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X THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA X
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Edited by Leila Kerr.

MEETING.

The next meeting of the Society will be held in the Lecture Hall of the S.A. Museum on Tuesday, 19th May at 8.15 p.m. This will be a Competition evening, the subject being Bivalves. A First Prize of R1 and a Second Prize of 50 cents have been donated for the best exhibits. Please have your displays in early, so that there will be ample time for judging. There will be films too.

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MEETING AT THE S.A. MUSEUM, 21.4.1964

This was well attended, apologies being received from Miss Kempthorne, Mrs. Lowry and Miss E. Kerr. Dr. Talbot in the Chair welcomed members and guests.

Mrs. M. Hanbury, Flat 7, Erica House, Pinehaven Flats, Pinetown, Natal was elected as a member.

The minutes, published in the last circular, were taken as read. There being no further business, Dr. Talbot introduced the speaker, Dr. Engelbrecht, who gave a most interesting talk on S.A. Land Snails. (The notes on this talk will be found elsewhere in this issue.)

During the tea interval, the beautiful shells on display were looked at, including some live snails brought by Dr. Engelbrecht. A wonderful Walt Disney film "Mysteries of the Deep" was shown which concluded a very pleasant evening.

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NATAL GROUP.

The next meeting of the Natal Group will be held at the Natal Museum, Loop St., Pietermaritzburg on Saturday June 13th at 2.30 p.m.

As this is our First Birthday Meeting it has been suggested that all members bring along two or three or more shells of their own particular fancy, so that all present may see and enjoy same. But PLEASE do not stay away just because you cannot bring any shells.

Make a note of the date and time now. Any friends interested in the hobby are most welcome; bring them along and let's have a record attendance.

B.L. Cook.

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LIBRARY.

The following publications have been added to the library:-

* 141 Annals of the S.A. Museum. Contributions to the Knowledge of S.A. Marine Mollusca. Part IV. Gastropoda. - K.H. Barnard. Dec. 1963. R2.30.

* 142 As above. Part V. Lamellibranchiata. - K.H. Barnard. March 1964. R3.40.

143 Malacologia. Vol. I. No. 1.

56 Indo-pacific Mollusca Vol. I. No. 5. Turridae.

* These may be obtained from the Librarian, S.A. Museum, P.O. Box 61, Cape Town.

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SUBSCRIPTIONS.

An early reminder that these are due at the end of June, R1 and Students 50 cents.

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RESIGNATION.

Mrs. J.N.O. Uys, Eerstekop, Heidelberg, Cape.

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CHANGE OF ADDRESS.

Miss M.A. Lord, 11 Baynes Street, Berea, East London.

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GENERAL NOTES.

Molluscs and Man. By A.C. van Bruggen.

(Brief summary of talk given to Natal Group Meeting on 11.4.1964)

Mollusca may be divided into three categories, according to their importance to mankind:

1. Species which threaten to destroy man, his livestock and possessions;
2. Species which are used as food;
3. Species which are used for other purposes.

First group. Six major parasitic diseases are transmitted by fresh-water snails (e.g. Bilharzia in S.A., hosts Biomphalaria and Bulinus); pond snails (Lymnaea) transmit the liver fluke, which causes liver rot in sheep, etc. Cones may sting and inject poison, which is known to be very potent (fatalities!), large Octopus may endanger swimmers and skin-divers. Imported snails may develop into agricultural pests (imported European snails in S.A., Achatina fulica throughout the Pacific, SE Asia, etc. - also a traffic hazard, cars slipping on mass concentrations of

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these snails), local snails usually only of minor importance in this respect. Also pests in oyster beds (oyster drill in U.S.A.: Urosalpinx, slipper limpet in Europe: Crepidula). Considerable damage done to wharf pilings, wooden ships, hemp lines by wood-borers (Teredo and allies); not so important any more because fewer wooden ships, etc.

Second group. Food species well known, mainly marine (Octopus and other Cephalopods, Haliotis, Littorina, oysters, cockles, mussels, etc.), a few terrestrial species (Helix, recognised by Roman Catholic church as Lent food; Achatina fulica, see above, saved lives of many prisoners of war in Indo-Pacific area) and few, if any freshwater species. Cephalopod fisheries very important, annual world catch fluctuates around one million tons, of which 2/3 produced by Japan; this kind of seafood has a high nutritive value but is very tough and has to be softened - it is said that in Honolulu the islanders keep old washing machines on the beach to pound their octopuses. Indirectly a vast quantity of molluscs is used as bait in the fishing industries of the world.

