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SOME OBSERVATIONS ON THE OCCURRENCE OF GALEODEA RUGOSA (L.) OFF THE IRISH COAST

Live specimens of Galeodea rugosa (L.) have been recorded in the past, between 1886 and 1914 from deep water off the south west coast of Ireland. An interpretation of Massy's (1930) listed records indicates that the main concentration of live specimens occurs within the sea area bounded by $50^{\circ}20'N$ - $52^{\circ}7'N$ and $10^{\circ}57'W$ - $11^{\circ}59'W$ at depths ranging from 129-515 fathoms (236-942m). These grounds are situated to the west of the limits of Sea Areas 37 (Fastnet) and 40 (Labadie). Only one or two live specimens were taken on each productive haul, though these were sometimes accompanied by empty shells.

Farther to the north single empty shells were taken near the Porcupine Bank, and more recently one shell was reported from that area (O'Riordan, 1984). A living mollusc was taken at Station 63 of the Royal Dublin Society's expedition of 1890 at $54^{\circ}11'N$ $11^{\circ}24'W$, depth 220 fathoms (402m). This is situated west of Sea Area 35 (Mayo).

O'Riordan (1967) cited Holt's (Report of Council, 105) records of Stations 202 and 203 which lie farther north again at $54^{\circ}34'N$ $10^{\circ}56'$ - $10^{\circ}47'W$. This is obviously an error as the trawl was carried away at Station 202 and long lines were used at Station 203. From the available information, therefore, it is concluded that the Galeodea grounds occur west of Sea Areas 37 and 40 off the southwest coast.

Within the 100 fathom (183m) line Seaward (1982) indicates a post-1950 live record (or records) for Fastnet. The only live record I am aware of is that of Marshall (1911) who refers to several living specimens obtained by trawling off the southwest of Ireland in 50 to 60 fathoms (91-110m). More recently O'Riordan (1967, 1968, 1971) recorded the discovery of numbers of empty shells in an area lying to seaward of the mouth of Dingle Bay, extending from north of Inishtooskert, southwards to the Skelligs, at depths ranging from 45-55 fathoms (82-101m). No live specimens were recorded.

Having recently discussed the absence of live material with Mr. Kevin Flannery, of Dingle, he informed me that he has seen Spanish fishermen, who operate in deeper water off the Irish southwest coast, cooking and eating the contents of these molluscs while alongside Reenard Pier, Valencia.

It is not beyond the bounds of possibility, therefore, that the Spanish fishermen may cook and eat them en route to Valencia from deep water, and discard the shells overboard. Some of these could be occasionally picked up by the Irish trawlers fishing the area immediately west of Dingle Bay.

This is a very interesting comment, and I would welcome any further information concerning the distribution of this species off the Irish coast, either in shallow or deep water.

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C. E. O'Riordan, National Museum of Ireland, Dublin 2

MOLLUSCA OF LAKE TANGANYIKA

(Transcript of a lecture given to the Conchological Society in 1983)

Ptolemy in the second century AD showed lakes in Africa and 'mountains of the Moon' as sources of the Nile, whether by guesswork or from sources which ultimately depended on eye-witness accounts is unknown. I suspect it was based on the latter. Expeditions to the south were probably more frequent than we know and the southernmost people they contacted probably had information from even further south and so on. Needless to say the local inhabitants and later Arab slavers were well aware of the existence of the great East African lakes but even as late as 1855 Europeans (who thought nothing had been discovered until they knew about it) were woefully ignorant of just what lay inside the interior of East Africa. At this date C.M.S. missionaries sent home to London the famous 'slug map' based on a sort of amalgam of Lakes Victoria, Tanganyika and Nyasa. Within a few years expeditions started from Europe to find the sources of the Nile. Expeditions to Africa continued for the rest of the century; and even at the beginning of the present century some geography was still a little hazy. This is no place to detail the characters of Burton and Speke who led the first expedition across Tanganyika. Two more different men can scarcely be imagined. Burton was an incredible man, a tremendous linguist who knew 30-40 languages; he translated the Arabian Nights and much other erotica and was already famed for entering Mecca in disguise where a single error in language or behaviour would have doomed him to death. He was a simply prolific author and inveterate traveller. Who else could be buried in a tomb shaped like an Arab tent in a Catholic cemetery as he is at Mortlake! Speke was a quite different man, although also a good linguist, and the two did not get on. They were daggers drawn until Speke's unfortunate accident just before both were due to speak on the source of the Nile. Actually Speke was correct - the lake he discovered after parting from Burton was indeed one of the sources despite the scorn poured on the idea by Burton. This was, however, some weeks after both had arrived near the shores of Lake Tanganyika on the 13th. Feb. 1858. Burton had with his companions struggled to the top of a hill and half-blinded with fever just managed to see what appeared to be a streak of light. It is worth quoting his original words. 'Presently we breasted a steep and stony hill sparsely clad with thorny trees; it was the death of my companion's riding-ass. Arrived with toil - for our fagged beasts

now refused to proceed - we halted a few minutes upon the summit. What is that streak of light which lies below I inquired of Seedy Bombay. 'I am of the opinion quoth Bombay that that is the water. I gazed in dismay; the remains of my blindness, the veil of trees and a broad ray of sunshine illuminated but one reach of the lake, had shrunk its fair proportions. Somewhat prematurely I began to lament my folly in having risked life and lost health for so poor a prize, to curse Arab exaggeration etc.' Going nearer of course they soon discovered how huge a lake they had arrived at. They had left the coast on the 2nd. July 1857 and worked their way across. In Kazeh, now Tabora, they quickly learnt what was common knowledge that there were three lakes, Nyasa, Ujiji and Ukerewe now Malawi, Tanganyika and Victoria. What was this lake they had reached? It lies in the Albertine or Western Rift between 3° and 9°S and is the longest freshwater lake in the world - over 700 km. It lies at 773 m. altitude and covers 32900 km². It has a maximum depth of 1470 m. which makes it (after Lake Baikal) the second deepest freshwater lake and is divided into three parts by transverse crests on the bottom, a fact we will return to later. The coast-line is varied with a littoral zone of rocky shores and sandy beaches similar in nature to the sea coast with many different sorts of ecological niches. The water is rich in magnesium, Cl⁻¹ is about 28 ppm and Na⁺ about 60 ppm which is moderate (Lake Rudolf has 770 and Lake Hannington 14,360).

