THE	CONCHOLOGISTS'	NEWSLETTER
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No. 16

Compiled by: P. E. Negus,

March 1966

London, S.W.1.

Produced by 'The Conchological Society of Great Britain and Ireland'

# JUNIOR MEMBERSHIP

The following were elected to the Junior Membership of the Society on the dates given:-





# SMALL MARINE AQUARIA

Marine aquaria have a reputation for being difficult to manage, owing to various factors such as the high oxygen requirements of the animals, their intolerance of variations in salinity, and the extreme rapidity with which they decompose after death. However, provided one is not too ambitious, a variety of marine organisms can be kept alive and more or less healthy for periods of up to two years with very little trouble, at a capital outlay of a few shillings, if the following principles are rigorously adhered to.

1. The aquarium must be as broad and shallow as possible so that the maximum surface is exposed to the air in relation to the volume of water. Provided the water has a maximum depth of  $2\frac{1}{2}$  inches, oxygen can diffuse in it fast enough to keep all but the most fastidious animals alive. There must be no contact between sea water and metals of any kind, so metal-framed aquaria are definitely excluded. All-glass or all-plastic aquaria are the only safe things to use. A transparent plastic cake-box with a close-fitting lid is ideal, and is relatively cheap. Whatever kind of vessel is used, an airtight cover is essential. Any water lost by evaporation condenses on the lid and drops back. In this way the salinity remains practically unaltered for months.

2. The water is most cheaply obtained by filling a plastic jerry-can or other large non-metallic vessel from the sea. A screw-top is essential and preferable to a cork which is absorbent and may contain residues of fruit-juice, detergent, or whatever was in the container at first. Whether a new or second-hand jerrycan is used it should first be scalded out several times with boiling water. If one is not fortunate enough to possess a car, certain luggage problems present themselves (It is amazing how heavy one gallon of water is!). British Rail will take a plastic can of seawater as it is, but glass bottles must be protected by some kind of crate. I strongly advise sending the water home some days in advance, as it is very embarrassing to arrive home with a jar of animals gasping for a drink, and find that there is nothing to put them in for a couple of days.

Sea water should be collected as far from the shore as possible to avoid the suspended dirt churned up by the waves. This is easily arranged by taking a boat trip, or dangling a bucket on a rope from the end of the pier. To be on the safe side it should be filtered through a wad of clean cotton wool in a plastic funnel before it goes into the aquarium.

3. The furniture of the aquarium should consist of a one inch layer of fine very well washed sand, and one or two smooth rocks reaching nearly to the top

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of the water. Fine sand is better than gravel, which tends to collect small bits of dead weed, etc. which decays and fouls the water. Any rubbish lies on the top of the sand and can easily be picked out. Stones collected on the seashore are preferable to flints from the garden, as they have small natural growths of weed on them. When selecting these stones it is imperative to avoid ones with acorn barnacles, sponges, and brown weeds attached to them, as these organisms die almost at once and pollute the water. Hard chalk pebbles are excellent provided any broken surfaces are first washed free of loose dust. The sand used should be sea-sand, but bird sand is a good substitute if very thoroughly washed. The slightest trace of dust in it makes clouds in the water which take a long time to settle.

You will, of course, want some seaweeds. Only the green weeds will survive in aquaria, and they must be attached to small stones. Choose little stones with a very meagre growth on them - it is amazing how much weed there is on them when it is fluffed up in the aquarium. After a time minute green and brown growths appear on their own, and these should be left as far as possible as they are adapted to tank conditions and will thrive there. Don't overdo the decorations, and above all avoid leaving cracks and crannies where things can die and decompose unnoticed, and poison everything else.