Third group. Industry, viz., pearls (natural or cultivated, vast amount of money invested, many people employed), lime burning, curio trade and allied business (in Florida 5-million-dollar-a-year seashell industry!); formerly purple industry, mainly centred in the Mediterranean (species of Muricidae, very costly affair, 240,000 specimens needed for one ounce of dye).

Mention may also be made of primitive tools (cowries for burnishing paper and ironing lace), window panes (Placenta), buttons (from freshwater bivalves), money in primitive communities (mainly Cypraea moneta, resultant trade and transport to Europe for distribution to Africa, ships sunk off British and Dutch coast, so that money cowries can be found on British and Dutch beaches; money cowries were handled in strings of 40, value increased with distance from harbour).

Shells play a considerable role as ornaments, sometimes also in connection with primitive religions. Cowries have been found in ancient graves, egg cowry (Ovula ovum) adorns the prow of war canoes in the Pacific, golden cowry (Cypraea aurantium) as badge of office for chiefs in same region. Also in Europe: very popular shell boxes in Victorian times and Pecten jacobaeus (scallop) to prove that one had made the pilgrimage to St. Jago de Compostela in Spain.

Many patterns and designs are derived from molluscs and shells (wallpaper, textiles) and they have always been an inspiration to the artist (famous still life paintings!).

This summary is far from complete, but will give some ideas for further study of this fascinating subject.

South Africa's Ex-Pisce Shells. By Helen Boswell.

There is a certain fascination about the shells that one is fortunate enough to acquire from the stomachs of fish. Fascinating because you never know what may turn up, either something so common that you can pick them up by the dozen along the local beaches, or something so rare that it becomes the greatest treasure in your collection. Also there is more hope of acquiring something that may prove to be new to science, than with other methods of shell collecting. I mention the word fortunate, and there are two or three reasons for doing so. First of all there is the never ending enquiry of fishermen you may meet, inquiring if they would be kind enough to investigate the contents of the stomachs of the fish they catch, and retain for you anything in the shell line. I am sorry to say the results are usually disappointing in the extreme, and it becomes a case of 'out of sight - out of mind'. There

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are of course the exceptions, which make up for it all. But you may have to wait a year or two before getting even one or two specimens, and they may be useless.

More so than in other ways of collecting shells, infinite patience and perseverance is needed to build up even the smallest collection of "ex-pisce" specimens. Further I should mention the number of disappointments you will encounter in the few specimens that come your way. Only one shell in twenty will be a perfect and really desirable specimen, and only one in ten reasonably good. I have had beautiful large Voluta ponsonbyi with teeth holes pierced throught them, or the lips badly damaged, or even worse, a perfect Cypraea fultoni but with a hole in it. Also to be taken into consideration is the fact that a fish must be caught within two hours of having consumed a shell, otherwise the shells will be ruined by stomach acids. Last but not least is the fact, which I have had from very good authority, that only about one fish in ten, of the species which eat these shells, will have a shell in its stomach. Naturally all sorts of other edibles form their diet in addition to shells.

Sparodon durbanensis (Castlenau), commonly known as the "Mussel-cracker", is the fish to be relied upon, more than any other, to produce these exciting shells for us. This species is found only in South Africa off the Natal coast. It attains a maximum weight of approximately 40 lbs., and develops massive jaws and powerful teeth. Nowhere is it abundant but they are often captured in pairs. I understand they only put in an appearance for two months of the year, and are caught only by rod and hand line. So apart from the difficulty of obtaining "ex-pisce" shells, is the scarcity of the fish from which they are derived.

I should mention also that I have obtained three small cowries from the stomach of a fish commonly called a "Slinger", Chrysoblephus puniceus Gilchrist and Thompson, which occurs occasionally along the east coast of Africa, in deep water.

