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FRONT PAGE

Leporicypraea rosea aliwalensis

Lorenz, 2002 on eggs

Image: Valda Fraser

OPPOSITE PAGE

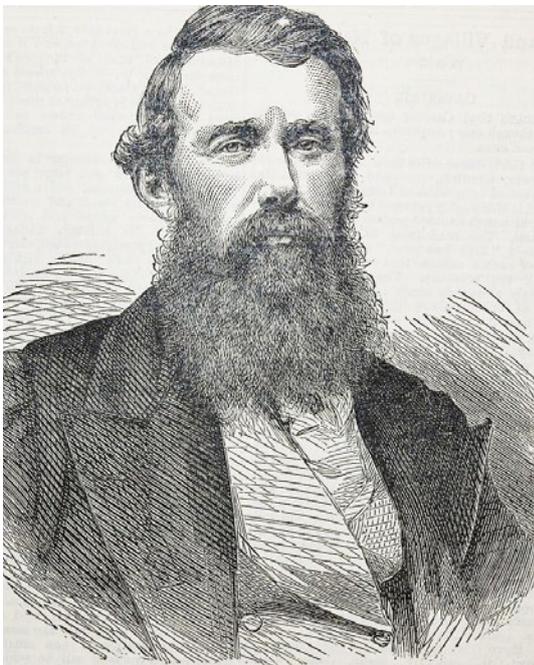
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LOOKING BACK INTO THE PAST

by Ken Brown



John Speke



David Livingstone

On a recent trip to the Natural History Museum in London I came across two recent acquisitions by the museum. These were the freshwater and landshell collections of two famous colonial explorers during their travels in Africa: David Livingstone and John Speke.

It was an odd feeling, handling specimens collected by these great figures from history, knowing the rigours and travelling conditions required to collect the shells.

The first collection of shells I examined was a joint participation by Livingstone and his official scientist cum naturalist and expedition doctor John Kirk, during Livingstone's second expedition to central Africa which began in February 1858. The journey began at the mouth of the Zambezi, from where they followed the river upstream to Victoria Falls. In September 1859 they reached Lake Malawi. Along the way Kirk collected many specimens of plants, animals and zoological specimens, but a large proportion were lost when his canoe overturned some time in 1860. He had a great breadth of interest and knowledge and wrote many papers on subjects as diverse as geology, hydrology, climate, lilies, birds, antelope, bats and many more. Later, as Consul General in Zanzibar, he was instrumental in stopping the Arab slave trade in East Africa.

The expedition lasted until the middle of 1864. Expedition members recorded

that Livingstone was an inept leader incapable of managing a large-scale project. He was also said to be secretive, self-righteous, and moody, and could not tolerate criticism, all of which severely strained the expedition and which led to Kirk to write in 1862:

“I can come to no other conclusion than that Dr Livingstone is out of his mind and a most unsafe leader”.

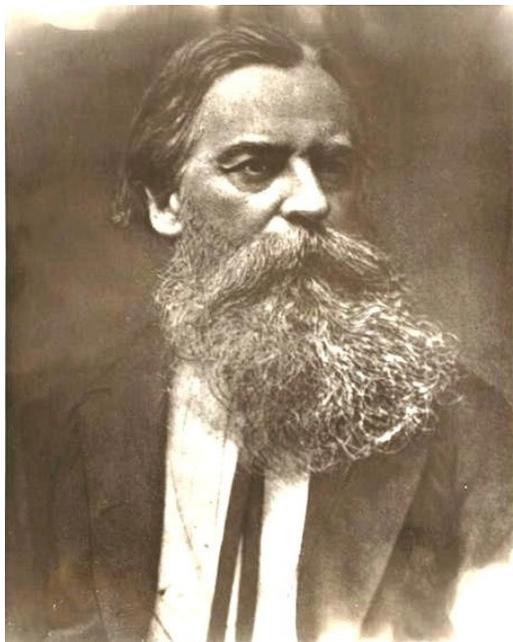
The renowned naturalist and painter Thomas Baines also accompanied the expedition, and provided a number of wonderful paintings of the journey. He too fell out with Livingstone, being unjustly dismissed from the expedition for theft. Whilst the expedition highlighted many of the flaws in Livingstone and was regarded as a failure, and was also a personal tragedy for Livingstone in losing his wife Mary in 1862 to malaria in northern



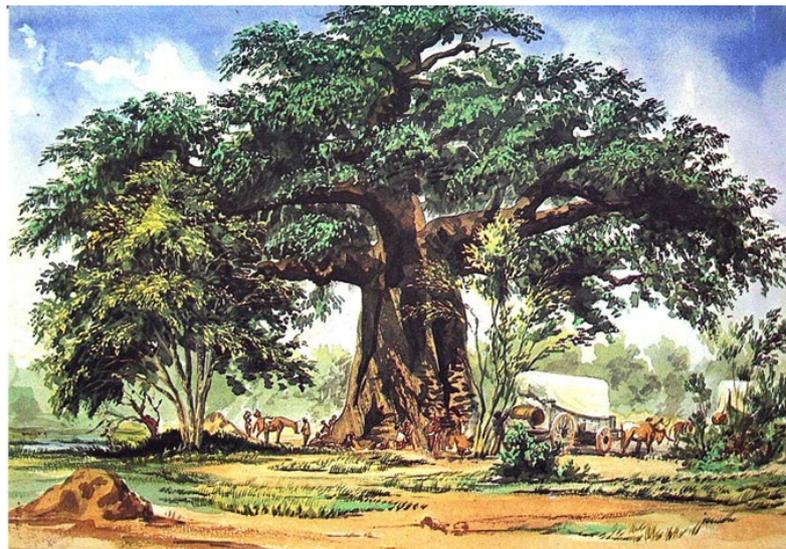
The Victoria Falls as sketched by Thomas Baines and published in 1865