<sup>4</sup>. The position in which the aquarium is kept is of some importance. Sea temperatures are remarkably stable, and only a few very tough creatures can stand the sharp fluctuations in temperature in rock pools. Even there they only have to put up with the conditions for a few hours until the tide returns to bring things back to normal. There are no tides coming to the rescue in a plastic cake-box! Direct sunshine must be avoided at all costs. A northfacing window in a cellar is the ideal position. Failing that, any other north window. East is not quite so good, West is bad, and South means death. If the tank has to get the sun, then shading of some kind must be provided. On the other hand darkness or very dim light is equally fatal, as the plants will not grow. In such a tiny volume of water plant life does the very important job not only of supplying oxygen, but removing the soluble nitrogenous excretory compounds of the animals. Intense winter cold may be fatal. 50°F is perhaps the ideal temperature. -106 -

5. The choice of animals for the aquarium is almost unlimited, and depends entirely on the desires of the aquarium keeper. However some creatures just will not live in a small unaerated aquarium for more than a day or two. The most outstanding of these are limpets, barnacles, nudibrancs, all the most attractive sea anemones, polyzoa, sponges, ascidians, sea urchins, and those animals of the "splash zone" which are almost never covered by the tide, e.g. Littorina saxatilis. On the other hand some creatures seem to be virtually indestructible, among which are to be included the common beadlet anemone, baby mussels, the various top-shells, Rissoa spp., baby lug-worms (useful scavengers these), the big-clawed porcellam crabs, and toughest of all, the common green shore-crab. The latter is a sure-fire winner if it can have a tank to itself. It will eat almost anything, even bread, or starve happily for a fortnight, and soon becomes so tame as to follow its owner's finger round the tank. One caught when it is pea-sized and fed regularly will cast a series of skins and outgrow its space in a season. It is, however, a greedy, bloodthirsty, treacherous and exceedingly dirty pirate in whose company nothing will survive for long, not even another crab.

A third list given here, of animals which will survive for about a week, possibly longer, but are well worth a short trial as they include some of the most fascinating creatures on the shore: Littorina littorea, L. obtusata, chitons, starfish, <u>Venus</u> and <u>Tellina</u>, <u>Lacuna</u>, prawns and hermit crabs. With these it seems to be the food which is at fault, although why the common periwinkle, (first on the list), is unhappy in a tank I cannot make out.

The little screw-shrimps (Gammarus spp.), which look very much like the freshwater shrimp, are often introduced with weeds. They live very well and breed in a most gratifying manner, but should be kept in check as they can strip a tank of every shred of green. When this happened in my cake-box aquarium I kept the culture alive on finely shredded lettuce and breadcrumbs.

6. The number of animals per tank must be very strictly limited to an absolute minimum. For a 12-inch diameter tank a good community would be: One medium sized beadlet anemone, one edible mussel about  $\frac{1}{2}$  inch long, two small top-shells, and a prawn. Even these may be too much in hot weather.

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7. <u>Maintenance</u> If possible the aquarium should be inspected daily, and any dead animals removed at once. In sea water decomposition is unbelievably rapid, so that what with the bacteria competing for oxygen and the foul gases given off from the corpse, a sparkling lively community can become a stinking black mess within 24 hours. It is therefore a good thing to have a supply of fresh sea water at hand ready for a complete change. The initial supply of water should be double what is required for the aquarium, and the excess can remain in the original container in a cool place. Don't throw away the foul water. Filter it carefully and store it separately. An occasional shake to aerate it, followed by a brief uncorking to let out the smell, and the precious liquid will be ready to use again in a few months.

Increase in salinity due to evaporation is a bugbear which is easily overcome by marking the water level on the tank by means of a strip of elastoplast or indelible ink, and keeping it topped up with distilled or rain-water. Little and often is safer than sudden big dilutions at long intervals. If water is to be put into store, make up the level first. If the aquarium has a good airtight lid, then topping-up may be needed only 2 or 3 times a year.