The following list of "ex-pisce" shells in my collection, which I have patiently acquired during the past fourteen years, may be of interest to readers:

Conus natalis Sow., C. natalis Sow. var. gilchristi, C. infrenatis Rve., C. gubernator Brug., C. eumites Tomlin; Murex banksii Sow., M. axicornis Lam., M. ternispina Lam., M. fallax, E.A. Smith; Voluta (Alcithoe) ponsonbyi E.A. Smith, V. (Alcithoe) africana Rve., V. (Alcithoe) africana var. rietensis Turton, V. (Lyria) queketti E.A. Smith; Cypraea arabica L. var. immanis Schilder, C. broderipii Sow., C. cernica Sow., C. citrina Gray, C. fultoni Sow., C. helvola L. var. argella Melvill, C. vitellus L. var. dama Perry; Ancilla contusa Rve., A. decipiens E.A. Smith, A. optima Sow.; Fusus africanus Sow., F. oblitus Rve.; Fasciolaria strebeli Fulton; Latirus abnormis Sow.; Clavatula paralis E.A. Smith; Turris gilchristi Sow., T. tigrina Lam., T. marmorata Lam., T. marmorata var. maculosa Rve.; Nassarius filmerae Sow., N. algida (?); Melapium elatum S. & W.; Astralium andersoni E.A. Smith; Cymatium olearium Linn.; Bursa granifera Lam.; Charonia pustulata Euthyme; Babylonia papillaris Sow. (2 forms); Euthria queketti E.A. Smith, E. fuscotincta Sow.; Tonna luteostoma Kuster; Ficus decussata Wood; Turitella sanguinea Rve.; Vasum truncatum Sow.; Pisania trilonoides Rve.; Pirenella boswellae Barnard; Harpa ventricosa Lam., H. minor Lam. var. crassa Phil.

The Genus "Ficus" in South Africa. By D.H. Kennelly.

A study of available literature has revealed the usual difference of opinion among scientists over the specific nomenclature in this genus, and it is hoped that some day an up-to-date Monograph of the Ficidae will be published in order to clarify the position.

Up to the present time two species have been recorded as occurring on the South African coast, namely:-

Ficus ficus Linn. Limpopo River Mouth, off Tugela River (Natal), off Umhloti River, off Tongaat River, and off Hood Point (East London).

The East London Museum has two shells from Zanzibar, which appear to be this species. In 1963 our well known collector, Percy Elston, obtained a live specimen in Port Natal.

Ficus subintermedius d'Orbigny. Known as a Japanese shell, but several specimens have been recorded by members of our Society as taken on the Natal coast, and the East London Museum has a worn specimen found at Bushmans River.

Both the foregoing are distributed in the Indo/Pacific region.

With regard to species of Ficus occurring elsewhere, the writer has noted the following:-

Ficus communis Roding. Gulf of Mexico, and Florida coast U.S.A. Described and figured by R. Tucker Abbott.

Joyce Allan describes and figures a shell under this name as occurring in Australia. In a later publication, Rippingale and McMichael state the Australian shell to be Ficus ficoides Lamarck, and not F. communis (olim).

S. Hirase figures both F. ficus Linn and F. subintermedius d'Orbigny, but shows F. ficoides Lamarck as a synonym of the latter.

Another writer - T. Kira - figures subintermedius d'Orbigny, and gracilis Sowerby. The writer has not seen a specimen of F. gracilis nor has any reference to this shell been found elsewhere.

There seems to be some confusion regarding the different species of Ficus occurring in the Indo/Pacific, and as already mentioned a Monograph would be very welcome.

References:- Amsterdam Sea Shells - R. Tucker Abbott.
Australian Shells - Joyce Allan.
Queensland & Great Barrier Reef Shells - Rippingale & McMichael.
Illustrated Japanese Shells - T. Kira
Handbook of Japanese Shells - S. Hirase.
Annals South African Museum, Vol XLVII, Part 1, K.H. Barnard.

Also see Circulars No.28, page 4. No.29, page 5 and No.38, page 4.

A Note on the Distribution, Breeding Habits, and the Economic Importance of Some Terrestrial Snails in South Africa.

By D. van Z. Engelbrecht.

The terrestrial snails lack the beauty of their marine relatives and economically they are far less important than some of the disease-bearing freshwater forms. The results of their activities are less spectacular than those of the latter, and it is only the farmer and gardener who are concerned about them. In South Africa tens of

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thousands of rands are spent each year by the public to combat their activities, and with the extension of irrigation projects which will undoubtedly create opportunities for their dispersal, this figure will increase. It is therefore important that we should know more about these forms if we want to discover more effective methods of control.