Mozambique, it nevertheless characterised the indomitable spirit of the early explorers and their insatiable quest for knowledge and discovery. I have enclosed a number of photographs of Livingstone and Kirk's specimens collected during



Thomas Baines (1820 - 1875)
English artist and explorer



Sketches by Thomas Baines

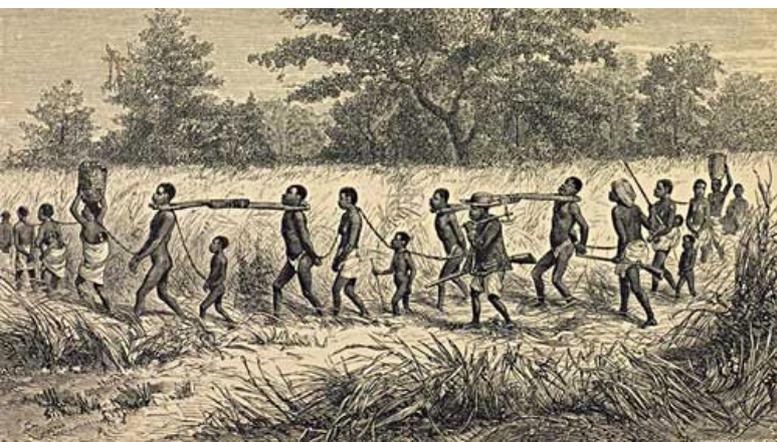
Top: Boabab tree

Bottom: The falls by sunrise

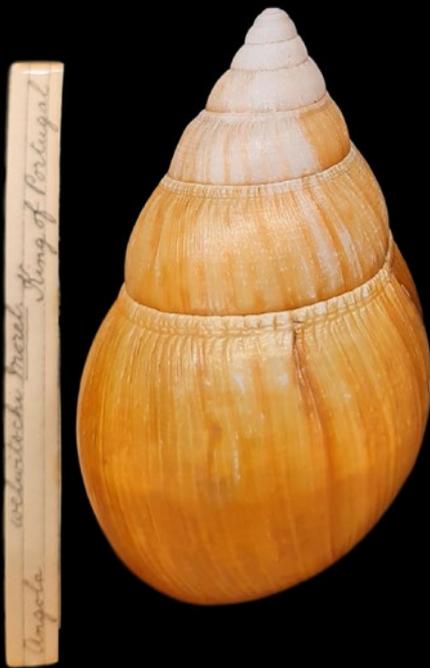


Top: Engraving by John Kirk depicting Dr Livingstone being attacked by a lion.

Bottom: Captives met on their way to Tette



John Kirk (1832 - 1922)
a keen botanist and naturalist



Achatina welwitschia
collected by Kirk



Achatina vestita
collected by Kirk



Corbicula africana
collected by Kirk in L Malawi

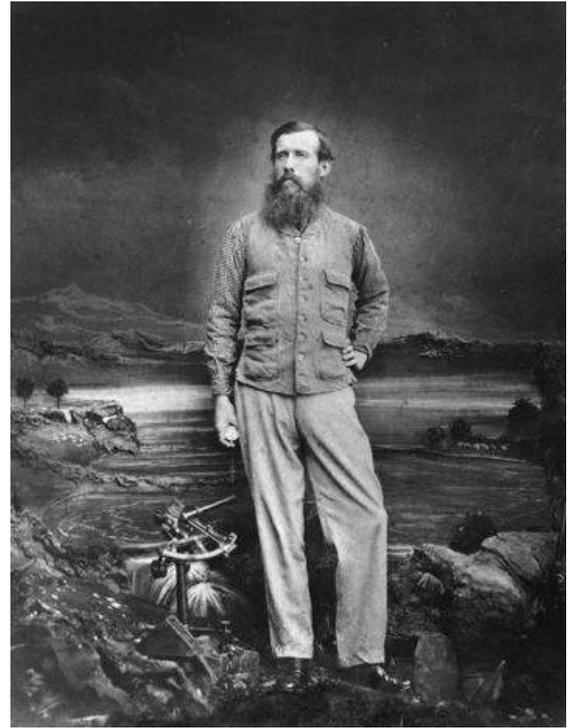


Achatina weynsi
collected by Kirk

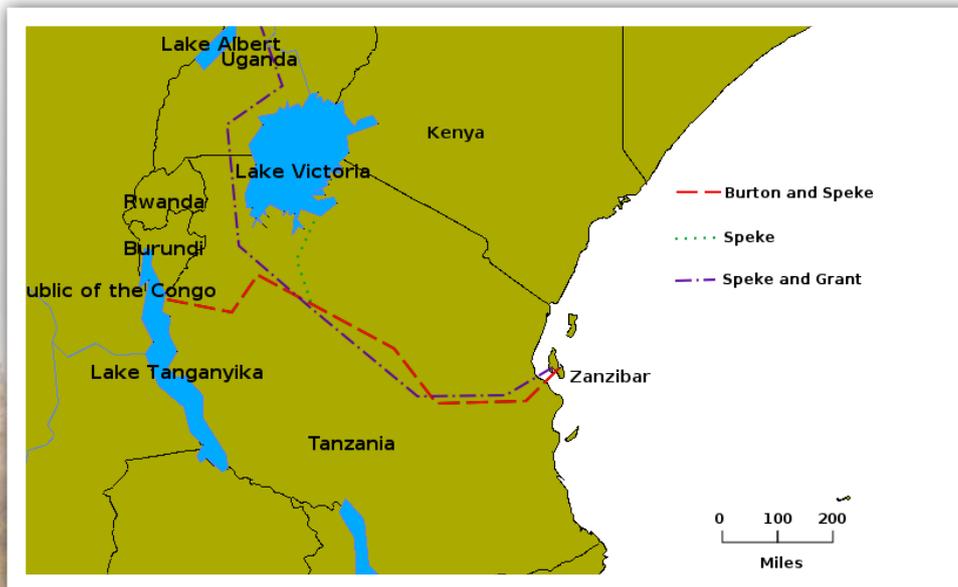
the Livingstone expedition, as well as several paintings undertaken by Baines during the journey.