Speke picked up a few shells on the shores of the lake - the only shells which they seem to have collected and amongst the first non-marine molluscs to have been collected in East Africa. They represented two gastropods and two bivalves now known as Lavigeria nassa, Spekia zonata, Pleiodon spekei and Grandidieria burtoni. These were the first known specimens of a most extraordinary freshwater fauna. The specimens found their way back to the British Museum where they were described by S. P. Woodward in the Proceedings of the Zoological Society for 1859. Curiously they are not mentioned even in the 1880 edition of his manual. He did, however, comment on the marine appearance of the specimens. Later many more new and even more odd-looking shells were collected by explorers and missionaries such as J. Thomson, E. C. Hore and others; these were all described by E. A. Smith. Later in the century material collected by French missionaries and explorers came into the hands of J. R. Bourguignat who described large numbers of superfluous species in many papers culminating in a complete illustrated work on the mollusc fauna of the lake. He estimated the number of species at several hundred. E. von Martens did not accept these and Pilsbry and Bequaert in their work on the Congo freshwater molluscs whittled the number down a good deal (to 155); Leloup reduced it to 69 going too far the other way. Dr. David Brown in his recent work on the African freshwater fauna agrees the number should be rather higher than Leloup's treatment admits. Some idea of Bourguignat's inflationary species concepts can be gained from the fact that out of one species of Spekia he made 9 and Lavigeria nassa has 45 Bourguignat synonyms; in the bivalves Pleiodon spekei has 25 Bourguignat synonyms and Grandidieria burtoni 29. In these extreme cases therefore 108 Bourguignat species actually represent 4 real species. Many of his genera stand, however; at least 6 in the marine-like group. Apart from the marine-like gastropods there are perfectly ordinary species of pulmonates e.g. Biomphalaria, Bulinus, Lymnaea, etc., and prosobranchs Lanistes, Bellamya, Cleopatra, Melania, etc. which show no exceptional features. None of the bivalves shows any exceptional features either.

The curious features of some of the snails began to attract the attention of biologists. Bourguignat had invented the excellent term thalassoid in 1885 indicating the resemblance to marine forms but J. E. S. Moore used the term 'halolimnic' indicating derivation from marine forms. It was Smith himself (following an opinion of Thomson) who first drew attention in 1881 to the possibility that these shells might be the relicts of an ancient sea and Gunther (1894) elaborated it. J. E. S. Moore, who wrote a most interesting book called 'The Tanganyika Problem', was enthusiastic in his development of this theory and set out to prove that Lake Tanganyika was part of an arm of the Atlantic Ocean dating back to the Jurassic.

He led the First and Second Tanganyika Expeditions and collected the first living material of the molluscs. He compared the anatomy of the thalassoid snails with marine species and was convinced they were directly related; he also found suggestive comparisons between Jurassic fossils and some of the thalassoid species as Tausch had also made. The whole idea of a relict sea was also supported by Böhm's discovery of a species of jelly-fish in the lake in 1883 and the presence of a polyzoan. Pelseneer, however, later showed that Moore had been deluded and the anatomy was perfectly in agreement with the thalassoids being modified Melaniidae although at first he referred them to several families. Freshwater jelly-fish have now been found in many other lakes and rivers and one by one all the items of evidence have been dismissed. It is still held that the sea has never transgressed the African continent save marginally at any time relevant to biologists. This was the major objection to Moore's ideas when he first mooted them and it still holds as the main evidence.

Why then are there so many strange molluscs of marine appearance in Lake Tanganyika with heavy marine-like shells? One reason is the age of the lake. Both Lake Malawi and Lake Tanganyika are rich in endemic animals, particularly fish, and most authorities agree that they must have been established well over a million years, in fact, in the case of the latter, I suspect many times this figure, probably, as Hubendick has stated, 5-10 million. It is well-known that Africa has been subject to quite drastic changes in climate and topography since the Miocene. Vegetational changes have of course been directly related to this and extremes of virtually only forest refuges, to transcontinental expanses of evergreen forest, occurred. During this time, however, the lake, due to its depth, never dried up completely and evolution continued unhindered. Most freshwater habitats, even large lakes, are temporary, at least on a geological scale, and the fauna has had to switch about and start again so to speak; only some of the easily dispersible species survive so some species unable to migrate easily die out. As previously mentioned there are ridges across the bottom. Capart found by echo-sounding that there were three basins separated by ridges but that these ridges were pierced by sunken river valleys. The water-level must have been 500 m. lower when these valleys were formed and there would have been three lakes joined by rivers or formerly perhaps quite isolated at times; this would of course allow of speciation by isolation. Hubendick also suggests that the even warm temperature of such a tropical lake would favour more generations per century than in a colder lake. The high salinity of about 4% with magnesium compounds predominating, which would have risen to 18% during periods when the water-level was much lower, may have had considerable influence on the form of the shells. Hubendick has pointed out that the polymorphism of marine gastropods which covers almost all types which could have evolved would have been mirrored in Lake Tanganyika where similar unrestrained evolution was almost bound to produce parallelism and convergence. By contrast freshwater evolution in general has given rise to a fauna of rather monotonous appearance, particularly where the pulmonates are concerned.

B. Verdcourt

WEYMOUTH AREA

There now follow three contributions on dredging and field work in the Weymouth area. Detailed lists of species records are available to anyone interested on request to Mrs. Jan Light, 88 Peperharow Road, Godalming, Surrey, GU7 2PN - foolscap stamped addressed envelope, please.

DREDGING IN WEYMOUTH BAY AND PORTLAND HARBOUR, DORSET (2)

On 17th. June 1984, another intrepid band of eight members of the Society took

part in a dredging trip in the Weymouth area. As usual, we met on Weymouth Quay at 9 a.m., but unlike the first trip in November 1983, the day was bright, calm and very warm. Using the same boat as on the previous occasion, the object of this expedition was to dredge in new areas in Weymouth Bay and Portland Harbour. In all, we examined six new sites using a standard iron frame dredge with a 2cm mesh. Each trawl went very smoothly after the experience gained on the previous trip. As much of the material as possible, given the cramped conditions, was sorted on board the boat. The remaining specimens were taken away for identification.

Station 1: Lulworth Banks, off White Nose, Weymouth Bay.

This was a six minute dredge in 70 feet of water on a bottom consisting of sand and coral on rocky ledges. This station, together with number six, was the richest in terms of number of live species collected. Notable species collected were: Emarginula fissura, Chlamys distorta, Corbula gibba, Rhomboidella prideauxi, Parvicardium ovale, and the nudibranchs Doto pinnatifida and Crimora papillata.

Station 2: Adamant Shoal, Weymouth Bay.

For the second station, we attempted a longer trawl of 17 minutes in 65-90 feet, west of Adamant Shoal. At first our efforts seemed to be rewarded with many species, but the haul actually consisted largely of shingle and shell fragments. Only two live species of note were collected: Philbertia linearis and Timoclea ovata.

Station 3: Adamant Shoal, Weymouth Bay.

Persevering with this area, we tried an 11 minute dredge in 90 feet about 1½ miles west of Adamant Shoal, but our haul was very similar to Station 2, with the only new live species being Leptochiton asellus and Lunatia alderi.

Station 4: The Shambles, Weymouth Bay.

After the previous two disappointing stations, the boat moved to the Shambles, for a quick 5 minute dredge at 45-70 feet. This was the most disappointing haul of all, with no live species except the ubiquitous Crepidula fornicata and many shell fragments.