In the Western Cape the brown snail Helix aspersa, the grey snail Theba pisana, and a variety of slugs are the most important forms to attract the attention of the gardener. Both shelled forms are immigrants from Europe. We have it on the authority of Lord de Villiers that Helix aspersa was introduced to the Cape by a Frenchman Mons. Dastre at about 1870, who was under the impression that it was the edible snail Helix pomatia. The new immigrants must have found conditions at the Cape favourable because they multiplied to such an extent that Connolly (1912) reported that "they threatened -- to oust many of the rarer indigenous species from their last foothold by eating them out of house and home" (p. 161). In 1915 Helix aspersa was reported to be present in Kimberley.

Theba pisana, a native of the Mediterranean regions of Europe and Northern Africa was first recorded in South Africa in 1881 by Fairbridge who collected specimens on the now demolished Gallows Hill near Cape Town Docks (Connolly, 1912). It seemed to have favoured the coastal areas. In 1912 it was reported to occur only as far inland as Stellenbosch.

Apart from the massive work of Connolly (1939) the paper by Dürr (1946) and the localities given in Barnard's "A Beginner's Guide to South African Shells", all reports on the distribution of these forms in South Africa date from the early years of this century.

Helix aspersa has been recorded to occur throughout the Cape Peninsula, Robben Island, Stellenbosch, Mossel Bay, Port Elizabeth, Grahamstown, East London, Durban, Kimberley and Johannesburg.

Dürr (1946) listed the following recorded localities for Theba pisana: Cape Peninsula, Robben Island, Stellenbosch, East London, Port Elizabeth, Somerset West, Gordons Bay, Kowie, George, Mossel Bay, Uitenhage, Vredenburg and Durban.

In order to gain some knowledge of the present distribution of Helix, Theba and slugs, students were requested to collect these during the June vacation of 1963. Specimens of Helix aspersa were obtained from:- Cape Province: Adelaide, Alexander Bay, Alice, Bedford, Bonnievale, Caledon, Ceres, East London, French Hoek, George, Herold's Bay, Hermanus, Knysna, Kuils River, Mossel Bay, Paarl, Riversdale, Robertson, Saldanha Bay, Somerset West, Stanford, Stellenbosch, Steytlerville, Ugie, Uitenhage, Umtata, Worcester and Queenstown; Natal: Estcourt; Orange Free State: Bloemfontein, Ficksburg and Sasolburg; Transvaal: Germiston, Johannesburg, Randfontein and Springs. Specimens of Theba pisana were collected from Cape Town, Kuils River, Mossel Bay, Oranjemund, Stellenbosch and the Strand.

Specimens of slugs belonging to a variety of genera and species, and still to be identified were obtained from:- Cape Province: Aberdeen, Alexander Bay, Caledon, Cape Town, Ceres, De Doorns, French Hoek, George, Hanover, Knysna, Malmesbury, Montague, Moorreesburg, Nieuwoudtville, Oudtshoorn, Paarl, Porterville, Riversdale, Robertson, Rosmead, Stanford, Somerset West, Stellenbosch, Strand, Upington, Vredendal, Willowmore and Worcester; Orange Free State: Marquard and Philippolis; Transvaal: Johannesburg.

The results of this preliminary collection, incomplete as it necessarily must be, is none the less very interesting. It shows that Theba pisana does not stray far from the coast, Stellenbosch and Uitenhage seem to be the limits of its ventures into the interior.

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Another interesting point is that slugs occur in the central part of the Cape Province (Aberdeen, Hanover, Nieuwoudtville and Rosmead), and at Philippolis in the Orange Free State, where the shelled forms are apparently not present. It seems logical to assume that without the protection of a shell slugs would find the more severe climatic conditions in this region less favourable than would the shelled ones. Slugs desiccate easily. Specimens escaping in the laboratory usually die within a few hours and within a few yards from the terraria in which they are kept. It is probably their habit of burrowing, something which the Helix and Theba do not have, which affords some protection against desiccation and severe climatic changes.

The question arises as to how these snails, and it is safer to refer here only to Helix and Theba, because we know more or less when and where they were first introduced, got to their present localities.

In extensively cultivated areas they undoubtedly spread just like any other animal to adjoining areas if conditions there are suitable. Their presence, however, in isolated communities over the country suggests that they were transported there together with agricultural produce. Lettuces from the Cape Flats have proved on examination to be harbouring young individuals of Theba, Helix and slugs, and the author has often encountered slugs from Natal amongst bananas. It is also possible that aestivating Helix and Theba can be transported on cars and railway carriages from one locality to another.