Finally, <u>feeding</u>. A good deal of judgment is needed in this. Marine life is very nutritious, land and freshwater life much less. Consequently one finds that small rock pool fishes grow very thin when fed on earthworms and daphnia, so that there must be a certain amount of fishmonger's mussels and fish scraps for them. Sea anemones eat very little, and thrive on a small section of earthworm or a tiny scrap of fish once a fortnight. Whatever food is used, it should be removed within an hour if not eaten. The uncarnivorous inhabitants just have to look after themselves - another reason for having some green sea-weeds in the aquarium.

It only remains for me to urge all those members who are interested in the living inhabitants of the shells they collect to take the plunge into this highly specialised but fascinating branch of aquarium keeping. The layout in cash is very small, but the rewards can be tremendous if you are successful. A small aquarium such as I have described will remain healthy for a year, and struggle on for two years with luck, but in these days when most families take an annual seaside holiday it should generally be possible to start afresh each year. If anyone wants advice about keeping sea animals I will do my best to oblige, but I am by no stretch of the imagination an expert in this field and can only offer you the benefit of my very limited experience. My address is:

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Basingstoke, Hants.

M. R. BLOCK

# VOLVA VOLVA, (LINN), IN SOUTH AFRICAN WATERS

The distribution of this species has long been quoted as East Indies to Japan, but Barnard (1963), reports living specimens taken off the Natal Coast, and as far south as Cape Morgan, (Morgan Bay, one mile south of the Great Kei River).

Due to careful collecting by members of the Conchological Society of Southern Africa, the East London Museum has been able to record a fresh dead example from Xora Mouth, Transkei Coast, and this bridges the gap between the Natal Coast and Cape Morgan.

Later discoveries have now been recorded of fresh dead specimens from Gonubie and Bonza Bay. The last mentioned locality being only five miles north of East London.

From this evidence it may well be concluded that the range of Volva volva extends much further south than hitherto known.

Efforts are now being made to locate living examples at the new localities, to prove the increased range.

Reference:- Barnard, K. H., Contributions to South African Marine Mollusca. Annals South African Museum, Vol. XLVII, Part 1, Feb. 1963.

> D. H. KENNELLY Conchologist, East London Museum

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### ASSOCIATION OF THE AMPHIPOD HYALE PERIERI (LUCAS)

# WITH NUCELLA LAPILLUS L.

An association between a species of amphipod (Crustacea) and Nucella lapillus L. was noted in a rock pool on an exposed headland at Godrevy near Camborne, Cornwall (National Grid SW (10) 5843) on 21.4.1965. The amphipods were noticed emerging from a couple of specimens of Nucella when these were lifted from the pool, so one specimen of the whelk was brought away for further examination. When this was placed in a jar of sea water, five amphipods emerged from its mantle cavity which they re-entered at fairly frequent intervals, occasionally wriggling up the siphon canal. Apparently they caused no inconvenience or irritation to the mollusc and were themselves unharmed even when inside the pallial cavity with the operculum tightly withdrawn. Although they moved freely through the water, they spent a lot of time resting or moving over the outer surface of the shell. Specimens submitted to Mr. G. M. Spooner of the Flymouth Laboratory, Marine Biological Association were kindly confirmed by him to be the talitrid amphipod Hyale perieri (Lucas), known to associate with Patella in exposed rock pools. All were immature. Mr. Spooner writes (in litt. 19.5.65) "The species is rather characteristic of exposed rocky shores and I have observed it in several parts of the North Cornwall coast, Lizard peninsula, etc., intertidally in exposed situations: it is also on the Eddystone Rock. Whereas we are familiar with the habitat of the immature, particularly the smaller sizes, seeking shelter under the mantle of limpets, I know of no record of their associating with other gastropods. It is an interesting observation, though perhaps not wholly unexpected. One would like to know more about the life history of this species."