Station 5: Sandsfoot Castle, Portland Harbour.

We decided to sample a different type of sea bottom, and moved to ½ mile off Sandsfoot Castle, within the harbour itself for a short two minute dredge at 30 feet. There were, surprisingly enough, few volunteers to sort this haul - it consisted of 3 or 4 inches of mud deposited in the stern of the boat! However, the new live species found within the mud made the search worthwhile: Odostomia unidentata, Philine aperta, Abra alba, Nucula nucleus, Cerithiopsis tubercularis, Turbonilla fenestra and Turbonilla elegantissima.

Station 6: Weymouth Beach, Weymouth Bay.

For our final trawl, we had a leisurely 19 minute haul in 15-25 feet off the main beach at Weymouth, which brought up weed and small stones. This was a rich harvest indeed, as might be expected by the presence of suitable algae. More gastropods were found here, such as Gibbula magus, Tricolia pullus and Turboella parva. Other delights included Elysia viridis, Acanthochitona communis, Chrysallida obtusa and Thyasira flexuosa.

By the end of our trip, it had become very hot indeed and we all basked lazily in the sun. It was with some reluctance, at least on the part of the author, that

the boat was turned back to the shore to bring us home.

In all, we collected 84 species, of which 36 were live, in comparison with the first trip of 65 species with 44 alive. Of the live species, only 15 were found on both visits giving a total of 65 live species recorded from the area. Whether you are a keen collector, or would just enjoy a day out in a boat, I can highly recommend a dredging trip for an exciting and lively day.

My thanks are due to all those who took part in the trip and helped me to compile this checklist; Judith Nelson, Celia Pain, David and Anita Pearman, Graham Saunders, Dennis Seaward and especially Jan Light who organised and led the meeting; to Shelagh Smith for assistance with identification of specimens and their taxonomic status; and not forgetting to thank Jim and Dave the fishermen for their patience and good-humoured tolerance!

Julia Nunn

NOTES ON A FIELD MEETING HELD IN THE WEYMOUTH AREA, 5th. TO 8th. FEBRUARY 1985

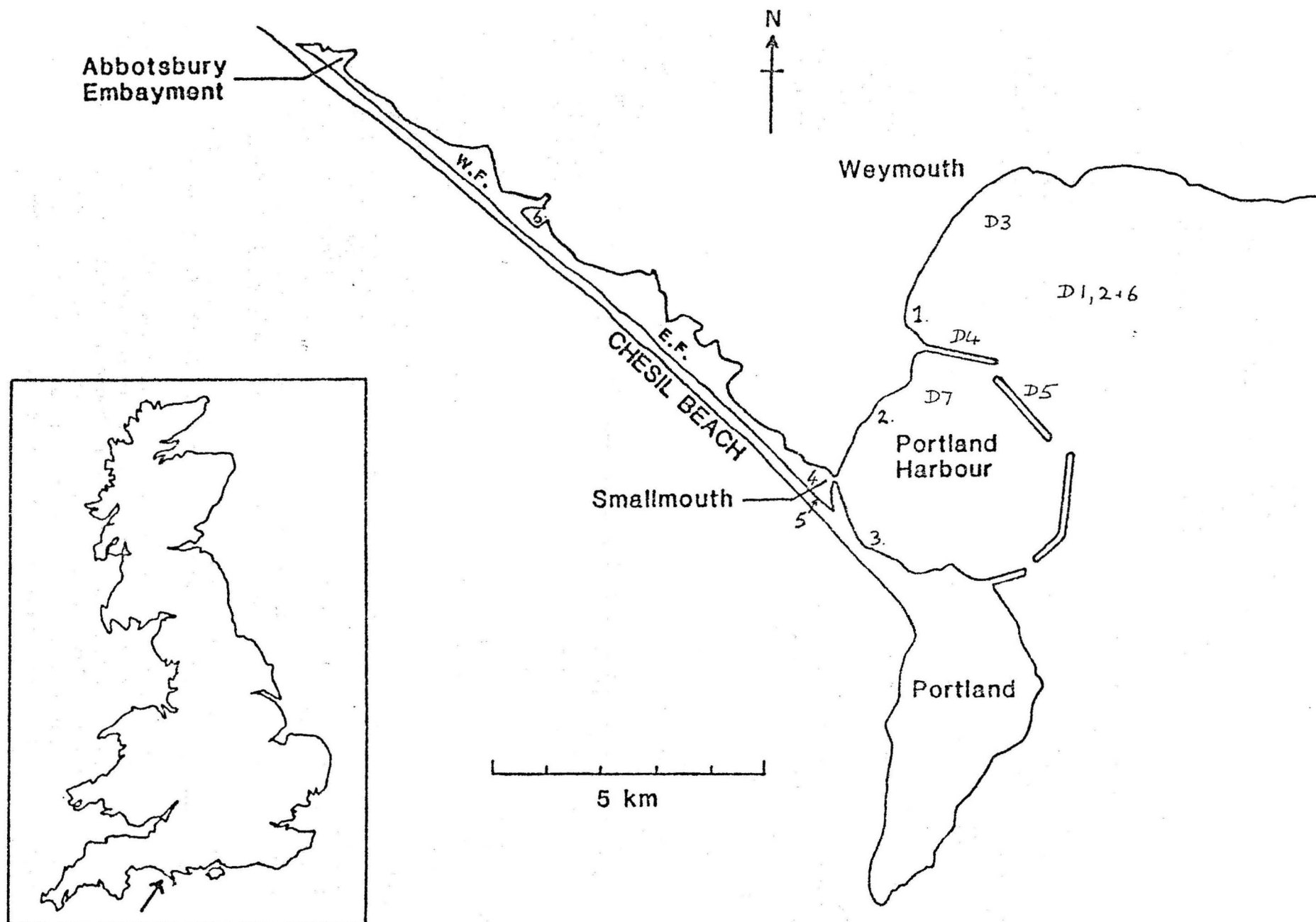
The objective of this meeting was to confirm and extend the list of current marine records for this census area. Dennis Seaward has undertaken considerable work here in recent years which has latterly been supplemented by Jan Light and myself.

Nine members participated, five of them for the whole period, and we were particularly pleased to meet two new members - Brian Fairfax and Chris Pierpoint who had travelled considerable distances to be with us.

According to Admiralty tide tables we should have had a series of exceptional spring lows. In the event, barometric pressure was low and the weather unsettled. The resulting tides were less than ideal but did grant us access to large areas of flats in Portland Harbour at the crucial time. The fauna of this area, while still remarkably varied, is not as rich as in earlier years. While the crabbers and fishermen blame overfishing for the decline in their fortunes, I understand that the advent of modern disinfectants and household detergents has played a more serious role than is generally realised. Anti-fouling paints poison veligers in enclosed waters. Some species, formerly prolific, have all but disappeared. Their occasional reappearance may be veligal re-introductions from less afflicted areas. In spite of all this I still continue to find different species and forms that I would not expect in this area. Portland Harbour has yielded just two specimens of Epitonidae - large heavy and dark-coloured - one with 9 ribs per whorl and the other with 11. They are presumably Clathrus clathrus but a form more typical of the Eastern Mediterranean. On the open flats of Weymouth Bay I found a tiny Lamellaria sp. Even with the preserved animal available I remain sceptical of my prospects of authenticating my tentative identification!

