form bright green patches just below the mussel belt.

The Mussel Community: is dominated by dense patches of the brown mussel *Perna perna*. Mussels have the crustose algae, Lithothamnion spp. and *Ralfsia expansa*, growing on their valves and another coralline red alga called *Chielosporum sagittatum* (Fig. 12).

The Infratidal Community: The lowest part of the intertidal is emergent for a few seconds at a time during low springs. This is a truly marine environment and consequently the seaweeds are luxuriant and dense. The grass-like green alga, *Caulerpa filiformis*, abounds in dense patches (Fig. 13). The red alga, *Gelidium abbottiorum* is conspicuous by its maroon bird's nest appearance upon which a host of seaweed epiphytes grow and small invertebrates shelter (Fig. 14). A single plant of a related species, *Gelidium pristoides*, which occurs in the Cape was found to shelter no less than 29 species and nearly 2000 animals.

The Subtidal Communities: The deep subtidal seaweeds offshore include an interesting, luxuriant and very diverse flora. Reefs subjected to sand scour and deposition are dominated by coralline red algae. Reefs relatively free of sand influence support an exquisite flora of red, brown and green species that may be seen in seaweed drifts that wash in-shore after heavy seas or storms. The deepest seaweed on record is the brown alga, Ecklonia sp., which was collected at 60 m depth off Sodwana Bay (Fig. 15). The genus is better known on the Cape west coast where the plants grow as tall as trees. At a depth of 60 m the sun-light quality is about 1% that of the surface. This brown plant contains the dominant pigment fucoxanthin which has the ability to absorb the diminishing light for the process of photosynthesis, at about the greatest depth that plants can exist.

A FINAL TWIST TO THIS TALE

Not all marine plants are seaweeds, for some have roots, stems, leaves, flowers and seeds just as those in a garden. Such a plant is *Thalassodendron ciliatum*, a marine angiosperm, which is a tropical species and an important food resource for dugongs (Fig. 16). Its

most southern limit of distribution along the east African coast is at Mapelane in northern Natal. Further north it can be found interspersed amongst seaweeds in the shallow bays.

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N.B. All figures, except Fig. 15, are reproduced from SEAGRIEF, S.C. (1980). Chapter 4. Seaweeds of Maputaland. In. Bruton, M.N. & Cooper, K.H. Studies on the ecology of Maputaland, published by Rhodes University and The Natal Branch of The Wildlife Society of Southern Africa, pp. 18 - 41.

Southern Natal Group

The August meeting of the Southern Natal Group was their Annual General Meeting. After more years than he cares to remember, Geoff Wallace has relinquished the chairmanship and this post is now very ably filled by John Cuncliffe. John's better half, Blanche, is the incoming treasurer. Marina Lake wil continue her good work as Secretary and can be contacted at telephones (0391) 22888 during office hours and (0391) 22672 at home. Her address for correspondance is. PO Box 1865, Port Shepstone, 4240. The Group continues to hold regular monthly meetings on the fourth Saturday of every month and outings were held at the Mangrove swamps in Durban Bay and at mZamba in the Transkei.

SHELLS

An extract from 'Green Dolphin Country' Elizabeth Goudge - noted by Ruth Kirkpatrick

There was not one Shell the same ....

Some were no larger than a pin's head but each was as intricate and perfectly fashioned as though it were a world all to itself. Some had the shape of wool upon the distaff, tapering to a fine point.

Others were like rose petals delicately hollowed.

Some were like the caps of elves and others like drops of dew. Each cup or spiral had its own perfect veinings of featherlight radiation: each line - perfect in Grace - drawn by a brush that had never faltered. Their pale flower-tints were as various as their shapes; lemon flushed with salmon-pink - dove-grey lined with mother-of-pearl - pale amethyst powdered with green points of fire - saffron, turquoise, and rose and smoky-orange spotted with pale warm brown like the breast of a small bird ...

NOTES ON PRESERVING AND STORING SMALL SHELLS

The following is an extract from notes by John S. Hutt of Port Alfred, published in Newsletter No. 10 dated November 1959.

