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X THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA X  
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CIRCULAR NO. 30

MARCH, 1962

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Edited by Leila Kerr.

MEETING:

The next meeting will be held in the Lecture Room of the S.A. Museum on Tuesday, 20th March, at 8.15 p.m. Mr. Jack Walker will tell us about his recent shelling trip up the East Coast. The shells for display will be trawled and deep water ones, South African only. A suitable film will be shown.

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FIELD DAY:

There will be an outing on Friday, 6th April, (Van Riebesek Day) to Melkbosstrand. Low Tide is at 10.31 a.m. Meet on the beach below the Homestead Hotel at 9 a.m. or before. Beginners bring a plastic bag or bucket, screw topped jar, knife, etc. and wear tackies and garments suitable for wading. As this will be in the school holidays, we expect a good turn out of Juniors. Friends with cars especially welcome, but if desperate, phone Leila Kerr for a lift.

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ABOUT MEMBERS:

MEETING AT THE S.A. MUSEUM. 20.2.1962.

Apologies were received from Miss Kempthorne, Mr. D. Ackermann and Mr. J. Grindley. The minutes, printed in the previous circular, were taken as read.

The Secretary was pleased to report that the three Country Members co-opted to the Council have accepted. These are:-

Mrs. Helene Boswell - Transvaal  
Mr. P. Elston - Natal  
Mr. D.H. Kennelly - Eastern Province and Border.

The following were elected as members of the Society:-

Master R. Pollard, Lichfield Avenue, Bishopscourt Estate, Claremont.  
Master P. Schaff, Briden, Drogheda Road, Wynberg.

A Field Day to Melkbos was discussed. (see above). Library books were returned and exchanged.

We were very happy to welcome back our President, Professor J.H. Day, after his absence overseas. Professor Day gave a most interesting and informative talk on estuarine molluscs, illustrating it with excellent slides of typical shells and dealing with the different habitats found in an estuary.

Dr. Broekhuysen lent a film he had taken on Murrumbene estuary showing the work done by the Zoology Department of the University of Cape

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Town. We thank him very much.

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JUNIORS, ATTENTION!

We want to start a Junior Page in the Circular, written by you. To encourage you to contribute, a prize of shells will be awarded for the best article. Age will be taken into consideration. Write about your own collection, or a shelling trip, or any particular family of shells, etc. Put your name and age on the article and ask your parent to sign that it is your own work.

Here is your chance, Juniors, to show us what you can do! Entries must be in by the end of March, 1962.

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SCRAP BOOKS:

The Exhibition of Scrap Books will be held at the April meeting. Country members wishing to enter for this must forward their books to the Secretary in good time.

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THE CIRCULAR:

We feel that more members could make an effort to write an article for the circular. Our regular contributors have done yeoman work and it is time that others should help to keep the circulars going. We would welcome something of interest from our corresponding members. Articles need not all be scientific. Your secretary hopes to be inundated with material in the near future!

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GENERAL NOTES:

ARTICLE NO.6                      OTHER MEANS OF COLLECTING.                      by J. & C. Walker

We have now dealt with rock snells and shells on and off the beach, but there are other ways of collecting.

If you are enthusiastic and keen on swimming, diving for shells is a very pleasant pastime. All you need is a snorkel, mask and frog-feet and you will be able to work in water 15 ft. deep. Going deeper is not advisable unless you are trained. Floating on top of the water, just moving with the aid of your feet, study the bottom. Look for any uneven bumps in the sand on the sea floor and when you think you have spotted something, dive for it.

You will find many new shells alive this way, which you may previously only have collected beach washed.

Another method is called fanning. In this method you move your frog-feet back and forth just above the sand with a fanning motion, covering an area of about 4 sq.ft. In this way, some shells are washed out while others are just uncovered. After you have finished fanning, study the area cleaned to see what you have exposed. Turning rocks over under water is easy, for big rocks are less than half the weight of those out of water.

Here/.....

Here you will find many shells hidden from bright light under rocks. One thing that should be stressed is that even when only using a mask and snorkel, you should not dive alone. If you want to dive with an aqualung, join a club for training, rather than trying to do it on your own. One of the first things you will be told is "Dive Alone, Die Alone". Never play with the sea.

Trawling for shells, if you have the facilities, is most interesting. More time will be devoted to this subject in a separate article in the future. At present, trawled shells are obtainable from our deep-sea trawlers if you are lucky enough to know somebody who works in one of them.

When a hunter goes out, he follows the spoor of the animal he is after. With shells, if you are on the beach or amongst rocks and you see a spoor, follow it up. If it suddenly stops, scratch just below the surface of the sand. Often you will find another shell.