The second colourful character and collector was the explorer and army officer, John Speke. His great ambition was to find the source of the Nile, and in fact he reached Lake Victoria in his journeys. His first major trip into Africa to explore Somaliland was on an expedition led by Richard Burton. The expedition ended after an attack by Somalis, but paved the way for the two explorers to plan a trip to find a great lake said to lie in the heart of Africa.

Setting out from Zanzibar they spent six months exploring the east coast, before heading inland and reaching Lake Tanganyika in February 1858. Speke and Burton, both having huge egos, split up, and Speke continued on to finally reach Lake Victoria in July 1858. He surmised the lake to be the source of the Nile, but his now rival Burton rejected the idea. It was only after his death that Speke was vindicated when Henry Stanley partially mapped the lake and validated his conclusions. Most of



John Speke (1827 - 1964)
English explorer and officer



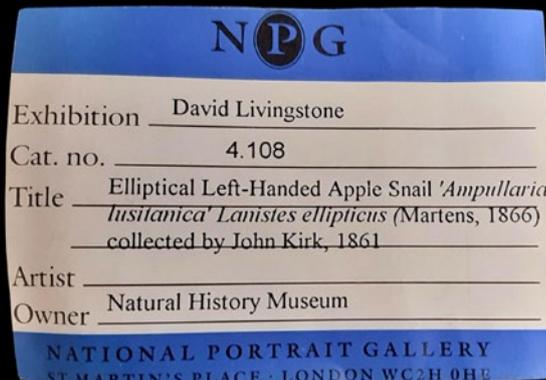
Speke's collection during his travels ended up in the family natural history museum in Somerset in the UK.

It is a wonderful tribute to the courage and determination of these early explorers that some of their molluscan collections now grace the halls of the Natural History Museum.

Routes taken by the expeditions of
Burton and Speke (1857–1858) and
Speke and Grant (1863)



Achatina sp.
collected by Speke



Typical label in the Livingstone Collection



Right: Tropidophora sp
collected by Kirk

Below: Bivalves collected in Nile River by Speke



Five new gastropods from the eastern seaboard of Southern Africa

For full details on these species you are referred to the original publication:

Aiken, R. & Seccombe, A., 2019. *Five new Gastropoda (Casmaria, Sassia, Kilburnia, Quasimitra and Calliostoma) from the eastern seaboard of Southern Africa and a revision of Mitra boswellae*. *The Festivus* 51(2), 198-217.

We thank *The Festivus* for permission to copy extracts and images from the original publication.

Casmaria natalensis

Aiken & Seccombe, 2019

Specimens were dredged off southern Kwazulu-Natal, South Africa, from depths of 75-100 m and occasionally wash ashore along the northern Transkei coast. In the past *C. natalensis* were misidentified as the rare, but similarly looking *Casmaria decipiens* (Kilburn, 1980), which have been recorded from the Eastern Cape to Madagascar. *C. natalensis* differ from the latter by their smaller average size (ca 28 mm vs. ca 40 mm), more elongate less globular shape, and slightly different colour pattern.

Sassia mozambicana

Aiken & Seccombe, 2019

Sassia mozambicana is a deep-water species occasionally trawled off Bazaruto, Mozambique from a depth of 320-360 m, and is sometimes also found attached to the carrier shell, *Xenophora pallidula* (Reeve, 1842) from a similar depth. In the past it was regarded as a form of *Sassia nassariformis* (Sowerby, 1902), which is dredged in southern KwaZulu-Natal from shallower water (ca 100 m). On the basis of its constant pale white colour, broader morphology, more northern locale, larger shells on average and deep habitat, it has been described as a new species.

Kilburnia emmae

Seccombe & Aiken, 2019

Kilburnia emmae, a member of the Fasciolaridae, was dredged from a depth of ca 65 m off Cape St. Francis in the Eastern Cape Province, South Africa. This distinct species, measuring ca 55 mm, can perhaps be confused by the novice with the considerably larger *Kilburnia heynemanni* (Dunker,

1870), *Africofusus adamsii* (Küster & Kobelt, 1876) and *Kilburnia scholvieni* (Strebel, 1911).

Quasimitra rubrolaterculus

Aiken & Seccombe, 2019

Over the past decade a small number of specimens of a large, attractive *Mitra* have been dredged off Southern Natal from a depth of ca 100 m, and has now been described as *Quasimitra rubrolaterculus* Aiken & Seccombe, 2019. The shell measures ca 65 mm and has affinities with two East African congeners, *Quasimitra rinaldii* (Turner, 1993) and *Quasimitra sanguinolenta* (Lamarck, 1811).

Calliostoma margaretae

Seccombe & Aiken, 2019

Calliostoma margaretae have been dredged from a depth of 94-102 m off Hibberdene, southern Natal, South Africa and also collected *ex pisce* (Red Fish) off Richards Bay, northern Natal, South Africa. The shell reaches a height of 22.4 mm and can only be confused with *Calliostoma layardi* G.B. Sowerby III, 1897, from which it differs in having a greater height to width ratio, in having weak spiral ridges, and bearing small nodules on the periphery of each whorl, as opposed to the strong ridges and prominent sharp knobs of *C. layardi*.