One hesitates to mention the unhappy subject of taxonomy but for functional purposes, specific taxa employed by the Biological Records Centre for their record cards have been used, notwithstanding that some may be technically unavailable or incorrectly applied in that context. However, out of respect for Phil Palmer the misuse of "Dentalium" has been suppressed and specific taxa not included in the aforementioned cards have been introduced only where I am unable to relate the material to any of those listed!

Weymouth Bay is sensitive to wind and weather. The top of the beach is only irrigated by winter storms and is fed by wind-driven sand at the harbour end. Storms throw up shingle from the Pier Bandstand area eastwards. Strandlines can be



productive in the right wind conditions but the driftline is more reliable. One will always find something but quantity and variety vary dramatically. Our excursion coincided with one of the poorer days with little live material but in spite of this a respectable representation was recorded. As nominal leader of the meeting I began to feel the usual underlying twinges of personal guilt and responsibility when unable to deliver large quantities of live and varied material to order.

Sandsfoot is only a stone's throw from my front door but has never seemed as interesting as the Portland side of the harbour. Other collectors have been luckier here. The lower intertidal rocks, particularly those near the old torpedo pier, harbour nudibranchs and chitons and there is a sand-bar with bivalve habitats but I have found very few species of gastropod in the immediate locality. On this occasion my efforts were rewarded with a living Antalis vulgaris, Pandora albida and interesting Venerupis pullastra colour forms. Both sallies to this beach were curtailed, once by a sleet shower and once by a swiftly rising tide which was six inches above my wellington boot-tops before I could regain the shore.

I had hoped that an intensive examination of the rocks and shallows near the Naval Air Station would locate the habitat of the large Clathrus which are occasionally to be found in that area but this was not to be. The fauna grew progressively richer as we worked back towards the new channel. Wind and tide finally cooperated to offer reasonable intertidal collecting and we were able to find a few examples of Tellina squalida, Gari fervensis and quantities of less glamorous material. Only one really unexpected item was found; Dennis sieved a living Mangelia brachystoma from sandy shallows between bars near the new channel.

The Fleet side of the Chesil Beach was next on the Agenda. The state of the tide was less than ideal but as the Truncatella habitat that we were to examine was at high-water mark this was acceptable. There was of course the slight disadvantage of having to walk an extra half mile over pebbles which worried some of us more than others. The Truncatella live among stones under vegetable debris at spring high-water mark. I understand this is probably one of the most northerly colonies. Here we also found Leucophytia. We noted quantities of large moth pupae in association with the rotting seaweed - I intended to identify these later but in an unguarded moment they metamorphosed and made good their escape! Further down the beach (about mid-intertidal) and about 80 yards beyond the derelict iron barge, we examined an expanse of overtly barren pebbles about one inch in diameter. Most unpromising, but appearances can be deceptive! Scraping to one side the upper few inches of pebbles we exposed fast running water, draining out of the Chesil Bank. Here in the fast water we found communities of Cingula cingulus and Leucophytia bidentata and a small species of white bivalve which we have yet to identify. Fresh dead shells found in this environment included Musculus discors, Truncatella subcylindrica and Rissoa lilacina. Older dead shells of Rissoa membranacea and Cerastoderma lamarcki were assumed to have originated from further up the Fleet. The aforementioned white bivalves were attached to the stones by clear mucus threads about 5mm long. Their average size was probably less than 1mm. They are assumed to be an Erycinacid species with affinities to Mysella or Lasaea.

Although by midday the tide was well down, we failed to find the population of Loripes lucinalis which had formerly been abundant in the Fleet sand flats.

Moonfleet fulfilled our expectations but I must admit that although we walked several miles along the bank, we were unable to improve upon the range of species which could be had from the hotel jetty where there was a substantial drift of fresh dead material. Living molluscs could be scooped with a sieve on a stick as required. Phil Palmer showed the more athletic of us an exposed strata of fossil brachiopods. Samples were taken by those of us who wished to increase the scope of our identification problems.

My plan to sample the microfauna of the dense weed veneer on flat sublittoral rock faces below Portland Bill was frustrated by rough seas. Being the sole support of two ungrateful daughters and a villainous (and equally ungrateful) ginger tomcat, I decided it just was not worth the risk! We checked the bottom of the nearby lobster boats just in case something unusual had fallen off the pots. Sometimes one finds live Calliostoma, Trivia, Tricolia, Nucella and Nassarius so I always make a point of visiting those boats if I am in the area!

The weekend left me with the distinct feeling that weather, wind and tide had been unkind to us but if anyone fancies trying their luck in more congenial weather 'phone me on Weymouth 787751. There are usually at least two or three spare beds available to wandering conchologists - and the children are away for a month in summer!

Graham D. Saunders

DREDGING FROM WEYMOUTH, JUNE 16th. 1985

On 16th. June 1985, I was among a party of eight members of the Society taking part in the third of a series of dredging expeditions from Weymouth.

It was my first such expedition, and the bleariness resulting from an early start was quickly dissolving in excitement as we left Weymouth's pretty harbour in brilliant sunshine. The sea was very calm - just a slight swell - and some of us passed the time by picking through some of the sweepings in the bottom of the boat. This deposit consisted mainly of calcified algae, and contained an odd mixture of shells: Corbula, Rissoids, Turrids and some bits of Bittium. As we curved around Portland Bill, some of us took the opportunity to take photographs of Preacher's Rock, and the dark caves under the cliffs, while others ate sandwiches or watched the seabirds.

At last, we arrived over the rocky underwater shelf we were to dredge. The dredge itself consisted of a steel frame, with some rather worn steel teeth along its lower edge to knock scallops up off the bottom and into the net. The net was made of a sort of chain mail, with links about three inches in diameter. This was, of course, rather too coarse a mesh for us, so we lined the net with some finer plastic netting. This was loaded over the side, and our boatman set to work paying out the cable from a winch. When the dredge finally hit bottom, he gave us an echo-sounding; one hundred and seven feet, six inches. 'Was that on top of or between the bumps?' quipped someone. Indeed, one could feel the rope juddering as it scraped over the rocky bottom, so deep below us. The whole process, from the dredge going over the side, to its being hauled up again and unloaded, took about half an hour. Graham Saunders and Geoff Cox helped manoeuvre it over the side.

There were Pecten maximus of various sizes, starfish, sea-urchins, and squirming brittle-stars. There was also one - eminently - Edible Crab, and lots of pieces of sandstone, riddled by boring molluscs until they looked like pieces of brownish red Gruyere cheese. We all grabbed armfuls of this material, and settled down to examining it whilst the dredge went over the side again.