Alexander Bay and Oranjemund are isolated towns and yet Theba, Helix and slugs occur there. It is unlikely that these animals reached that area via the barren coastal region of Namaoqualand, and it is equally unlikely that they reached it via the Orange River as the lower part of this is not infested by these forms. The only explanation for their occurrence there is that they were transported there in the early days of the mining operations together with fresh vegetables.

(To be continued in next Circular)

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NATAL NOTES. Sixth Meeting of the Natal Group of the Society. By Les Cock.

This Meeting took place at the Natal Museum, Pietermaritsburg, on Saturday afternoon, the 11th April, at which there were 12 members and visitors present.

Dr. v. Bruggen occupied the Chair, and the first part of the meeting was informal with members passing round the table various shells for all to see. A fine range of Marginellas was exhibited by Mr. Kilburn, and a large selection of the much neglected small shells were shown by Mrs. Short, whom we were pleased to welcome for the first time at one of our meetings. Mr. Dee passed round a fine specimen of Thatcheria mirabilis Sow., while Mrs. Cook brought along the "fighting pear shell" Melangena corona, a beautiful shell from Florida U.S.A. Some Cypraea including Carneola, Caurica, Helvola, Histero and others all from the Seychelles, were brought along by Mrs. Baxter, and after a general discussion on shells the first part of the meeting ended with tea.

The second period of the meeting was taken up by Dr. v. Bruggen of the Natal Museum who gave an interesting talk entitled "Molluscs and Man". This was mainly the story of the uses of the mollusc to man, leading up to some of the vast industries of today. However there is another side to the story as the mollusc also threatens to destroy man in certain instances. This all added up to a very absorbing story, and it is hoped to give a summary in either this or the next Circular if space permits.

/The afternoon .....

The afternoon was rounded off by Mr. Dee giving some aspects and experiences in Skin-diving -- very interesting to those of us who have to stay up above.

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NOTES ON "CONUS GLORIAMARIS" ? CHEMNITZ. By D.H. Kennelly.

As this shell is the best known, and most coveted, of all marine shells, the purpose of this paper is to present some further data before the Members of our Society, which may be of interest.

Of the numerous accounts in scientific and non-scientific journals, one of the more recent appears in the Journal of Conchology, Vol. 25, No. 4, April 1963. This article, written in October 1962 by S.P. Dance and F.R. Woodward, gives full details of the discovery of a specimen of gloriamaris in the Hunterian Museum, University of Glasgow.

This shell has a known history covering over 100 years. It had lain unnoticed in the Hunterian Museum for many years, and was brought to light by Mr. F.R. Woodward during an inspection of the shell collection. Mr. S.P. Dance has for some time been collecting data relative to the known specimens of this rare shell, and states that at date (Oct. 1962) the Glasgow shell may be the twenty-fifth specimen known to exist in collections throughout the world.

Recently the writer received a copy of the Hawaiian Shell News for March 1964, from his very good friend Mrs. Helen Boswell. This paper contains a most interesting report of the finding of three more specimens of gloriamaris at the latter end of 1963.

One was found by Mrs. Anne Appleton at Praed Point, Rabaul, New Guinea, in September 1963, which has been sold to an American in January, 1964 for 400 dollars.

The second shell was found by Mr. Edwards in the Duke of York Islands, and has been presented to the Australian Museum, Sydney.

The third was obtained by a shell collector, Mr. Harry Hoehler, the Master of a small trading ship. This shell was in a basket of shells purchased from a native woman at Teop Island, Bougainville.

Mr. Hoehler is reported to be negotiating the sale of this specimen.

The article in the Hawaiian Shell News, written by Mr. R. Hayes of Rabaul, is illustrated with photos of the shells and the lucky finders.

The area in which these shells were obtained, is bounded by the Gazelle Peninsula of New Britain to the coast of Bougainville, and if the figure mentioned by Mr. Dance is correct, then there are now twenty-eight gloriamaris known to exist.

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CAPE NOTES. By L. Kerr.

The month of April has been notable for the number of Argonauta argo collected along the False Bay coast. Not since 1958 have we had such a good season. Unfortunately, ill health has prevented the writer from taking her usual early morning walks, but nevertheless, a fair amount have been picked up.

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