Casmaria natalensis
holotype (29.2 mm)



Quasimitra rubrolaterculus
holotype (63.4 mm)



Sassia mozambicana
holotype (45.2 mm)



Calliostoma margaretae
holotype (16.3 mm)



Kilburnia emmae
paratype 2 (64.8 mm)

Mitra boswellae

reviewed

by Roy Aiken and Alan Seccombe

Since the description of *Mitra guttata* by Swainson as far back as 1824, there has been a paucity of information and discoveries of this species over the last 195 years. It is an elusive, little known *Mitre*, from diverse localities including Madagascar, Reunion, Arabian Gulf, Sri Lanka, Andaman, Oman, Somalia, Mozambique and South Africa.

Such was the lack of information on *guttata*, that when J. Cate described *Mitra boswellae* in 1964 after much cogitation, the only species he used for comparison were *M. nubila*, *M. nebulosa* and *M. bretteghami*.

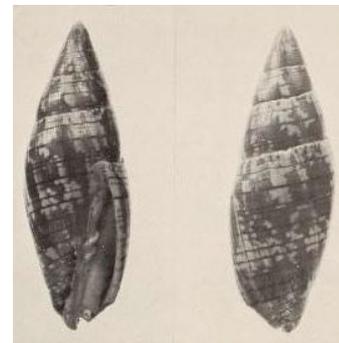
It is of interest that the comprehensive 1980 work of Pechar, Prior and Parkinson, *Mitre Shells from the Pacific and Indian Oceans*, covers some 270 species, but they make no mention of *M. guttata*. The description of *M. boswellae* based on a single specimen was bold indeed, notwithstanding the fact that said specimen had been obtained by Helen Boswell from “the boats in Durban”, now recognized as very inaccurate locality data. Boswell, for all her considerable conchological knowledge, had no idea of the existence of the close congener to her specimen, *M. guttata*.

In more recent times, *M. boswellae* was synonymized with *M. guttata* based on relative perceived similarities between them, but this was based on a notable lack of material, clouding the synonymy. Four South African collectors now have sufficient combined material of ‘*guttata*’ from Kwazulu-Natal, to enable the authors a closer look at the status of *M. boswellae*. Cate’s image in *The Veliger* of the very large sized holotype is clear enough for one to see salient features of *M. boswellae* that afford the realization that this rare *Mitra* is in fact different from *M. guttata* and is supported by two very pertinent comments made by Cate in his description of *M. boswellae*: “Shell large (70.5 mm), smooth” ...and... “spiral punctations obsolete on last three whorls except immediately below the suture” ...enough material is now available to compare *M. boswellae* with *M. guttata*.

Mitra boswellae is definitely a larger species on

average, often with a much broader profile. The whorls of *M. boswellae* are conspicuously smooth, unlike most *Scabricola*.

It is notable that the pattern of narrow brown radial lines on the whorl is not pitted, unlike the strong radial pitted grooves of *M. guttata*, raising the question as to whether this species even falls into the Genus *Scabricola*. These surface brown lines on the whorl of *M. boswellae* are spaced noticeably