It would indeed be interesting to know if there is a food or reproductive link in the life history, or whether this species of Hyale makes use of such molluscs as <u>Patella</u> and <u>Nucella</u> purely for the shelter they afford. In France the habitat is given as tufts of algae and empty barnacle shells (Perrier, R., Editor, 1929, Crustacea and Arachnida Faune de la France, vol. 2 p. 180) so shelter is obviously of considerable importance. As <u>Hyale perieri</u> is evidently confined to exposed rocky shores and is a south European species, reaching its northernmost limit in Britain on our south-west coasts, its restricted ecological and geographical ranges must somewhat limit further observations: it is obviously worth further study, and it suggests how ectoparasitic relationships may develop from casual scavenging or shelter requirements.

Acknowledgments are made to Master Andrew Pearson for drawing my attention to these amphipods, and to Mr. G. M. Spooner for confirming the identification and his helpful comments.

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STELLA M. TURK

## CORNISH LOCALITIES FOR ARION LUSITANICUS MABILLE

As anticipated, <u>Arion lusitanicus</u>, which was found in the Isles of Scilly in June 1963 and near Camborne in September 1963 (S.M.T.), has proved to be widespread, and in some places abundant, in Cornwall. The following is a list of its known stations in the county to December 1965.

St. Mary's, Scilly; Tregavarah Downs, Penzance; near Relubbas, St. Erth; Reskadinnick, Camborne (all S.M.T.); St. Just-in-Penwith; Penzance (Penlee Gardens and back of Leskinnick Terrace); between Treen and Gurnard's Head (all A.E.E.); Lelant (Miss P. J. White); Ponsonooth, Truro (Mrs. B. E. R. Hall); Truro (Mrs. E. F. Brown); Lower Treneague, Wadebridge (Miss D. Stewart); Stoptide, Rock, vice-county 2 (Miss E. I. Harvey); Garden, Quethiock, Liskeard, vice-county 2 (Mrs. C. Yelland). The St. Erth locality is a riverbank and at Treen the slugs were found in a pasture field, but the other localities are in or close to gardens or arable fields. <u>A. lusitanicus</u> is also now known from the adjacent county of Devon (Alphington) and from a garden at Salisbury (J. A. Carman); it should be searched for in Somerset and Dorset to link up the Devon and Wiltshire stations.

STELLA M. TURK & A. E. ELLIS

#### GIGANTIC SERPENT REALLY A GASTROPOD!

In the Zoological Section of the Hunterian Museum of Glasgow University is a specimen from the Gran Chaco region of South America described in 1926 by

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John Graham Kerr, then Regius Professor of Zoology in the University, as the poison-fang of an opisthoglyphous snake. The fang,  $6\frac{1}{2}$  cm. long and curved like the claw of a tiger, has a deep groove on its outer face terminating at the point of the fang which is blunted by slight breakage and abrasion. Two narrow, parallel, chocolate-coloured stripes run along the apical two-thirds of its length. Kerr named his specimen Bothrodon pridii after its discoverer, Andrew Pride. He considered that its strongly curved hook-like form indicated that it was used "not for striking, but for the effective retention of the struggling prey while the poison passed into the wound and did its work".

As can be imagined, the publication of the description and figure of Bothrodon stimulated the imagination of herpetologists. The fang is approximately nine times larger than that of a six-foot boomslang and, as the poisonconducting teeth of the rear-fanged snakes are short in proportion to the bodylength, Bothrodon would have reached hitherto quite unheard of dimensions. Such a comparison would indicate a poisonous snake nearly sixty feet long, or twice the size of the largest pythons existing today. As the specimen was obtained from the silt-like deposit of Pleistocene or later age which covers the region of the Gran Chaco, Ditmars suggests that it probably fed on those kinds of small mammals which still inhabit that district today, mainly peccaries and various rodents, "if such a monster would deign to note the latter", and he goes on to imagine the awesome picture it must have presented if it were quick and savage like the boomslang. As it was the first poisonous monster to come to scientific attention, "the thought it inspires rather dulls the conjectural image of that dinosaurian star, Tyranosaurus, whose races passed away ages before this mammoth Bothrodon prowled the soil".

