



*Afrivoluta pringlei* Tomlin 1947

# THE STRANDLOPER

BULLETIN OF THE  
CONCHOLOGICAL SOCIETY  
OF SOUTHERN AFRICA

CIRCULAR NO. 136.

DECEMBER, 1971.

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GREETINGS: The President, Vice-President, Group Chairmen and the members of the Council wish to take this opportunity to wish all members, wherever they may be, the Compliments of the Season. May you all enjoy a Happy and Bright Christmas, and a Prosperous New Year.

MEETINGS: There will be NO meetings of the Society or Groups during December. Dates and Venues of the January meetings will be announced later.

There will be no Circular in January. The next issue will be No. 137 in February, 1972.

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## THE GLOBE-TROTTERING SNAIL

by C.C. Appleton

By piecing together reports written by early naturalists and conchologists, the saga of the Giant African Snail - one of the well known large, brown-striped land snails, Achatina fulica Bow. - tells how it has spread from tropical East Africa. This is stated by H.A. Pilsbury in 1904 to be the original home of the species; however even at a snail's pace, and of course, with man's invaluable assistance, it has almost circumnavigated the globe in some 200 years.

It is believed to have been introduced into Madagascar during the 16th century, probably from Zanzibar. The French geologist G. Dollfuss wrote in 1899 that it, and the allied species A. panthera (Pér) as well, were taken to the island in recent times by Africans 'as an accustomed food source'. L. Germain expressed the same opinion in 1921. Specimens, apparently from Madagascar, first reached Europe at this time, and the earliest drawings of A. fulica

appeared/.....

appeared in the 4th volume of Martin Lister's "Historia Conchyliorum" in 1688. At this time Madagascar was frequented by itinerant navigators and some of the most notorious pirates. A small settlement was started there by the French East India Company in 1842. The earliest reliable record of A. fulica from the island seems to be that of M. le Gentil in "Voyage dans les Mers de l'Inde, 1761-1763", published in 1779 and in which he describes large snails clearly referable to A. fulica from several coastal localities. He stated them to be "very beautiful and shaped like Buccinum". By 1760 A. fulica was common in Madagascar and probably the larger A. panthera too.

A. fulica was taken from Madagascar to Mauritius about 1800 and the French naturalist L.A.G. Bosc wrote in a contribution to "Nouveau Dictionnaire d'Historie Naturelle ..." in 1803, that a previous governor's wife had numerous specimens brought in on doctor's orders to treat a chest ailment from which she suffered. She died shortly afterwards, but the snails did not. There is probably truth in this tale which is repeated by other writers on the natural history of these early exploratory voyages. In Europe from the time of Pliny the elder to the late 19th century snails and slugs were either swallowed alive or prepared in curious ways and eaten as a prophylactic and even a cure for consumption (tuberculosis) and other maladies.

The snail was collected from Mauritius by Quoy and Gaimard in 1822 during the first of three French circumnavigations of the world (1822-25) under the command of Admiral Jean S.C. Dumnot d'Urville making oceanographic observations in the vessel "Astrolabe". The snails collected here were briefly examined by de Blainville who published an article on A. fulica in 1824. When the French vessel "La Coquille" called at Port Louis in 1824 the expedition's zoologist, R-P. Lesson, noted in "Louis I. Duperry, Voyage Autour du Monde La Coquille, 1822-1825" that the snail was becoming a pest. He published a fairly comprehensive description of a Mauritian snail in this work in 1831. The two naturalists Quoy and Gaimard accompanied d'Urville on his second voyage also (1826-29), visiting Mauritius in 1828. They noted then that A. fulica had become a serious pest and that heaps of shells littered the fields.

Its spread throughout the Indian Ocean was rapid; being recorded from Ile de Bourbon (Réunion) in 1821 by the French naturalist A. d'A. de Férussac, and from Mahé in the Seychelles in 1840 by the conchologist H. Dufo. The French conchologist P.M.A. Morelet recorded it from the Comores in 1860. Mauritian snails were deliberately released in the Chouinghie gardens of the Asiatic Society of Bengal in Calcutta by the English conchologist W.H. Benson in 1847. Also, just prior to this date, A. panthera was introduced to Mauritius (? from Madagascar) by the collector Sir David Barclay, and it has now ousted A. fulica from the island's lowlands.