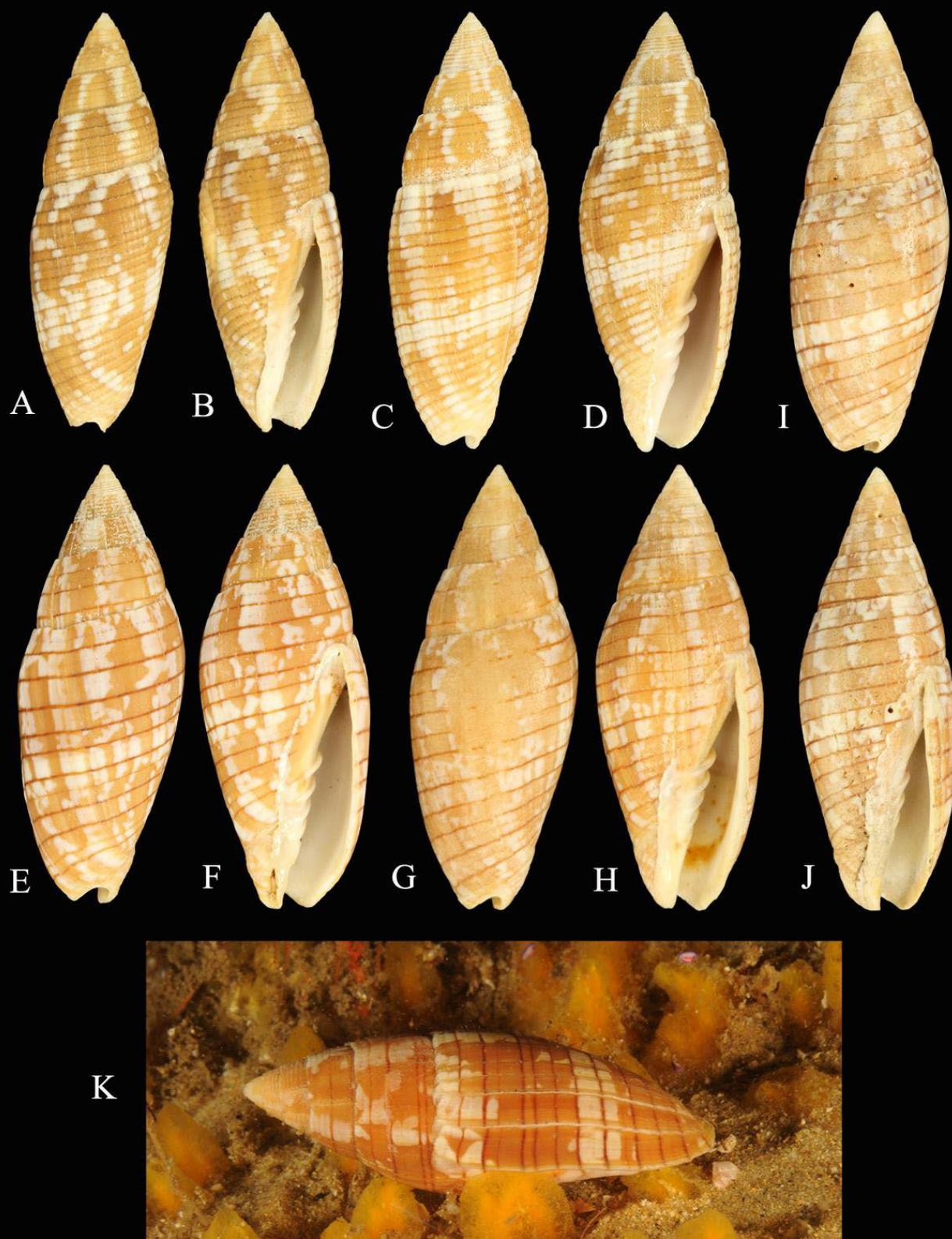


Holotype *Mitra boswellae* Cate, 1964 (70.5 x 24.1 mm). A New Species of *Mitra* from the Western Indian Ocean. 1964. *The Veliger* 6(4):219-220: Plate 28.

further apart than the pitted grooves of *M. guttata* in all shells of *M. boswellae* examined. Therefore, *M. boswellae* is reinstated as a full species based on these new observations. This species was collected in the Richards Bay harbour dredgings (around ten specimens), and the assumption was then made that the shells were worn smooth. Figure 6 showing live taken specimens, is proof of the fact that the whorl is not worn at all. The doubts expressed by some researchers regarding whether the holotype was *ex pisce* are possibly valid.

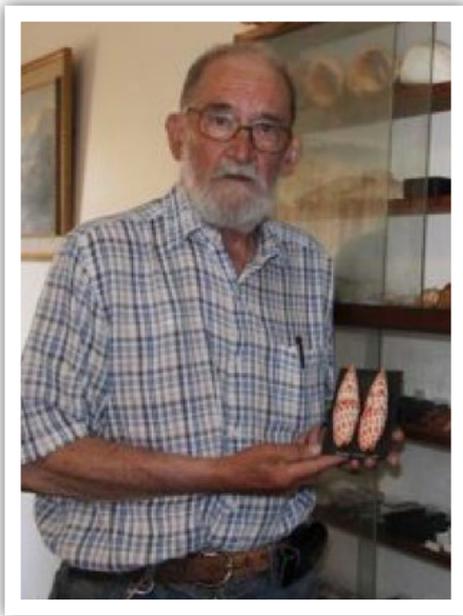
Aiken, R. & Seccombe, A., 2019. *Five new Gastropoda (Casmaria, Sassaia, Kilburnia, Quasimitra and Calliostoma) from the eastern seaboard of Southern Africa and a revision of Mitra boswellae.* *The Festivus* 51(2), 198-217.

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Figures: **A-B** = *Scabricola guttata* (Swainson, 1824) (54.9 x 19.5 mm), Off Kwazulu-Natal south coast, South Africa; Aiken collection. **C-D** = *Scabricola guttata* (Swainson, 1824) (52.7 x 19.1 mm), Off Kwazulu-Natal south coast, South Africa; Aiken collection. **E-F** = *Mitra boswellae* (Cate, 1964) (57.6 mm), Off Richards Bay, Kwazulu-Natal, South Africa; Seccombe collection. **G-H** = *Mitra boswellae* (Cate, 1964) (55.1 mm), Kwazulu-Natal, South Africa; Aiken collection. **I-J** = *Mitra boswellae* (Cate, 1964) (63.68 mm), Kwazulu-Natal, South Africa; Aiken collection. **K** = *Mitra boswellae* (Cate, 1964) Live specimen, Kwazulu-Natal, South Africa; Photographed by Valda Fraser.

THE END OF AN ERA



Danny Spengler

28th June 1941 -
9th December 2019

On the 9th December 2019 we lost one of South Africa's shelling legends. Danny Spengler, well known for his interest in micro shells. He was the one collector willing to process large drums of smelly fish gut for their hidden micro treasures. Danny's collection included over a 1,000 species of shells from fish guts, of which a large proportion are still undescribed.

Besides his ability to find interesting micro shells, Danny mastered the art of cleaning encrusted shells. Spending days to clean a single shell, transforming a throw-away ugly shell into a showpiece. Danny saw the wonder of the shell below all the ugliness and made it his challenge to showcase the wonder and beauty of creation.

A passionate collector, Danny participated in several shelling excursions to the coast. Danny could be identified from far away as he was the one carrying bags of grit home to be dried and sorted. High tide is then spent laying out the wet grit on newspapers, lovingly tending to them to ensure that everything dries completely. Sifting into different fractions, and then sitting quietly sorting through the larger fractions, selecting shells from the grit. He had a great knowledge of the micro shells and was always willing to help identify the

finds. Danny's dry wit and always helpful attitude will be greatly missed by all.

Danny featured in his local newspaper in 2017 and the article is published on the opposite page.

Rest in peace Uncle Danny.



Danny (right) sorting the day's find on a recent shelling trip to Xora on the Transkei coast with, fellow micro enthusiast, Dr Johan Marais (left).