Such fantasies were eventually dispelled, however, when Quenstedt deduced, from an examination of a coloured cast of the Bothrodon fang sent by Professor Kerr to the Palaeontological Museum of Berlin University, that the specimen was in reality one of the finger-like processes from around the aperture of the Recent Indo-Pacific gastropod Lambis (Harpago) chiragra. Not only the shape but also the colour - the bright-red inner lip and the two dark-brown longitudinal stripes on the outside of the shell fragment confirmed the correct identification. As the locality "Gran Chaco" cannot be doubted, the discovery can only be explained in terms of a human introduction. So Bothrodon pridii, born a "serpent of gigantic dimensions" is finally laid to rest as a most unexpected synonym of the scorpion-shell Lambis chiragra.

#### References

DITMARS, R. L., 1931. Snakes of the World. New York: The Macmillan Company. pp. 94-95. KERR, J. G., 1926. Bothrodon pridii, an extinct serpent of gigantic dimensions. Proc. R. Soc. Edinb. 46: 314-315. QUENSTEDT, W., 1939 in KUHN, O., Squamata: Lacertilia et Ophidia in QUENSTEDT, W. (Ed.), Fossilium Catalogus 1: Animalia (pars 86): footnote to p. 25 of Ophidia. - 109-

DAVID HEPPELL

### A NOTE ON THE ARK SHELLS

The Arcidae form a family about which very little seems to be known, and literature is conspicuously lacking. There are three British Ark shells of which one, <u>A. pectunculoides</u>, is found only by dredging deep waters off the Orkney and Shetland coasts.

During a recent visit to Crkney we were able to examine the shell fauna on the magnificent rocky piece of coast known as the Brough of Birsay, where a great number of species can often be obtained. One very striking aspect of the molluscan fauna of that spot was its almost exact correspondence with that at a place at the other end of the kingdom - Shell Bay, Herm, in the Channel Islands. Even the extremely young, brick-red <u>Capulus hungaricus</u> is sometimes to be had at both places, although the adult is never found. As the topography of the coast-line at the two places is as different as could be, the reason for the similarity of their shells has yet to be explained.

Arca lactea is one shell which is common at Herm but does not occur anywhere in the Orkneys; <u>A. tetragona</u> however, can be found in fair numbers at both places. It lives well below the tide range, and as the shells separate as soon as the animal dies, only single valves are found on the beach. As

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Rendall notes in his 'Mollusca Orcadensia', the valves are much abraded and usually found in the shell drift.

An inspection of the specimens taken at Birsay established that the abrasion, often very pronounced, occurs only on the central panel of the shell's surface, between the umbones (where it commences), and the ventral margin, where it is often severe enough to reduce the edge to the sharpness of a knifeedge, and to remove at least half the thickness of the valve over its central portion. As the anterior and posterior surfaces are always completely untouched, this abrasion must occur in life. A re-examination of the material gathered at Herm showed that the same thing occurs there but to a much less marked extent, and it must thus be due to some habit indulged in by the particular species. Edward Step in 'Shell Life' attempts an explanation of this point, saying that the species loves to spend its life in the crevices of rocks or attached by its byssus to the empty shells of other bivalves. He claims that the habit of grubbing in crannies and among rubbish results in most of its ornamentation getting rubbed off.

Such a life as that he describes would of course, have the same effect in the case of the human species, but would always tend to produce a generally knocked-about looking specimen, whereas the wear on <u>A. tetragona</u> has more the appearance of resulting from some small rubbing movement persistently taking place over a long period. If these molluscs were all able to anchor themselves in crannies of just the correct width, and were to open their valves and rock themselves longitudinally in some way, the flattened facets might result, but this could not happen in the case of those living in decontrolled bivalve shells.

We have examined material dredged by Rendall in twelve fathoms from North of Galt Ness, Shapinsay; the specimens possess a quite shaggy epidermis of a dirty brown colour, slightly worn to a dirty white on the umbones, and developed to a most striking comb-like beard on the postero-ventral keel. The specimens have almost certainly not lived in crannies.