On one of my Pecten maximus, I found three specimens of the parasitic snail Odostomia, nestling along the edge of the upper valve. The biggest of these was about 5mm. long, but what these little snails lack in size, they make up for in beauty. In life, the part of the animal inside the spire shows through the translucent white shell as a delicate pink colour, whilst the head and foot, also translucent, are pale yellow.

Our party broke open some of the rocks. In this and the next three or so dredgings, this brought to light Hiatella arctica, Nassarius incrassatus, Corbula gibba, Gibbula tumida, Pholadidea loscombiana, Thracia distorta, Gastrochaena dubia and several others, to be identified later at more leisure!

On two successive occasions, the dredge came up with exquisite clear yellow specimens of Chlamys opercularis, as well as the more usual pink, white or brown.

On dredge No. 5, Dennis Seaward found a nudibranch, ?Doto fragilis, on a hydroid. In a bucket of water, it extended and showed its characteristic pine-cone - like cirrata. This led to a conversation with the boatman about where in the area more weed was to be found: it was by now quite late in the day, and already tentative plans were being made for the next trip!

We decided to make our last two dredges in a sandy area, and set off - at a speed that almost had us off our feet - back towards Weymouth. Our 6th. attempt - at 95 ft. - brought up a spider crab and a variety of dead and broken bivalves, including Nuculas, Astartes, and Chlamys varia.

The 7th. and final dredge was directly opposite Weymouth's tourist beach and promenade, with its splendid Victorian hotels. We let down a bucket in the hope of bringing up some sand. We did not get much of the latter commodity, but we did bring up an intriguing length of rope which yielded Crepidula fornicata, and some weed that was kept for closer examination.

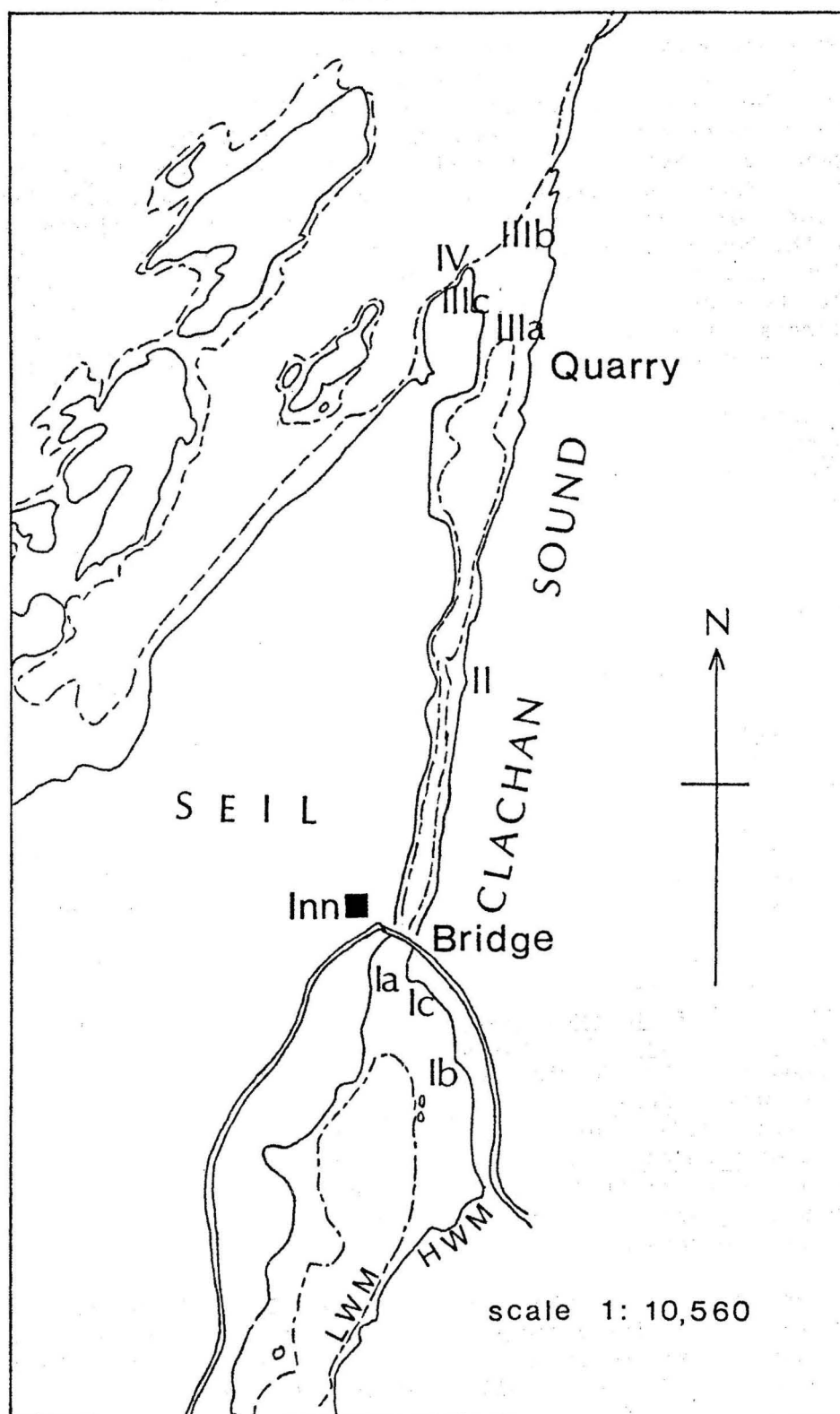
All in all it was an exciting and very full day, an experience I would certainly like to repeat, and which I would recommend to any physically active Conchologist.

C. J. Chibnall

MOLLUSCA FOUND IN CLACHAN SOUND

Situated on the west coast of Scotland about 20km south of Oban, Clachan Sound is a narrow tidal channel connecting Seil Sound with the Firth of Lorne. At its southern end it is crossed by the famous "Bridge over the Atlantic". The area was visited on 6 April 1985 by the authors (SMS and JDN) and found to be very rich in Mollusca, there being 84 species found that day, many of which were abundant. Such was the disappointment, in view of the fact that a number of common species were not found, that SMS made a second trip a month later (4 May) with Morag Mackinnon (MCM). Although there are still some strange gaps (why no Trivia spp or nassariids?) the combined total of mollusc species, when taken with some found a few years ago by JDN or David McKay, is now comfortably over 100. This is very unusual for such a small stretch of shore - merely 1km long and for the most part only 50m wide, with relatively few different habitats.