Dan Spengler's hobby of collecting shells all started in 1988, when he and his wife were on holiday at Chintsa, in the Eastern Cape.

"The first thing I used to load was my fishing rod and tackle," said Spengler, who lives in Boksburg. While on the rocks, fishing, the guy next to him suggested that if he wants to catch a mussel cracker fish, he must use the meat of a pink lady shell. Spengler had never heard of a pink lady before. The next morning, he and his wife went off to go and look for a pink lady (*Charonia lampas pustulata*).

They succeeded in their search, and with that they also collected other pleasant-looking shells. Spengler was interested in learning more about the shells he took home with him, so he started reading through a little book on shells of South Africa. His interest developed and the next year they went back to collect more shells. Spengler's fishing downscaled completely and his shell-hunting officially began.

His shell collection consists of more than 3 000 species which he picked up himself, collected from fish gut, swapped and bought from other collectors or received as gifts.

Dan Spengler is at his happiest when sitting at his worktable, researching his shells. He is a recognised shell collector and has had five shells named after him. Spengler's collection is well organised. Each shell has a number to a record card, with details on that specific shell (or species) and the history thereof (where and how the shell was found). All shells are organised in a glass cabinet and various filing cabinets. On the shelves at home are numerous books on shells used for research.

According to Spengler, the most noticed and picked-up shells by the public are cones and cowries. He explained it's easy to identify the family to which a shell belongs. Then comes identifying the species.

However, Spengler said it's quite a process to name a new species. "At least four to five shells (one holotype and three paratypes) of a new species must be used to describe the features of the species. The holotype must be lodged in a museum and the paratype must be available on request for further study," said Spengler. "You must study the shells from worldwide to get a description of the new shell. The description of the new shell must then be published in a recognised scientific journal

along with pictures."

Spengler's pride is the eight species he found, which were described by other shell collectors. These shells are also used in the description of new species. Spengler said the most difficult and unpopular shells to work with are those belonging to the Triphoridae family, because they are very small. The smallest full-grown shell he has in his collection is 0.85mm.

Spengler describes his shell collection as a "fascinating hobby". It keeps him busy – he hasn't been bored in his 17 years of retirement. "You get to be out in the fresh air and get exercise," said Spengler. "It can also be very rewarding when other collectors recognise you as a collector and with shells having been named after you."

Boksburg Advisor, November 6th 2017



Dan Spengler has been collecting shells since 1988. He is a recognised shell collector and has had five shells, for example the *Zemitrella spengleri*, named after him.



Dan Spengler is at his happiest when sitting at his worktable, researching his shells

Biom mineralization

as a key to seashell uniqueness

Shells appear in an astonishing array of shapes, patterns and colours. Recent research has shown that the origin of this variation is at the molecular level, and is to such a degree that each shell is as unique as a fingerprint.

In order to decipher the coding behind this molecular blueprint, scientists have undertaken an in-depth examination of molluscan biom mineralization as a key to discovering the unique genetic instructions inherent in every shell.

These genetic instructions are particularly special because each mollusc shell has different combinations of “ancient” and “novel” genes. Researchers investigated genes starting from the origin of cells, and discovered that molluscs develop their shells using a repertoire of co-opted ancient genes and a suite of rapidly evolving novel genes specific to each modern species. In 2016 a fascinating article appeared in *Frontiers in Zoology*, examining how genes in a shell’s mantle regulate shell deposition and patterning.

The following is an excerpt of the article.

An external skeleton is an essential part of the body plan of many animals and is thought to be one of the key factors that enabled the great expansion in animal diversity and disparity during the Cambrian explosion. Molluscs are considered ideal to study the evolution of biom mineralization because of their diversity of highly complex, robust and patterned shells. The molluscan shell forms externally at the interface of animal and environment, and involves controlled deposition of calcium carbonate within a framework of macromolecules that are secreted from the dorsal mantle epithelium.

The mantle is capable of producing an incredible diversity of shell patterns, and macro- and micro-

architectures. The research reviewed recent developments within the field of molluscan biom mineralization, focusing on the genes expressed in the mantle that encode secreted proteins, or secretomes. The so-called mantle secretome appears to regulate shell deposition and patterning and in some cases becomes part of the shell matrix. Recent studies have revealed marked differences in the mantle secretomes of even closely-related molluscs. A surprisingly large proportion of both ancient and novel secreted proteins contain simple repetitive motifs or domains.

According to the fossil record, many animal phyla diversified during the Late Precambrian to Early Cambrian, roughly 515–541 million years ago. Various factors are hypothesized to have contributed to the rapid diversification of animal taxa at this time, including a three-fold increase in the concentration of calcium in seawater. The dramatic increase in biom mineralized skeletal structures over this period in multiple animal lineages is consistent with the convergent or parallel evolution of skeletogenesis in early animals.

Mollusca are one of the most morphologically and ecologically diverse phyla, with an estimated 200,000 extant species and an evolutionary history tracing back to at least to the Early Cambrian. The great success of mollusca can be attributed, at least in part, to their exoskeleton, which provides defence and support. The adult molluscan shell is a remarkably stable organo-mineral biocomposite, in which the calcium carbonate mineral makes up 95–99 % of the shell. In most molluscs, the outermost shell layer, known as the periostracum, is composed of organic components. The underlying shell layers primarily consist of aragonite and/or calcite), and exhibit prismatic, nacreous, foliate, cross-lamellar or homogenous microstructures.