Jeffreys says that the species can be found at low water mark in Bantry Bay, closely wedged in the chinks of slate rocks, the shape being distorted and the surface scraped in consequence of the confined position. The abrasion, he says, is perhaps caused by the uneasiness of the animal through its continual endeavours to extricate itself or change its position. Thus, although Step considers that they lead a fine Bohemian life, Jeffreys thinks that they spend most of their time feeling miserable. Certainly it would seem a foolish provision of Nature to let the thing get into a small cranny and then make it uncomfortable for life. Perhaps the animal's movements do something to improve the flow of water to the gills.

The fact that Rendall and others have been able sometimes to take this species in the dredge seems to suggest that some of them do indeed live attached to other shells, but others, snug in their reputed crannies, must be almost unobtainable, so that practically nothing is actually known of their habits, grubby or otherwise. No other British mollusc that I know of, not even Pholas, abrades itself in this way. The tropical arks seem to show abrasion only on the extreme points of the umbones, together with a certain amount of polish over the central portions of the shells. It would be interesting to know more about the life of A. tetragona.

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T. E. CROWLEY J. CROWLEY

# ARCHACHATINA MARGINATA OVUM (PFEIFFER) FOUND ALIVE IN THE LONDON AREA

In September 1965, Mr. P. Taylor of the Royal Botanic Gardens, Kew gave me an adult living specimen of Archachatina marginata ovum (Pfeiffer) measuring about 120 mm. in length, which had been collected by Mr. P. W. Cribb near the Hanworth Crematorium (One inch O.S. Sheet 160 5121/1732).

A year ago another larger specimen was found on a school playing field a few hundred yards away from the crematorium, but I have not seen this. It appeared obvious from the nearness of Hanworth to London Airport that the molluscs had been introduced by air from West Africa and I am indebted to Mr. T. E. Crowley for drawing my attention to a photograph and caption in "The Sunday Telegraph" for the 8th. March 1964 describing a specimen found at London Airport. Unfortunately the caption contents obviously refer to

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Achatina fulica Bowdich, although the photograph clearly shows an Archachatina with a typically blunt shell. According to Mr. Crowley, the snails are smuggled into this country in open baskets for sale in a W. London market to West Africans living here. A few obviously drop by the wayside, but it is impossible for the species to overwinter here outside, so no danger is involved of the beasts becoming a pest.

B. VERDCOURT

#### ANNOUNCEMENTS

YORKSHIRE BRANCH, CONCHOLOGICAL SOCIETY OF G.B. & I.

Meetings for 1966

Indoors - Leeds City Museum - at 2.30 p.m.

March 19th.	Mr. A.	Norris - A	discussion		
November 5th.	Annual	General Mee	eting - Presidential .	Address by Mr.J.Armit	age

## Field Meetings

April 16th.	Stamford Bridge - 11 a.m. for aquatic habitats
May 21st.	Skipton main car park at 10 a.m. for Dent at 11.30 a.m.
September 3rd.	Blubberhouses - 11 a.m. for aquatic and limestone habitats
October 1st.	Thorne - 11 a.m. Leader Mr. Norris - for aquatic habitats
Y.N.U. Meetings	
28-29 May -	Thorntondale VC62
12 June -	Goole VC63
25 June -	Bolton-by-Bowland VC64
9 July -	Thornton Rust VC65
23-24 July -	Patrington VC61

THE ROYAL MICROSCOPICAL SOCIETY - Royal Charter Centenary Year

The Role of the Microscope in Scientific Investigation - International Conference - London - 18th.-22nd. July 1966, inclusive.

Further information available from the General Secretary of the Society, Tavistock House South, Tavistock Square, London, W.C.1.

### PUBLICATIONS RECEIVED

POIRIERIA Vol. 2, Part 6 (Sept. 1965) (Conchology Section, Auckland Institute and Museum, New Zealand)

The issue contains, as always, items of very general interest and others of a specialist character dealing with local beaches, sometimes in a way inclined to arouse the envy of marine shell collectors in Great Britain.