The last collecting method that will be mentioned here, is the shell trap. There are various methods of making traps, but they all serve the same purpose. Bait the trap with any kind of sea bait. Put it down at low tide, or if you have a boat, at any tide, usually just before dark. Leave it the whole night and collect it just as it is getting light. If there are shells in the area, your trap will be full. Empty the contents into a bucket of water to avoid breakage of the shells, and sort them afterwards.

We have now dealt with nearly all the means of collecting and it is up to you to do the rest.

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SOME SPECIES OF THE GENUS LATIRUS. by K.H. Barnard.

L. reusi Sow. 1886. Among various molluscs recently collected by Mrs. C.M. Connolly near Simonstown, False Bay, were two living specimens of this species. So far as published records go, this is the first occasion on which it has been found alive. It is also a new record for the fauna of False Bay, although the South African Museum has beach-worn specimens collected by R.M. Lightfoot at Kalk Bay in 1903.

The Simonstown specimens measure 17 x 8.5mm. and 16 x 7mm. The largest Kalk Bay shell is 20 x 8.5mm. Sowerby gave 30 x 10mm. for a Port Elizabeth shell.

The protoconch is missing in both shells, and the apex is covered with calcareous algal growth. Respectively 5 and 4 whorls can be counted; 10 axial ribs on 3rd whorl, 11 each on 4th and 5th; crossed by 6 spiral ridges (probably 7 on later whorls of larger shells), the upper two not quite so strong as the others; 7-8 additional ridges on base. Columella rather abruptly cut away where the canal begins. An obscure parietal denticle posteriorly opposite a stronger denticle on the outer lip, the latter internally plicate. Periostracum finely wrinkled, both on the ridges and in the grooves. Operculum ovate-pearshaped, apex acute, incurved.

Radula with at least 130 rows, lateral plates with 8 cusps.

Colour of the living shells black or very dark umber-brown (Sowerby: "atro-fuscus"), aperture pale leaden colour or slightly violaceous; operculum fulvous-brown. Foot of animal coral-red.

Turton photographed a protoconch which he assigned to this species; he may be correct, but confirmation is desirable.

This species is a true Latirus, without small intervening denticles between the cusps on the lateral plate of the radula. (contrast Peristernia, fig. 19 g., Barnard, 1959).

L. hairstowi Sow. 1886. This species has not apparently been taken alive. It is probably a Latirus, but until the animal has been examined, its generic position remains doubtful. Turton photographed a

protoconch/...

protocoenob, but again confirmation is desirable.

E. polyzona (Linn.). At the time my paper was published there was only one record of this species from South African waters, and that from a fish stomach (probably). This does not comply with the rule that only species which are found actually alive can be admitted to the South African fauna-list. However, in 1959 Dr. P.H. Talbot (S.A. Museum) found several living specimens at Umsikaba (north of Port St. Johns); and since then Mr. Walker has found it at the same locality.

E. clausicaudatus (Hinds). This species from deeper water on the Natal coast and on the Agulhas Bank, has been taken alive by the University of Cape Town Ecological Survey. The radula is not quite typical of Latirus, but is better reserved until it can be figured.

Does any member know anything about Reus? Was he a member of the Port Elizabeth Naturalists Society, of which Bairstow was Hon. Secretary; was he one of Bairstow's "shell-scouts"?

References:

- Sowerby, G.B. 1886. Journ. Conch. 5, p.8.  
" 1892. Marine Shells of South Africa. p.17.  
pl.1, figs. 18, 19.  
Turton, W.H. 1932. Marine Shells of Port Alfred. p.49.  
pl.xi. nos. 366, 367.  
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DO OCEAN CURRENTS DRIFT SHELLS? by John Grindley, S.A. Museum.

In the last circular (29:5) Mr. Kennelly refers to a shell (Ficus subintermedius) from Bushmans River mouth which was rather worn "and shows signs of having drifted to this part of the country with the aid of the Mocambique current".

Ocean currents are frequently invoked in attempts to explain such anomalies of distribution but in fact it is rather doubtful whether they do transport shells. Ocean currents are largely surface phenomena and decrease rapidly with depth so that even a powerful current like the Mocambique current becomes a hardly detectable drift deep down. The maximum velocity of this current at the surface is less than five miles per hour and in most places it is less than one m.p.h. On the bottom it would certainly be less than one m.p.h. Water drifting past at this speed would certainly not be enough to move a shell, even allowing for its apparent loss of weight in water. Photographs of the bottom of the sea sometimes show ripple marks indicating currents but only in the finest sediments. The pattern of deep currents is often unrelated to the surface currents and may be opposite in direction. Near the Bushmans River Mouth there is usually an inshore counter current flowing in the opposite direction to the Mocambique current. Taking these facts into consideration it is unlikely that a shell like the one mentioned by Mr. Kennelly could have been drifted far by the current.