Diverse shell structures and patterns are produced from a homologous organ, the mantle. It appears that there is a deeply conserved gene regulatory network (GRN) within the mantle which lies at the heart of shell formation. The transcription factor is likely a key member of this GRN, as its expression has been observed at the boundary of non-shell-secreting and shell-secreting cells in the shell field margin of different molluscan classes. Understanding the architecture of larval shell-formation GRN and how it differs among the major lineages of mollusca appears critical in explaining the evolution of different shell morphologies.

The mantle of juvenile and adult molluscs is divided into distinct morphogenetic regions consisting of highly specialized epithelial cell types, each responsible for the secretion of shell matrix macromolecules that influence the formation of specific shell layers. As an example, many bivalves and gastropods have a three-layered shell consisting of periostracum, prismatic, and nacreous layers, although other shell constructions also occur in Gastropoda and Bivalvia. The outer periostracal layer is secreted from within a specialised groove found between the outer fold and remainder of the mantle (the periostracal groove). Production of the middle prismatic layer is controlled by genes expressed in columnar epithelial cells towards the extremity of the dorsal mantle surface, while production of the inner nacreous layer is controlled by genes expressed in cells in the inner zone of the mantle.

Many of the genes expressed by these differentiated prism- and nacre-secreting mantle cells match changes in shell features, such as structure, colouration and patterning, and have been identified and biochemically characterized with a wide range of potential functions including interacting with minerals, increasing shell strength, and exertion of signalling activities towards the calcifying mantle epithelium. The dynamic spatial and temporal expression of shell

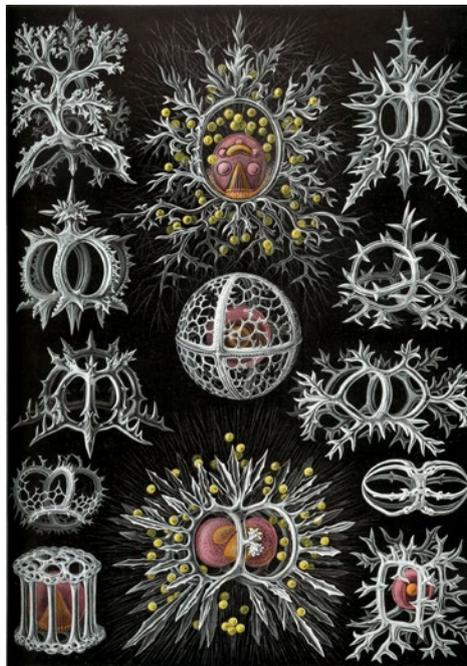
patterning genes demonstrate that regulation of shell biogenesis is complex, with different repertoires of developmental and structural genes being activated in different regions of the larval shell gland and juvenile/adult mantle at different stages of the life cycle. Given that it is the macromolecules secreted by the mantle that exercise control over shell morphology, one might expect that the diversity observed in shell structure is reflected by evolutionary changes in this mantle secretome, rather than changes in the master regulators acting within the mantle itself.

The mantle secretome markedly differs between molluscs. In recent years, several studies have been conducted to identify proteins responsible for shell formation by isolating proteins contained in shells and/or genes specifically expressed in the mantle that encode a signal peptide, which indicate a protein is either secreted or localized on the cell surface.

Shell matrix proteins often contain repetitive, low complexity domains. Different functions have been attributed to different proteins including binding to chitin, providing flexibility or rigid rod-like support, and binding calcium ions. Repetitive low complexity domains also promote the rapid evolution of shell proteins. Despite the unclear origin and evolution of these proteins, their prevalence suggests that proteins containing these domains are important components of the mantle secretome, and that the apparent

high rate of evolution of proteins may contribute – at least in part – to the high levels of gene novelty found in all mantle secretomes examined to date.

The molecular mechanisms underlying the evolution of molluscan shells is likely to be highly dynamic and characterized by independent gene family expansions, domain shuffling and co-option of genes. This variety of evolutionary modes acting on the terminal nodes of shell-forming processes may provide an explanation as to how an evolutionary homologous tissue can give rise to the great diversity



Examples of crystal structures at work in biomineralisation

of shell types seen in nature.

Acidic proteins can also trigger the formation and stabilization of amorphous calcium carbonate which appears to be the initial phase of biomineralization in many animals

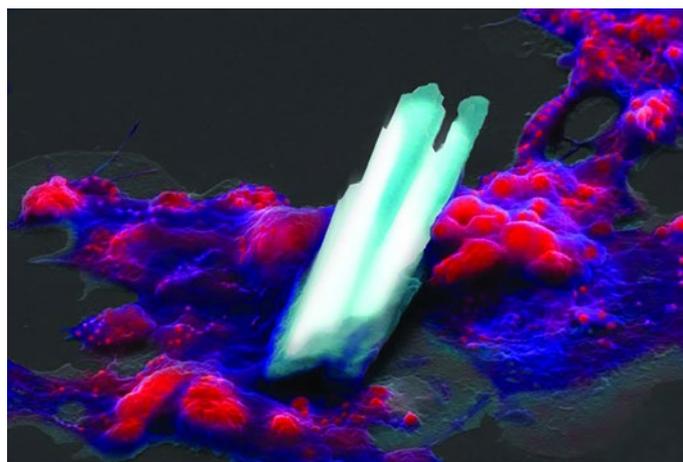
The integration of the fields of genomics and proteomics into the study of molluscan biomineralization has revealed that shell formation is controlled by the highly coordinated expression of hundreds of genes, and the regulated secretion of proteins and other macromolecules.

There is evidence, at least in early developmental stages, for a deep conservation of expression patterns of regulatory genes. Despite this apparent deep homology, the diverse array of molluscan shell architectures and patterns indicate that there exist underlying molecular differences that manifest later in the morphogenetic programme. One source of this variation is the rapidly evolving mantle secretome that shows high levels of uniqueness, even in closely related taxa.