Further spread of A. fulica seems to have occurred only during the early 20th century; often being introduced as a supplementary food supply. It was taken to Ceylon in 1900 by a collector, Oliver Collett, and kept in his garden south of Colombo and from which it soon escaped via vegetables in a cart bound for a coastal market. In 1911 it was introduced to Northern Malaya, where it was used by Chinese duck Farmers to feed their birds. From here it reached Singapore by 1917, and then Indonesia in 1921, probably being imported by plant breeders. Specimens were found in the grounds of the university on Amoy island off the Chinese mainland by G.A. Herklots in 1931. Apparently they had come on plants from Singapore. They have probably been introduced to the mainland

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by now. The snail was apparently introduced to Taiwan in 1932, also from Singapore, by a government official, Mr. K. Shimojo.

Numerous Japanese newspaper articles extolled the qualities of A. fulica both as food and for its medicinal properties, hastening its introduction, which occurred shortly before 1933. However, thorough control measures and severe winters seem to have ridded Japan of the immigrant which was fast becoming a pest. From Japan though, it did spread to several Pacific islands, reaching Hawaii in 1936. A lady is reported to have brought some specimens from Taiwan in her luggage - she released them in her garden for aesthetic reasons! A ? physician had some sent by parcel post from Japan in the same year. These he bred as 'materia medica'.

It was for similar 'health' reasons that the snail was introduced to the Caroline Islands in 1938, and the Bonin Islands in 1937-8. The Japanese forces are held responsible for introducing A. fulica to the Philippine Islands in 1942, and the Bismark Archipelago before 1945.

Today it is widespread throughout the Eastern and Far Eastern mainland and islands and is a serious pest there, devouring crops and garden plants at a startling rate. Continued spread has been checked to some degree by expensive and not very successful control programmes; and it has been discovered alive by alert customs officials in cargoes landed at Australia, U.S.A., and Canadian ports. It was introduced into California with returned war equipment in 1948, but was quickly eradicated and did not reappear in the U.S.A. until, according to a report in the Los Angeles Times last year, several live specimens were brought in air baggage from Hawaii to Miami by a young boy in 1966. The snail is now multiplying rapidly in Florida and could easily become a pest there.

Whether or not A. fulica finds its way across the Atlantic Ocean to West Africa - the last lap of its circumnavigation of the world - remains to be seen. It is not known from W. Africa, but would probably flourish there if given a chance.

References:-

- Mead, A.R. (1961). The Giant African Snail. Univ. Chicago Press  
Bequaert, J.C. (1950). Studies on the Achatinidae. Bull. Comp. Zool. 105, (1).

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FURTHER NOTES ON SOUTH AFRICAN NERITA

by R.N. Kilburn

Further to Mr. Carlsson's interesting article in Circular No. 131, the following notes are offered:

Nerita aterrima (Gmelin (25 mm))

This is the rarest species in South African waters, and nothing is known of its habitat preferences. The Natal Museum has specimens from Margate, Umkomaas, Inhaca Islands and Mauritius, and it has been recorded from at least as far afield as the East Indies. In shape it somewhat resembles N. undata, but is distinguishable at sight by its characteristic colour pattern. The surface bears shallow spiral grooves, delimiting inconspicuous, flattened spiral cords; the general colour is pitch black, with a series of small white flecks on each rib. The operaculum is finely granular.

Nerita umlaasiana/....

Nerita umlaasiana Krauss

The statement that this species inhabits brackish water is quite incorrect (Neritina natalensis Reeve is probably intended). It actually inhabits the open coast, in my experience well away from rivers. It lives high up the shore, in the lower Littorina zone, generally in caverns or on shaded rock faces. The allied N. polita on the other hand, lives somewhat lower down, and is rarely, if ever, found on rock faces. Although the latter does occur among low lying rocks, it is usually found on sand, just under rock overhangs.