When small shells have been sorted out from the broken fragments of their larger relatives, they need a further washing in fresh water to ensure the removal of the last traces of salt. When the wash water has been drained off, it is not an easy matter to dry these infants, but by washing them once again in a "Benzine-Wax" mixture, they are not only dried, but also coated with a microscopically thin film of wax,

To make this mixture, take an ordinary paraffinwax household candle and scrape off a tablespoon of thin shavings of wax. Put this in a 250ml bottle of benzine and shake until dissolved.

Your pre-washed small shells can then be put into a wide mouthed jar with some of this liquid and shaken gently to coat them. Then you can spread them onto a paper towel for the excess waxy mixture to drain and evaporate off, after which the shells will be ready for labelling and storage.

HONORARY TITLES

The title of Honorary Life Member is awarded to someone who has made a special contribution to the Society and to conchology in general.
Life Membership is given to someone who has had 25 years unbroken membership in the Society.

Exchanges

Mr. S.Y. Chan of 79 Jalan Girang, Singapore 1335 would like to exchange seashells, land and freshwater as well as marine with South African collectors;
Mrs Betty Jean Piech, 211 N. Augustine Street, Wilmington, DE 19804, USA would like to exchange Cymatiums with South African collectors;
Dr. Alberto Pinto, Av. Alverez Thomas 3023, Beunos Aires, CP 1431 Republic of Argentina would welcome SA shells for Argentinian shells.

Southern Natal Group's Exhibition

The Southern Natal Group recently held a very successful exhibition in the Margate Town Hall. The exhibition was officially opened by His Worship the Mayor of Margate, Clr. J. de Wet, who then entertained all exhibitors and many invited guests to a cocktail party.

There were 42 displays of shells as well as an aquarium with live shells. The standard of the exhibits was very high and ranged from the strictly scientific to the purely decorative. All were equally appreciated by the public who demonstrated their response by the very gratifying comments in the visitors book.

On display were shells ranging from a very clever display of micro-shells (with accompanying magnifying glass) by Kaye Eastwood to the larger shells such as Charonia tritonis and Syrinx aruanus belonging to Martin Wallace.

The mother and son team of Margaret Johnstone and Ken Borland had 7 large trays on show containing shells collected on their trips to countries all round the world and also one valve of a Tridacna gigas which required three healthy individuals to carry into the hall. The aquarium was also set up by Ken. Lawrie and Jeanette Coleman had a display of 23 species of Cypraea from Pennington Beach. Linda Smith, Adrienne Edgeson and Olive Meyer also had excellent displays of shells found on the beaches in the Park Rynie area. Maureen Purdon's collection of beach shells titled " You don't have to kill to collect" was one of the favourites amongst the general public, and rightfully so! Barbro Hooper's shells from East Afrisa, collected when she was resident in Kenya, attracted a lot of interest too.

To single out individuals and displays is very difficult, but amongst the others were, Olividae (Barbara Fouche), Lambis (Dawn Brink), Trochidae and Shells from Durban Bay (Markus Lussi), Patellidae and a display titled, "Beautiful, but oh so Fragile " (Cynny Harris), Volutes (Lambert Family), over 150 species of Cypraeidae (Martin Wallace) which included an excellent Cyp broderipi! In her usual generous way, Olive Peel lent us several of her shell drawers including excellent collections of Conidae and Muricidae amongst others.

The display voted by the public as the most striking was "World-wide Bi-valves" by Val van der Walt.

Also on display was a selection of paintings of shells by "Sarben", alias Jock Barnes. The Natal Parks Board and the Oceonographic Research Institute also contributed to the exhibition by way of very interesting and informative posters and photographs which all helped to make the show just that much more colourful and attractive. Dawn Meyer and Val van der Walt set up a table with shells for sale which was a hit with the public.

Although the exhibition was organised by the South Coast Group, recognition must be given to the tremendous support we had from the Durban Group. Their willingness to help was wonderful and very much appreciated.We are already planning another show again for next year, but during the December holidays.

Shell identification

If any members would like SA shells identified, Olive Peel wold be most happy to do this if they would send not more than 30 species at a time to her and include with them reutrn postage and brown paper for re-wrapping.

Natal Midlands Group

Dr Dai Herbert gave a very interesting talk to members on his and Dr Kilburn's tour to Mauritius.

Durban Group

Gail Carcenac was elected Chairman, Olive Peel Secreatry and Dawn Brink Treasurer at the Annual General Meeting. Members donated a collection of shells to the Parks Board to be displayed at their new Treasure Beach offices which is on display for the public to view.