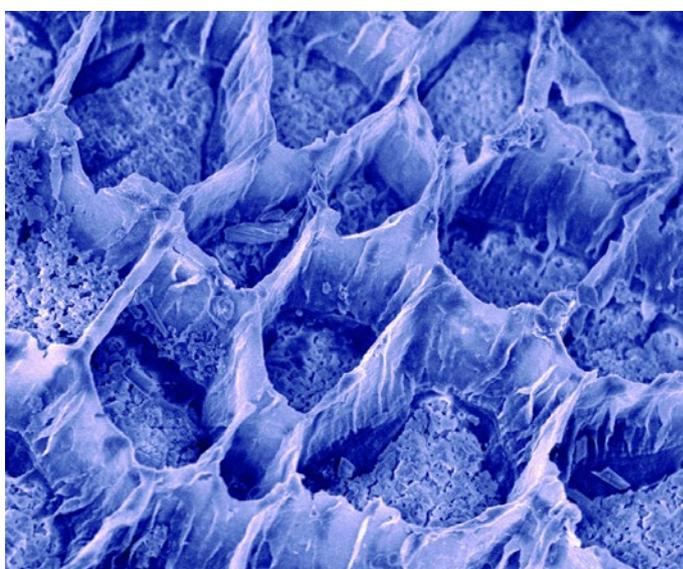
Genes in the mantle appear to encode the mantle secretome and are less constrained and more evolvable, allowing for the intra- and inter-specific variation that underpins the spectacular diversity of molluscan shells. Common principles that govern the molecular basis of skeleton formation appear to apply broadly across the animal kingdom, and include (i) continuous influx and efflux of conserved secreted gene products, (ii) the evolution and expansion of lineage-specific secreted protein families, and (iii) the presence of highly-evolvable repetitive low complexity domains in both evolutionarily young and old secreted gene products.

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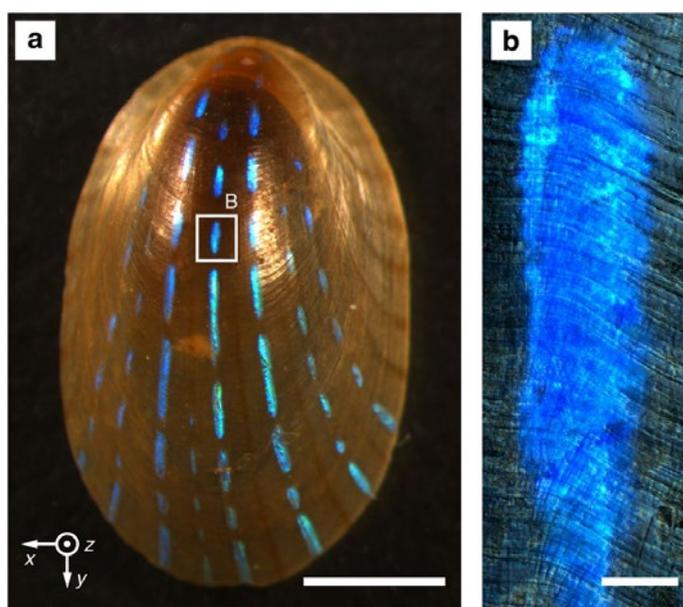
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An oyster blood cell manipulating calcite crystals that will later help compose a seashell



Magnification of an oyster shell revealing multiple strata formed through the action of the oyster's blood cells



Biomineralisation close up on a limpet

Best Articles

On behalf of the Society, the Editor has the pleasure of identifying two categories for *The Strandloper* in the last year, being the best scientific article, and the best general interest article. It gives me great pleasure to award the best scientific article to Mike and Renee Els for their superbly photographed article on the Fissurellidae, and the wonderfully informative article on islands of the Indian Ocean to John Hobbs.

Each recipient will receive a R500 award from the Society as a token of gratitude and respect for the effort and expertise that went into the articles. This is intended to recognise authors and to become an annual event in *The Strandloper*. So get your pens and keypads dusted and ready for action - we look forward to your article in our next issue!

A further Lifetime Award



The Society has spent a lot of time recently making all its policies and procedures clear, consistent and transparent, creating a great legacy for the future. One of the issues it gave considerable attention to, was that of Lifetime Awards. Whilst previous awards may not technically have met the strict requirements of the new policies of the Society, the road forward is clear.

It was therefore with great satisfaction that the Society's first granting of a Lifetime Award under the new dispensation has been accorded to Alwyn Marais. In many ways Alwyn epitomises what conchology is, or should be, all about – the passion, the dedication and the knowledge all rolled into one. He has been an active member for the Society for many years, involved in many rolls. Undoubtedly his finest has been as Editor and publisher of *The Strandloper* magazine, which under his leadership, has transformed into a modern, relevant, focussed and high quality document in every sense. He was instrumental in setting the guidelines for the technical content of articles, and has always had a hand in the production of the magazine. He has published a good number of scientific articles, and has shells named after him. He has fostered close links with the Natal Museum, which continues to the present. He has published two fine books on South African conchology, and a third is at an advanced stage of completion.

Above all, Alwyn is modest, unassuming and open, which are rare traits for the small club of learned conchologists in our midst. It is truly a great privilege to accord our highest token of respect and appreciation to Alwyn with the bestowal of the Society's Lifetime Award.

New shell exhibit



The Seashell Museum in Jeffreys Bay has recently added a wonderful new shell display to their collection. The display highlights the wonder and beauty of micro shells. If you are in the area, make sure to visit the museum.



Part of the new micro shell display.