N. umlaasiana ranges south as far as Coffee Bay (Natal Museum) and has been recorded from as far north as Quelimane. The latter record, however, needs confirmation, as there are various Indo-Pacific species which are totally indistinguishable from umlaasiana in the absence of the operculum.

Nerita polita Linné

The Natal Museum has a specimen of the so-called form rumphii Recluz from Durban, of which more specimens are wanted. It differs from true polita in the presence of distinct spiral grooves, and is usually smaller and narrower as well. Although generally synonymized with polita, a careful field study is needed to clarify the position.

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A REPORT ON TONNA DOLIUM LINNÉ

by B.J. Young

May I please report what may perhaps be an interesting find which I was fortunate in making over a recent springtide period.

The shell, Tonna dolium Linné, was found under a large piece of decaying rock and the following are the details thereof:

The shell was dead and occupied by a hermit crab,  
The measurements were 113 x 86.5 mm.

The larger pincer of the crab was as big as my forefinger and was studded, on the surface facing outward, with a number of barnacles of up to about 2.5 mm in diameter.

On removal of the crab, the aperture was found to contain, inter alia, four Anomia ephippeum (all alive), the largest of which measured 40 mm in diameter. The fourth emerged during cleaning being too far back in the throat of the aperture to be visible.

The shell was very heavily covered with a miscellaneous assortment of barnacles, marine worms etc. intermingled with a concretion of calcareous and other deposits and my first inclination was to throw it away. However, better counsels prevailed and, following a good scrubbing followed by the removal of all barnacles etc., again followed by a scrubbing with a household cleansing powder after which the shell was soaked for about 20 minutes in bleach, a marked improvement had taken place. The foregoing treatment was then added to by a further scouring with a bristle toothbrush with soap and water and then by several dippings of about 10 seconds each in 5% hydrochloric acid, each followed by a cold water sluice. Finally the shell was rubbed with a very little lanoline and, instead of throwing it away, I shall be happy to add it to my collection.

Can members possibly supply information as to what evidence there is of finds of this shell on the Natal Coast. I have two from P.E.A. but these are about one-quarter the size.

SHELLING UP THE EAST COAST

by D. GOULD

Quite suddenly my family and I plus our three dogs set off on holiday, which was to include, amongst other things, shelling between Mossel Bay and Port Elizabeth.

Leaving Cape Town for the East Coast one drives inland through lovely mountainous countryside before one again sees the sea at Mossel Bay. This town was known to the early Portuguese sailors as early as 1487, when Bartholomew Diaz touched there. However, the town was given its present name (so I have read) by the Dutch in 1601 on account of the large quantities of mussels found there. I can't claim any good finds at either De Bakke or Santos beach nor around the natural pool at the Poort.

Knysna, pleasantly situated overlooking a lagoon is a short distance from the sea. The small port is entered by a narrow passage on either sides of which are imposing cliffs known as The Heads. There is a good beach at Noetzie, and somewhere in this area I found Turritella capensis Krauss.

Plettenberg Bay was used by the early Portuguese and was named by them Bahia Formosa - beautiful bay. The crescent shaped bay has miles of sandy beach, and there I found a fairly good specimen of the delicate "pansy" shell - Echinodiscus bisperforatus, as well as Philine aperta.

Next came a spot in South Africa that brings a light to most conchologists' eyes - Jeffrey's Bay. Sited on St. Francis Bay it is about 50 miles from Port Elizabeth, and was, I believe, founded by a Captain Jeffrey who was shipwrecked there in 1868. During the past three winter seasons the surrounding area has been battered by storms and maybe this had something to do with the fact that there seemed to be fewer shells about than when I first visited there four years ago.

Don't think we returned home empty handed as the following will show:- Conus aurora Lam., with its extremes of colour and pattern, Cypraea edentula Gray, C. capensis Gray, C. helvola meridionalis Sch., Trivia ovulata Lam., T. aperta Swain., T. suavis Sch., Marginella ornata Red., M. piperata Hinds, M. piperata var. lutea Sow., and M. albocincta Sow.