Border Shell Group

The new committee is as follows:
Chairman - D.J. Hodgkinson
Secretary - Noggs Newman
Assistant Secretary - Mary Bursey
Treasurer - Natalie Russell

MOLLUSCAN NOMENCLATURE: AN APPEAL FOR SANITY

by
D. Freeman, Cape Town

There is a saying: "The more things change, the more they remain the same."

While reorganising a few trays of shells in my collection recently, I was becoming irritated at having to change generic names on some labels. Later, I happened to page through some of the Society's thirty-year-old newsletters and was charmed to come across sympathetic remarks published in the EASTERN PROVINCE & NATAL SUPPLEMENT for June 1961, which I am quoting in full.

In those days Port Elizabeth contributed much to the life of the Conchological Society, and to conchology in general. Mr D.H. Kennelly was at that time living in Uitenhage. Shortly thereafter he moved to East London where he became curator of molluscs at the E L Museum. Dr A.C. van Bruggen was then in Port Elizabeth, and he also moved, in January 1962, to Pietermaritzburg where he joined the staff of the Natal Museum. It is interesting to note that one of the Society's junior members, one R.N. Kilburn, was at that time also living in Port Elizabeth and was about to enter the Natal University in Pietermaritzburg.

REMINISCING

Strandloper No 171 April/May 1975

Intertidal Talk

With this issue of The Strandloper we take another step towards the improvements which were promised some time ago. Number 121 saw the adoption of our motif, *Afrivoluta pringlei*, and the change to the metric size paper. Number 141 saw the adoption of the name "The Strandloper" and now we go into print. The Society has grown somewhat since it was founded in May, 1958 with a membership of 31. Today we dispatch 324 copies of The Strandloper each issue, a number which we hope will soon increase considerably.

Are The " New " Generic Names Reliable?

by
D.H. Kennelly

In common with shell collectors and students of Mollusca everywhere, I have become rather bewildered at the fearful and wonderful increase of new generic names during the past thirty years. This "infection" appears to have started with the larger genera, such as Cypraea and Conus. It has now spread, and practically every one of the old genera, and even the smaller ones with few species, have been split and new generic names published. Fortunately this situation has now roused some scientists to action and investigations are in progress.

I have before me a copy of a new publication, "The Cowry", Vol 1, Part 1, Dec 1960, edited by Lt Col R. J. Griffiths of Cornwall, England, who specialises in the Cypraeidae. In this small publication, there is a chapter headed "Genus", from which I append the following enlightening extract:

"Early taxonomists created genera for one or two groups. Then intermediate forms complicated the position, and it was found necessary to name fresh genera to cover them. The result in recent years has been a riot of new generic names, which has served only to complicate nomenclature and to confuse collectors.

"This increase in genera is shown for the 170 or so species of Cypraeidae in the following table:

Author	Year	No of Genera
Reeve	1845	1
Thiele	1931	8
The Schilders	1938	26
Iredale	1939	40
Steadman & Cotton	1946	61

"Even on study of the shell alone, many collectors became doubtful of the use and even of the existence of this large number of genera. Then in 1959 Alison Kay published the results of her study of the anatomy of about 60 species of the Cypraeidae. She found no dissimilarity between the anatomy of species in the various "genera". More than that, the only anatomical feature showing pronounced difference through all the species examined, cut right across the existing genera. Her conclusion was that the genera established on shells alone were incorrect, and should be discarded. With this, the editor [i.e. Col Griffiths] wholeheartedly agrees.

"Of course this does not mean that further work will not lead to the establishment of some reliable genera. It simply means that no such evidence has so far been found, and that it is best at present to use the generic name Cypraea for all species of Cypraeidae."

In view of the foregoing, it is obvious that the new generic names now in vogue (which split the older, well known genera) may well all be discarded for the time being, as causing unnecessary complication and confusion. The time has come for the whole question to be gradually investigated, genus by genus, and reports of the findings published. Then collectors will know which names may be accepted as correct.