Four main sites were investigated (see map). First the shores just to the south of the bridge: JDN searched the west side (Ia) just below the Inn's car park, a fairly short steep shore. SMS investigated the east side (Ib), which proved to be the richer, although to get to the water's edge one had to cross soft slippery mud covered with Ascophyllum nodosum ecad mackaii. An area extending into the middle of the channel (Ic) was seen in May. A variety of habitats were present: the middle of the channel, a low sill which almost dries, is composed of boulders and shell gravel with Laminaria spp. The current here is fairly strong: both sides of the channel consist of furoid-covered boulders resting on gravel, muddy in parts: on the east side the gravel/boulder area becomes less bouldery and



more muddy up the shore and in a backwater. This whole area is the least rich part of Clachan Sound, and apparently has become less so in recent years - there have been reports that sewage has been considered responsible, but it was not obvious when we were there, and the channel is well flushed by the tide. The most obvious mollusc present was the white form of Calliostoma zizyphinum (L., 1758): -

a number of the commoner nudibranchs were also in evidence, but this area is definitely of greater interest for species other than Mollusca.

The next place worked was at the north end of Clachan Sound, reached by a moderately easy, if boggy, walk of about 1km. There is a disused slate quarry on the east side. Here the Sound widens into a pool 150m across at most and 3m deep at low tide. North of this, there is a sill forming the highest part of the channel composed of gravelly shallows with boulders draped with Laminaria spp (IIIa). Beyond, there is a wider sweep of fucoid-covered boulders (IIIb) dropping about 1.5m over 100m down to the open sea. Many species of Mollusca were found under and on the boulders, on and in the gravel and in samples of algae taken for laboratory investigation. Calliostoma zizyphinum were not only white but also coloured. To the west of this boulder beach there are steep rocks with rock pools, the largest of which (IIIc) contained a lush stand of Codium abundant with Elysia viridis (Montagu, 1804). MCM found single specimens of Placida dendritica (Alder & Hancock, 1843) and Cuthona foliata (Forbes & Goodsir, 1843). The rocks end in low cliffs (IV) with smooth boulders at the base. Here the chief alga is Alaria esculenta, suggesting considerable wave action despite the fact that the area is sheltered by numerous islands. The cliffs were of little interest and swiftly investigated by SMS, but provided the common cliff and crevice species which would otherwise not have been noted.

We had finished at the north end before the excellent tide turned and on the way back were tempted by the central part of the sound which was now accessible (II). This region is narrow, no more than 50m wide, very shallow with a coarse gravel floor which was dry in parts but mostly just wadeable. There is a fairly strong current at some states of the tide. Anchored in the gravel were clumps of Laminaria saccharina, Fucus serratus and smaller algae similar to those found further north. The most interesting species here were bivalves, on the surface of the gravel and, as we found by digging with our hands and feet, burrowed into it. The visit in May paid particular attention to this site in order to try and find alive those bivalves previously only found as shells. There was some success, aided by the carrying home of a bucket of shell gravel for careful sifting. The slatey sides of the narrows contained Leucophytia bidentata (Montagu, 1808).

In addition to the normal careful search of available habitats at each site, we collected samples of the algae present, Fucus serratus and the more abundant small algae such as Ulva lactuca, Cladophora sp, Cystoclonium purpureum, Corallina officinalis and Trailliella ("red cottonwool"). Amongst their roots which catch particles of sand and other debris, were (in addition to commoner Mollusca) more unusual species such as Boreotrophon truncatus (Ström, 1768) and Crenella decussata (Montagu, 1803). The green alga Cladophora spp, and larger red algae such as Cystoclonium purpureum and Ceramium rubrum yielded, as expected, numerous Rissoella spp and other small delights. The ubiquitous pyramidellids which eat, amongst other things, serpulid worms and detritus were more varied than is usually the case, although perhaps not as numerous.

Clachan Sound has been visited before, by JDN, David McKay and by a survey team from the Scottish Marine Biological Association. In each case few Mollusca were recorded, due in part to the state of the tide and in part to looking in the wrong places or in insufficient detail. The SMBA visited the area by the bridge only, recording only a handful of Mollusca and about 100 species in all, whereas throughout the whole of Clachan Sound we found more than twice that number - excluding the many which they identified and we cannot. Currently, there is monitoring research into fouling organisms. There are reports that the area is visited far too frequently by parties of marine biology students who do too much damage. The area is considered to be of prime importance but there is no protection planned.

Notes on selected species

Although most species have not been recorded from Clachan Sound before, intensive investigation over the last 10 years in the surrounding seas has revealed that the majority are reasonably common.

Polyplacophora were abundant, a good place for Ischnochiton albus Diodora graeca, three, all under one boulder.

Margarites helycinus, in April very large, gravid with egg masses, in May, most of the large adults had disappeared (died?) and minute juveniles were abundant.

Calliostoma zizyphinum, very common, especially in the white form; a yellow one was found.

Dikoleps serpuloides, not found nearby, but very difficult to identify.

Lacuna vincta, not found in April, babies abundant in May.

Turboella interrupta and T. parva, not as abundant as is usual.

Setia semistriata, unusually abundant.

Ammonicera rota, abundant in the region this year, seems on the increase.

Rissoella spp, all abundant, in their hundreds, a typical habitat for them.

Boreotrophon truncatus, abundant in gravel caught in the roots of algae such as Corallina. Not normally found in such shallow water.

Placida dendritica, an elusive beast but definitely about this year.

Palio dubia, one of the rarely-found nudibranchs, not previously recorded from hereabouts.

Crenella decussata, rarely found in the infralittoral, but the habitat, shell gravel, is normal.

Tridonta elliptica, found on the muddy gravel, not usually intertidal.

NOTE - Detailed species list available to anyone interested on request to the Newsletter Editor - foolscap stamped addressed envelope, please.

by Shelagh Smith and Julia Nunn

REVIEW

A Report on the Land and Freshwater Mollusca of Northamptonshire by G. Osborn, J. Pirie and M. Wallis, illustrated by Barbara Blood (1985); Published by the Northamptonshire Natural History Society, printed by Mankim (Colchester) Ltd. pp. vi + 67. ISBN 0 9510461 0 1. £2.50.

Following the successful development of a national mapping scheme for land and freshwater Mollusca using the ten-kilometre squares of the National Grid, a number of projects have started to use a finer grid for mapping smaller regions. Grid squares of 2 km x 2 km ('tetrads') have been found most suitable for this purpose. 'An Atlas of the non-marine Mollusca of the Isle of Wight' published in 1980 was the first of these local surveys to demonstrate the advantages of mapping by tetrads. Similar studies are well advanced in Bedfordshire, Suffolk and elsewhere.

The Report reviewed here is mainly devoted to tetrad maps of the land and freshwater Mollusca of Northamptonshire (the administrative county, which has limits differing in detail from those of V.C. 32). It is clear from the authors' foreword that this is only a provisional report and that much more work remains to be done. There are nonetheless serious errors and deficiencies that make the present report disappointing.

Some detailed criticisms are given here in a constructive spirit so that the eventual definitive report may be improved, and in order to prevent the mistakes

being quoted more widely in the literature.