To digress a moment, it is often said that shells are where and how you find them. I heartily agree. The dogs mentioned above are two Maltese poodles and a terrier called Gina. Whilst we sifted sand near the water's edge, they were happily engaged in digging themselves cool sand pits. I idly happened to glance at Gina, and to my somewhat sun/sand blasted eyes, saw she had uncovered a patch of what looked like small shells. I quickly scooped these into a bag before her busy paws recovered them again. Later when I examined what were indeed shells, I found Ancilla marmorata and Marginella piperata var. lutea - this latter being the best specimen I have found to date.

Other finds included Voluta bullata Swain., Mitra latrunculata, Mitra picta, Melapium lineatum, Pinctada capensis.

The shelling part of our holiday came to an end at a beach we had never tried before - Summerstrand, a suburb of Port Elizabeth. The area we shelled was about a mile walking towards the light-house from the start of the road to Schoenmakerskop. Here we found Bulla ampulla L., Tonna variegata Lam., and Pinna squamifera Sow.,

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Changes/ .....

Change of Address:

- Mr. T.J. Pienaar, 44 Boshoff Road, Rustenburg, Transvaal.
- Mrs. J.C. Dawson, 4 Aldwyn Towers Court, Whitlock Street, Port Elizabeth.
- Mr. P. Mills, "Far End", Old Oak Road, Bellville, Cape.

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New Members:

- Miss H. Eker, 3968 Coquina Drive, Sanibel Island, Florida 33957.
- Miss M.E. Booth, 36 Harland Court, Banket Street, Hillbrow, Johannesburg.
- Mrs. F.A. Crossley, 3 McInnes Street, Kimberley, Cape.
- Mr. R. Avice, 703 Saunton Sands, Shearer Road, Durban.
- Mrs. H. Fuller, Disa House, 70 Orange Street, Cape Town.
- Mrs. J.G. Harper, 17, 10th Avenue, Parktown North, Johannesburg.
- Mr. M.B. Cortie, 60 North Road, Linden Ext., Randburg, Transvaal.

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Exchange Wanted:

- Mr. P. Catania, "Die Ecke", Buziott Street, Naxxar, Malta. Wants to exchange with South African collectors.
- Mr. L. Poroi, Post Office, Papeete, Tahiti. Wants to exchange cowries, cones and volutes.
- Mr. H.F. Jones, P.O. Box 821, Marathon, Florida 33050, U.S.A. Wants to exchange with South African collectors.

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Eastern Cape Notes:

Nine members and one prospective member attended our November meeting which was held at the home of Henri and José White in Kabega Park. Apologies were received from Mimie Bereth, who is at present on holiday overseas, Irvy Gledhill and Mr. Narramore.

A short discussion on Cypraea took place, after which the members found much of interest in Henri's collection, including his latest parcel of shells from Belgium.

Refreshments were enjoyed and the meeting ended at 5 p.m.

May our group take this opportunity to wish all members the compliments of the season.

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Border Notes:

Eleven members and one visitor attended our October meeting. We were delighted to have Mrs. Trow from Mganduli with us. Apologies were received from Miss Eva and Mrs. Leslie.

Mrs. Gillmer drew our attention to the amendments to the nomenclature of the family Cymatiidae in the series currently running in our Circulars. We were informed that there is now also a restriction on shelling in South West Africa.

Our subject for the day was the family Coniidae. Again there was lively discussion concerning this family and, on the whole we are rather puzzled as to which shell to call what.

Also on display were the following finds of interest:- Mrs. Palmer brought an Euthia ponsonby found in a musclecrackers stomach caught at 40 fathoms. Mrs. Armstrong had a sinistral Cypraea capensis found at Yellow Sands - this is the third one found, and Mrs. Cannon brought in a chambered Nautilus which was found near Haga Haga.

We discussed the increasingly menacing problem of pollution and the activities of the S.A. Underwater Unions Marine Research programme as well as the H.U.N.U.C. manned underwater project and the benefits they could bring us.