Contents include an article on the collection of land shells in Rarotonga, Cook Group, by L. Price. The collection was commissioned by the Chicago Natural History Museum and one wishes that more British provincial (or even national) museums were in a position to effect collecting of the kind. Other articles of general interest include one on the snail-killing flies (Sciomyzidae) by L. W. Stratton and one on Urogonimus mageostomus, a parasite which infests the tentacles of Succinea, by J. E. Rosenbaum.

Circular No. 69, The Conchological Society of South Africa.

Besides the usual Meeting Notes and short reports from the various widely scattered sections of the Society, there is a most useful article on certain of the species of South African Cowrie from W. O. Cernohorsky's 'Catalogue of Living Cypraeidae', extracted by D. H. Kennelly; an article on the rare <u>Conus</u> <u>clytospira</u>, new discoveries, by G. de Gersigny; Notes on Some Rare Species of Shells (mostly Cones and Cowries), and a marine list for Nthlonyana, Transkei, by D. H. Kennelly.

The Circular also includes a review of the recent 'Preliminary List of South African Marine Shells recorded from the Natal and Zululand Coast' by B. L. Cock of which a copy is to hand by courtesy of Mr. P. Elston. This is one of a series of most useful things of the kind which have been coming from the South African Society in recent years. Nothing encourages collecting and observing as well as an annotated check-list, and the fact that they are usually incomplete when first issued is no detraction; in fact it can well act as a stimulus. Few collectors do not feel a little pride at finding something which is not 'in the Book'! Accordingly, Dr. A. C. van Bruggen, in the foreword, hopes that it will rapidly become out of date!

T.E.C.

"A List of Marine Mollusca taken alive on the Wild Coast". By D.H.Kennelly, Conchologist, East London Museum, September 1965.

The List is obtainable from the Director, East London Museum, price 20 cents (South African) per copy. A copy is with the Compiler.

#### LISTS RECEIVED

Hano, New York Priced lists of tropical marine shells and books available.

Richard E. Petit, South Carolina U.S.A. Priced lists of Cones, Cowries and Harps. Books available.

#### ADVERTISEMENTS

WANTED: Helicella material from anywhere outside the British Isles; preferably alive, failing that, preserved in alcohol. I can pay a few pence each plus postage, or may be able to exchange some specimens. Please write discussing details before sending anything. M. R. Block, Basingstoke, Hampshire.

WANTED: Copies of the following issues of The National Geographic Magazine -Please contact Miss J. Sawyer, London, N.W.2. (GLA 3045). August 1935, August 1936, June 1940, July 1949, March 1956, January 1959, October 1959.

FOR SALE: Cypraea pulchra. Perfect condition from Arabian Sea, 1965. Full locality data. £4. Read, Coulsdon, Surrey.

Mr. Melville S. Lewis, Glengarry, Carmarthen, wishes to buy a copy of Vol. 12, No. 4 of the Journal. Also desires information on any articles, etc. concerning the hibernation of Helix aspersa.

Indian Ocean Cypraeas, and cones, and a quantity of Cardium costatum (Senegal) are on sale at Eaton's Shell Shop, Manette Street, London, W.1.

CORRESPONDENTS WANTED: Carlos F. Reichard, Constant P.R. 00603, U.S.A. wishes to obtain European shells in exchange for those of other countries. As he is a paraplegic he cannot collect himself, but has a wide range of correspondents in various countries and hence many specimens available for exchange.

NOTE: Last July my husband and I went a little out of our way to visit the Shell Museum of Miss Saunders, at Little Littlehampton, Sussex, which is, in fact mentioned in the very first Newsletter. After a little difficulty we found it, only to discover that Miss Saunders had died the year before, the house had been inherited by a nephew who had removed the shells and was letting it to holidaymakers. This information may save someone an unnecessary journey.

MRS. H. NASH

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