The list of species recognised from Northamptonshire contains serious errors. All of the records shown for the following species are likely to be incorrect or based on fossil occurrences: Lymnaea glabra, Oxyloma sarsi, Truncatellina cylindrica, Vertigo moulinsiana, Ena montana, Limax cinereoniger, Deroceras agreste, Monacha cartusiana, Zenobiella subrufescens. On the other hand, valid Northamptonshire records of at least six species have been overlooked (Segmentina nitida, Testacella haliotide, T. scutulum, Monacha granulata, Pisidium hibernicum, P. tenuilineatum), as well as records of such recent segregates as Arion distinctus and Euconulus alderi.

The extent of field mapping has clearly been inadequate to show much more than the outlines of distribution of many species. About half of the tetrads in the county are shown as having totals of fewer than ten records, when totals of 20-30 might be expected. Indeed, the overall total number of records involved is probably less than half of what might result from really thorough surveys. Coverage is most conspicuously incomplete for certain small species such as Vertigo pygmaea (only two recent records) and Punctum pygmaeum, and for Pisidium spp. (with only three recent records of P. casertanum, five for P. personatum and none for P. obtusale).

There are numerous mistakes in the spelling of names of molluscs and the citation of their authors. The bibliography does not list older studies of Mollusca in Northamptonshire. Some of the illustrations of shells are rather poorly drawn and it is doubtful if beginners would find them helpful in recognising the more difficult species. Some of the printed pages appear rather untidy because the maps and associated lettering were not designed to withstand the scale of reduction used.

The reviewer hopes that continued fieldwork in Northamptonshire will lead eventually to production of a more accurate and more thorough study.

D. T. Holyoak

PUBLICATIONS RECEIVED

Porcupine Newsletter, Vol. 3, No. 3, March 1985.

Principal contents include:

The Relationship between prey species and Life Histories of Nudibranchs by A. Grant (Cullercoats).

Some Aspects of passive Suspension Feeding by C. F. Warner (Reading).

Bioenergetics in Limpet-grazed Communities by R. Hartnoll (Port Erin).

Predation by Nucella lapillus on Barnacles by M. T. Burrows (Manchester).

Around the Marine Laboratories, No. 12: the Institute of Oceanographic Sciences, Wormley.

There are, of course, articles on other (non-molluscan) forms of marine life, meeting reports, reviews, correspondence and notices.

Poirieria (Auckland Museum Conchology Section, New Zealand) Vol. 14, No. 1, April 1985.

Contents include:

Preliminary Report on the Arrival of a new Mussel at Auckland by R. Willan. There has been a recent explosive colonisation by foreign bivalves of the N.Z. coastline and the latest is an Asian mussel Musculista stehouysii (Benson).

Variation in Shell Shape in Cominella adspersa (Brug.) by S. O'Shea. Much of this

seems due to boring worms which mainly attack the shoulder of the whorls, but the situation appears to have some irrational factors.
Teach Yourself Conchology - or, Taking the Hell out of Shell, by K. Hepers. A sad catalogue of the frustrations of shell-collecting which will arouse sympathetic response from us all.
There are also many items of local and general interest.

T. E. Crowley, 19.7.85

FURTHER NOTES ON MOLLUSCS IN THE DIET OF THE SONG THRUSH

Recently Wardhaugh (1984) stated that there were no previous records of the land snail Monacha cantiana found in 'anvils' of the Song Thrush Turdus philomelos. This statement is in need of some correction.

When dealing with an item in which two branches of zoology are involved i.e. in this particular case ornithology and malacology, one may have a good knowledge of the ornithological literature while the malacological literature concerning the same subject seems to be overlooked. This is in my opinion also in this case.

Records of Monacha cantiana encountered near 'thrush-stones' in Great Britain are at least dating back to the end of the 19th. Century. One of the first who recorded this land snail from 'anvils' was Bullen (1899) who found it near Reigate, Surrey. Two years later he reported the find of two broken M. cantiana and two damaged Cepaea nemoralis in an 'anvil' between Canterbury and Whitstable, Kent. Another 'anvil' in the same area yielded one M. cantiana and two C. nemoralis. This led Bullen (1901) to the conclusion that the presence of the two different species near each other in the same 'anvil' shows that the birds are not driven to eat M. cantiana through absence of C. nemoralis.

More impressive were the observations by Oldham (1912), who found near a thrush-stone at Tring, Herts., the broken fragments of 50-60 shells of M. cantiana and only 3 shells of C. nemoralis.

Informative is also the following sentence written by Taylor (1917) in his monograph dealing with M. cantiana: "This species was formerly believed to be almost immune from destruction by birds, but its remains have been found, sometimes numerous around "thrush stones" in Kent, Sussex, Hertfordshire, Suffolk, Lincolnshire, and Yorkshire by several reliable observers".

Not all records are dating back some 60 or more years. Cameron (1969) mentioned for example also the presence of few M. cantiana near the anvils of the Song Thrush. From these data and those presented by Wardhaugh (1984) it is clear that the Song Thrush is a regular predator of Monacha cantiana.

Henk K. Mienis, Zoological Museum, Hebrew University, 91904 Jerusalem

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- Bullen, R.A., 1899. Notes on mollusca. Sci. Gossip, N.S., 5: 366.
Bullen, R.A., 1901. Notes on Helicella cantiana as food for the Turdidae. J. Conch., 10 (1): 27.
Cameron, R.A.D., 1969. Predation by Song Thrushes Turdus ericetorum (Turton) on the snails Cepaea hortensis (Mull.) and Arianta arbustorum (L.) near Rickmansworth. J. Anim. Ecol., 38: 547-553.
Oldham, C., 1912. Helix cantiana Mont. preyed upon by the Song Thrush. J. Conch., 13(11): 323.

- Taylor, J.W., 1917. Monograph of the land and freshwater mollusca of the British Isles, 23: 77-111. Leeds.
- Wardhaugh, A.A., 1984. Some observations on the molluscan diet of the Song Thrush. British Birds, 77 (8): 365-366.

EMARGINULA ROSEA AND LEPIDOPLEURUS ASELLUS LIVING INTERTIDALLY IN DORSET,

WITH A NOTE ON TRUNCATELLA SUBCYLINDRICA

The great shingle bank in Dorset known as Chesil Beach and the tidal lagoon behind it known as the Fleet are of very considerable scientific interest, with a long history of study, culminating in a considerable body of work recently published on diverse topics, and to some extent stimulated by the formation of the Fleet Study Group in 1975.

My own interest has been particularly in relation to the marine molluscs (Seaward, 1978, 1979, 1983), one aspect being the significance to molluscs of the shingle bank itself. Shingle beaches normally provide an extremely hostile environment due to the mobility and grinding of the pebbles in any wave exposure, which is usually the reason for their presence, and this certainly applies at Chesil Beach on the side facing the Channel, where the shore is barren of any macrophytes.