The meeting closed at 3.45 p.m. and we then held a lively swop session before tea.

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Transvaal Notes:

Members were notified of a change in plans and a meeting took place on November, 24th. Thirty people were present. Mr. Ruben took the chair in the absence of Mr. Ralph. He told members that they were to be congratulated on what had obviously been an outstandingly successful exhibition, and said that the Council had made a contribution to cover the cost of insuring the exhibits. This generous gesture of support was warmly applauded by all present.

The Secretary read a telegram from the President of the Society, Mrs. Leila Kerr, congratulating the Group on the Exhibition.

Mr. Ruben then mentioned the possibility of establishing a reference collection at Shell House, and asked for members views. It was clear that the project had the support of the meeting.

The subject "Shells - where and how to find them" was discussed by a panel of members. Mr. Aiken read Mr. Ralph's contribution on shelling in the Transkei and Natal, Mrs. Adam and Mr. Polack spoke about Ponta Zavora and Inhaca Island respectively, Mrs. Hooper on looking for Cypraea in Kenya, and Mr. Jenner on Mossel Bay. Participation from the floor was excellent.

The question of shelling in Mocambique was raised. Several members who have recently visited Santa Carolina, Bazaruto and Ponta Zavora said that shelling in these areas had been prohibited. It was agreed that clarification of this matter should be sought.

At the end of the panel discussion, Mr. Aiken was asked to explain, especially for the benefit of new members, the importance of the radula in the identification of molluscs. Members were requested to preserve unidentified or doubtful specimens in a 70% solution of alcohol so that these could be examined by himself, Dr. van Hoepen or Mr. Ralph.

The meeting ended on a note of optimism and enthusiasm for projects being planned for the coming year.

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Editors Note:- The question of shelling having been prohibited in Mocambique has been taken up with the authorities by the Council and we are awaiting further information.

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Durban & Natal Coast Notes.

Eleven members attended our November meeting with apologies from Messrs. Smith, Sprighton and Dench.

A lengthy and lively discussion took place on Classification and Nomenclature. This arose as a consequence of the change of name of the locally found Pterimurex mitriformis to Pteropurpura incurvispina Kilburn.

It was agreed that subject to suitable microscopic facilities becoming available, an attempt be made to form a local collection of radulae.

The possibility of staging a public exhibition was discussed. A sub-committee consisting of Mr. Young, Mrs. Muller and Miss Lambert was elected to investigate this.

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Minutes of the Meeting of the Society held on 30.11.1971.

The twenty nine members and visitors present were welcomed by Professor Mallory, with a special word of welcome to Baroness von Redwitz, our guest speaker for the evening. Apologies were recorded from Mrs. Weeks, Mr. Gentle, Mr. Hart and Mr. M. Wright.

The minutes of the previous meeting, having been published in Circular No. 135, were taken as read and adopted.

Professor Mallory invited all present to a Christmas get-together to be held at his home on Tuesday 14th December.

The Secretary informed members that the Society had been offered a limited number of copies of "The Fringe of the Sea" by Isobel Bennett. This book dealt with all aspects of the intertidal zone. It was originally published at ten Australian Dollars but was now offered at R4-50 a copy.

The Treasurer informed the meeting that it had been decided at the last Council meeting to issue members with name tags. These would be available at the January meeting and would cost 20cents each.

The Chairman informed members that the Council had co-opted Mrs. Mallory to fill the vacancy on the Council. This was met with long applause.

The meeting was then handed over to Baroness von Redwitz who showed slides on the intertidal zone as seen through the eyes of an artist and photographer, followed by a travel talk, with slides, on the island of Mauritius. This was thoroughly enjoyed by all who expressed their appreciation by loud applause. We hope to invite the Baroness again in the near future.

Tea, cake and biscuits were served at 9.30 and a pleasant time was had in general discussion.

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Remember the Society is run on a voluntary basis and time is something that there is not too much of ..... So please bear this in mind before taking us to task for some oversight.  
To err is human !

SECRETARY/LIBRARIAN.

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