Wave action is quite a different thing, and anyone who has collected shells washed up after a big storm will realize that the turbulent action of storm waves must stir up the bottom to a considerable depth. The action of surf along a sandy shore may also sweep shells gradually along for miles, but the same does not happen on rocky shores where shells soon fall into crevices or are washed into deep channels below the range of wave action. Shells transported in this way by wave action would become so beach worn as to be almost unrecognisable before they had been carried very far.

Dead shells are sometimes trawled on the Agulhas Bank of species which now only occur much further up the East Coast. At first this may seem to provide evidence for current drift, but such cases are more satisfactorily explainable by climatic changes in past ages. Such arguments, however, can only be applied to shells in the deep sea protected from the erosive action

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of waves which would destroy them within a short time on the shore.

Tidal currents in estuaries and in certain shallow areas of sea may be powerful enough to scour the bottom and wash shells along, but this does not apply to the open coastline of South Africa.

It would seem therefore that shells can not be carried very far by the sea (except for floating shells like Janthina or shells attached to floating objects) and that records of shells from unlikely places are far more probably due to incorrect labelling.

As regards the Mocambique current bringing larvae of more tropical mollusca further South, I would agree that it probably does. The plankton of this current certainly includes many tropical species. One must remember however that many molluscs such as Ficus subintermedius do not produce pelagic larvae, and that the limiting factors for those tropical shells with pelagic larvae are almost certainly not their powers of dispersal. Their distribution is related to particular living conditions, probably largely related to water temperature, and the shells will not develop, however many larvae reach our shores, if these conditions are not suitable. Therefore while conditions remain unchanged it is unlikely that "a gradual extension of the known range of many species" will result (except for extensions due to further knowledge of existing distribution patterns). There may also be temporary changes in distribution to a small extent, due to fluctuations in conditions from year to year. Most sea creatures produce large numbers of eggs and their larvae are dispersed widely by the currents, only developing in favourable environments. Sometimes where conditions have been artificially changed, such as where power station outflows warm the sea locally, species new to the area appear showing that their larvae must have been present before and just needed the right conditions to develop.

In conclusion then it seems safe to say that, except in rare circumstances, ocean currents are not capable of transporting shells long distances. Secondly, that the drifting of pelagic larvae is not going to change the existing distribution pattern of the adults greatly. Drifting by currents may seem a simple explanation of certain observed facts, but in almost all cases it is not really a valid explanation.

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SHELL COLLECTING ON MAURITIUS. by P. Elston.

The island of Mauritius in the western Indian Ocean is a place my wife and I have always wished to visit. It was her Grandfather's home until their arrival in Natal during the 1880s and the home of friends who have stayed with us on holiday and with whom we have corresponded, and of course a fabulous collecting ground for Marine Mollusca.

Late in August 1959 we at last boarded a modern 7000 ton cargo ship, with limited but luxurious accomodation and leaving Durban at sunrise were soon crossing calm blue seas in perfect weather. The first sight of land was on the second day when the southern tip of that great island, Madagascar, slowly came into sight in the dawn. We were passing up the western coast of Madagascar most of the day, and passengers and ships' officers had by this time become close friends, so that we were allowed on to the bridge. The miracle of radar was demonstrated when closing the Island of Reunion on the next evening and we observed the island as on a cinema screen. We did not go down to our cabin until well past midnight.

Next morning at daylight, four days one hour and one thousand six hundred miles from home we dropped the "hook" in the roadstead of Port Louis, the Port of Mauritius. There was a surprising amount of shipping in the sheltered haven busy loading sugar, the Island's main export. Friends on the landing jetty awaited us, all smiles, and the courteous immigration and customs officials dealt with the usual formalities promptly. Early in the morning we paid a visit to the Bank for some necessary Rupees and then went straight across the Island to the military rest camp at Le Charland. This privilege had been "wangled" as a battalion of my old regiment was stationed

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there at the time.