BOOK REVIEW

SEASHELLS OF SOUTH EAST ASIA

R Tucker Abbott (Tynron Press, Scotland, 1991) $14.95

This little book is compact and yet abounding with fascinating information on the shells of Malaysia, Vietnam and Thailand. Marine conservation is discussed as well as ancient Asian mariculture and ecological shore zones. It is an excellent guide to over 400 common molluscs of Southeast Asia, and is at the same time a useful guide for beginners and also gives all the common names of the shells described. There are 52 full colour plates beautifully and clearly illustrated. Obtainable from: American Malacologists, PO Box 1192, Burlington, Mass 01803, USA.

Dr Abbott has served as a research scientist and field collector for 40 years at Harvard University, the Smithsonian Institution and the Academy of Natural Sciences of Philadelphia. He has led many expeditions to the South Seas, the West Indies, Africa and China in search of shells. Amongst his most popular books are Seashells of the World, Kingdom of the Seashell and lately Compendium of Land Shells and Compendium of Seashells which he co-authored with S Peter Dance

NEW BOOKS

by Tucker Abbott

Seashells of Southeast Asia, a 52 colour plate guide to the marine molluscs. An identification book to 461 common tropical Asian species. $14.95

Living Shells of the Caribbean and the Florida Keys with 60 colour close-ups of living mollusc animals by Robert E Lipe. 80 pages, covers over 300 common and rare species of the West Indian region. $8.95

Shells, a huge coffee-table presentation of superb photographs. $19.95

Seashells Photo Postcards - 24 removable postcards. $4.95, sold for charity.

The 1990 World Size Records. $8.50

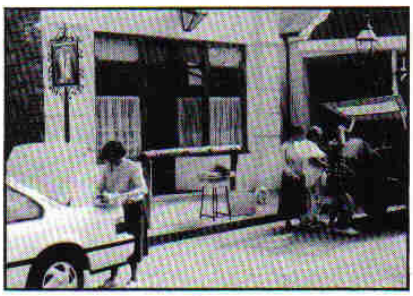
Seashells of the Northern Hemisphere, coverage of cold water species. $24.95

(Available from Cynthia Abbott, P O Box 1192, Burlington, Mass. 01803, U.S.A.)

The Strandloper Museum:

Seven of us headed for Johannesburg on Tuesday 24th September to assemble all the shell and coral exhibits at Gold Reef City. I was pleased at my first sighting of the outside of the museum and also the inside. Soon we were all at work arranging the shells in the cabinets. The people who donated shells are: Olive Peel - about 13 exhibits plus a cabinet of corals and large shells plus two long shelves of big shells, Ophia Austen - a double exhibit, manificently displaying beached shells; the following persons one exhibit each: Roy Aiken, Val van der Walt, Markus Lussi, Barbara Fouche, Peter and Eunice Coetzee, East London Museum and Border Shell Club, Sid Hancock, Olive Meyer, Lawrie and Jeanette Coleman, Alan Limpus and Thora Whitehead of Australia, Deirdre Richards. Henriette Botha, The Bloemfontein Group donated the magnificent visitors book. Wall exhibits were done by Geoff Wallace, Brian Botha, Jock Barnes, Olive Peel, Debi Gallery.

Ophia Austen was responsible for getting the museum ready for the shells and corals - a marathon task indeed. The opening went off well and I was allowed to cut the ribbon and open the door. All the hard work was well worth the trouble. Anyone visiting Johannesburg should make a point of seeing our museum. The workers who assembled the museum were : Olive Peel, Ophia Austen, Peter and Eunice Coetzee, Theresa Coetzee, Noreen and Les King, James Christenson. O.P.



Off loading outside the museum. Noreen, Theresa, Eunice, Peter, James

ERRATA: - No 230

Page 1: Caption should read 210mm
Page 4: Interchange the 2 photographs
Page 6: The photograph was printed the wrong way around. The caption therefore should read:
Fig 1. Top row: *Magilus antiquus, Martesia striata, Spengleria mytiloides* and *Gastrochaena cuneiformis.*
2nd row: *Petricolor bicolor* and *Diplodonta sp.*
3rd row: *Lithophaga obesa* left and *L. malaccana* right.
Page 9: Valarie van der Walt was awarded Honorary Life Membership.
Page 10: Honorary Life Members should read Life Members.
One day I will get these two titles correct! O.P.
Page 11: Markus Lussi's phone number is (031) 848057.

OFFICIAL ADDRESS OF THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA

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