Next day, having hired one of the local sailing boats plus, to my relief, a powerful outboard motor and with the assurance that the fisherman in charge knew his job, we set off for the barrier reef and the outlying Islands of the Ile de Passe, through which the entrance channel to the ancient port of Mahebourg flows. After a couple of hours of twisting and turning in the crystal clear water of the inner lagoons, skimming over coral heads and seaweed, no sight of our destination made us wonder whether we were heading for the open sea, but pinning our faith in our Creole pilot we eventually sighted the Islands. Each a few acres in extent and a few feet high, the southernmost one having the wreck of a small steamship. They are on the edge of the main reef, of which the Islands at this point are a continuation. Immediately we started collecting and my wife and I lost no time, both, by habit, going in different directions. Within a few minutes frantic yells from my better half indicated that she had found a very big Conus litteratus six and a half inches long, which when cleaned was two pounds seven ozs. In all we collected seven of this species varying in size, the smaller naturally being better marked, two appearing distinctly different having two yellow bands across the shell. Tridacna squamosa were plentiful as were Strombus lentiginosus, gibberulus, decorus and dentatus. We also collected two very fine specimens of Cypraea mappa, var. alga, rather rare even in Mauritius and a large specimen of C. talpa. C. tigris and mauritiana. We literally had to avoid collecting more than necessary. They seemed everywhere and strangely enough both species were observed at times on top of dead coral heads some twelve inches out of the water busy feeding amongst the seaweed.

Leaving the Islands we explored a portion of the Barrier reef which at this part is about 30 to 40 feet wide, watching the shallow channels through which fish were entering the lagoon on the incoming tide. My wife again had the thrill of a Tonna perdx swimming on to her outstretched gloved hand, proboscis fully extended and foot fully exposed while it was busy feeding. We collected several of this species in the same way. One specimen was just over 6 inches. My theory is that they come in from deep water on the incoming tide irrespective of the time of the day or night. This is borne out by successful collection of the same shell between North Pier and Vetch's Pier, Durban, under the same conditions.

From Le Charland, with a nice and varied collection, most still smelly, we left for a short stay at our friend's house at Vacoas for a rest and shell cleaning session. Then we went to the so-called "dry" south west side of the Island to Le Morne, staying at the hotel for a week. The shell life here we were told was quite different and this proved true. Many Conus, one Harpa imperialis, small but perfect, some very good Cassia rufa and Lambis violacea one of the latter alive, and two good dead specimens. To our joy we found in Abbott's Indo-Pacific of Mollusca Vol. 1.No.3 that it is rare. To his knowledge there were only 100 reported. There are now 103. The large Lambis lambis in Mauritius is quite common, the colouring of the shells obtained were in the three tints, from light brown to very dark; but please be warned, prospective collectors, after large Conus, lambis is the worst of all to clean, and the stinging flies that gather in their thousands from nowhere when one is busy flushing out the decaying meat are terrible.

The popular method of cleaning on the Island was to let the shell rot by suspending the animal from a hook tied to a string a few inches from the ground. Eventually the shell drops away from the animal. The alternative was simply letting the whole shell rot out. It was surprising to find that very few of the inhabitants knew anything about the preparation of shells for exhibit.

Altogether during our two months stay we collected 32 Genera and several hundred species, a fair number of which were uncommon, with very little help from the fishermen. One can waste many days visiting fishermen's cottages to find no shells and denials of ever promising any. We came to greatly admire the fishermen however for their constant struggle to make a living at their dangerous occupation. A notable thing during our

stay/....



Members will be sorry to hear that our Treasurer, Miss Peggy Kempthorne is in Groote Schuur Hospital. PEGGY has had one serious operation and is due for another. We wish her a speedy recovery. As it will be some time before she is able to resume work, any moneys may be sent to the secretary.

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Mr. and Mrs. Visagé of Vanderbijlpark, have been to the Cape on a short visit. It is always pleasant to meet members who hitherto have only been a name on the list. We were able to have a shelling trip to Buffelsbay, but as the tide was not suitable, not many shells were found, except a live Conus simplex which was presented to Mrs. Visagé. We hope they had a rewarding trip up the coast.

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Mrs. Max Ackermann has become the lucky owner of a trawled Cypraea similis Gray, found by her husband amongst other shells in a trawlerman's cottage.

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Mrs. Clarice Connolly has found three Latirus rousi Sow. alive at Millers Point. (see Dr. Barnard's article) 5.2.62. Dr. Barnard was pleased to have one for the S.A. Museum as these were the first known living specimens.

At Glen Cairn she found two very large chitons, Chastopleura papilio Spengler. One the usual dark brown but the other was a glorious blue.

This week, Clarice tells me, she found a very good live specimen of Haliotis parvum Linn. at Fish Hoek.

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#### CAPE OF GOOD HOPE NATURE RESERVE.

Mrs. Connolly has handed over 50 species collected at Olifantsbos

19	"	"	"	Buffelsbay
18	"	"	"	Fish Hoek

to Mr. Middlemiss for the museum he intends having in the Reserve. Mr. Middlemiss would like our members to send him lists of shells collected in the Reserve so that he can add these to his reports.

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P.S. Hope you enjoyed the "bumper" circular! How about making the next one even better?

L.K.

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