However, on the landward side, where the Chesil Beach is backed by the Fleet for some 13km., conditions are very different, for here the shingle descends into shallow, sheltered water, with little wave action. The pebbles of about 2 to 4cm. can support small algal growths, and small animals can live on and between the stones. At high water mark, there is a strand line of rotting vegetation, mainly composed of the Zostera and Ruppia species which are abundant in much of the upper Fleet, so that to some depth, the pebbles are surrounded by rich organic matter.

It is here, buried 10cm. and more, that the pulmonates Leucophytia bidentata (Montagu) and Phytia myosotis (Draparnaud) are found, together with the extremely local prosobranch Truncatella subcylindrica (L.) in one of its only two British localities.

"Burrowing" in these species is well (?) known, but I have been surprised to find other species also within the shingle, elsewhere in the Fleet, in circumstances which I believe have not previously been reported.

These circumstances apply towards the eastern, Weymouth, end of Chesil Beach, and further down the shore, where in places, "springs" of water issue from the shingle bank and run over and down the pebbles as the tide ebbs. It was near one of these "springs" that I found, in 1977, Emarginula rosea Bell living at or just below extreme low water spring tides, among the pebbles, which I considered unusual for what is normally a "sublittoral" animal, trawled on rough stony or shelly grounds 12-28m deep..." (Fretter and Graham, 1976, p.10).

Recently, I have started to look more closely at these "springs", and I believe that they provide what is probably a highly unusual, if not unique, habitat and community, which I hope to investigate further. At several, I have found Emarginula rosea occurring in some numbers, in a middle- to upper-shore position, always a few centimetres deep among the stones. It was accompanied at one site by another "sublittoral" species Lepidopleurus (Leptochiton) asellus (Gmelin). Other associates are Cingula cingillus (Montagu), Calyptraea chinensis (L.), Turbonilla elegantissima (Montagu) and Lucinoma borealis (L.), none of which are "obligate" sublittoral molluscs.

A tentative explanation may be that the shingle bank stores marine water at high tide, or that there may be some percolation through the bank (here 200m wide) from the sea, which water is released as the tide in the Fleet ebbs, so continuously bathing the stones - and the animals at depth - in sea water, and providing a "sublittoral" environment.

This very preliminary note is a request for information as to whether similar situations arise elsewhere, where normally sublittoral species (particularly those mentioned), occur intertidally, and under what circumstances. I should be most interested to have comments from readers. In the meantime, I am continuing to study these sites and their inhabitants - non-molluscan, as well as molluscan.

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- " (1983) The Distribution of Marine Molluscs in the Fleet, Dorset. Report to the Nature Conservancy Council, October 1983.

D. R. Seaward, 30 June 1985

GENERAL NOTES

AN ETHNOCONCHOLOGICAL NOTE

The following note (in an unknown hand, not that of either J. W. Jackson or R. Standen) was found with two specimens of Ovula costellata (Lamarck, 1810) among shells presented to Merseyside County Museums by Dr. Jackson's daughter Miss Alicia Jackson in 1983. [Punctuation unaltered NFMcM]

"Ovula tortilis Martyn = o costellata (Lamarck) New Caledonia. This species is very rare in New Caledonia. The natives get the hair of the great Flying Fox or Vampire Bat they (twist?) it up in the form of twine then plat it up in the form of a band about ½ inch wide then secure it to one of the shells and wear it below the right knee its thought a lot of and very rare to get them with the band on when a native gets short of cash he will sell it to a shopkeeper for a few francs and when he wants to get it back he will give 4 to 5 francs for it.

In 1873 I was nine months in various parts of New Caledonia collecting and did not see any and on the death of my brother in law Mr. R. C. Rossitter in 1903 and I was there 14 months 1903-4 I hunted round all the shops in Noumea and nothing was to be found like them. J B."

Cernohorsky (1971, p.106) remarks that the range of the species is "from East Africa to the Tongan Islands. Uncommon".

REFERENCE

Cernohorsky, W.O., 1971. Marine Shells of the Pacific. (revised edition)

Nora McMillan, Merseyside County Museums, Liverpool

NOTES FROM PLUMSTEAD MUSEUM

While working on a collection of molluscs in the Greenwich Borough Museum accumulated by A. S. Poore around the turn of the century, I came across (in a box which included a specimen of Helicodonta obvoluta from Winchester, Hampshire) the follow-

ing reference to Trochoidea elegans, included in the label to 2 specimens found near Dover:-

"Supposed to have been introduced by a passenger throwing a bunch of flowers gathered in Switzerland from a window of the Dover to London Express train".

I would also like to record a comment made on the label to 3 specimens of Bradybaena fruticum in the collection from Neiringer, Switzerland:

"Once found living in England now only found in the fossil condition"
This was written in 1893, by a conchologist living in Kent!

I would welcome comments and further information from members as regards these observations.

Looking through the school loans collection in the Greenwich Borough Museum, I came across a note (with specimens) stating that Lymnaea stagnalis attacked and devoured sticklebacks and minnows. This struck me as highly unlikely, and I decided to do some academic research into the matter. Stella Turk provided me with some references and I paid a visit to the BM(NH) library. The following is the result:

Following the story chronologically we start with The Zoologist (1861, p.7400) where K. (?) states under the heading "Fish Devoured by Snails":

"The freshwater aquarium is now so common an object of attention that probably few of the many interesting facts to be observed in the habits of its inmates remain unrecorded. I was not, however, fully aware until rather lately that the larger water snails (Limneus pereger at least) catch and devour the small fish when they are placed with them in confinement, but whether this is the case in their native pools and streams I am not able to say. I was for some time at a loss to discover what could occasion the death of several minnows which I found mutilated and partly eaten, when at length I perceived one apparently just caught with its tail in the grasp of a large Limneus. This, I think happened repeatedly, and served to acquit of the destruction a fine silver fish, which I had been ready to accuse in this matter. I never witnessed the actual capture, and am still puzzled to imagine how such agile little creatures, darting rapidly here and there amongst the aquatic foliage can fall a prey to the slow-paced mollusks which cling to the grass or the rock, or glide with scarcely perceptible motion, shell downwards on the surface of the water. ...The Paludina vivipara though here of a very large size seems perfectly harmless, and, as far as can be seen eats neither animal nor plant in a living state, subsisting on the decaying vegetation or perhaps on the Infusoria and other creatures invisible to the naked eye". K: Sudbury Jan 10 1861.

Jeffreys in British Conchology Vol. 1 (1862, p.108) corroborates the note in the Zoologist and introduces Lymnaea stagnalis:

"I have seen these pond-snails (Lymnaea stagnalis) attack and devour their own brothers and sisters under the same circumstances, when they had no other supply of food; and this was done by piercing the spine of the shell near its point, which was thinner and somewhat eroded by the action of the water."

Henry Ulliyett (Folkestone) in Science Gossip Vol. 22 (1886, p.214) under "Notes and Queries" again corroborates Zoologist, apparently from personal experience, and adds to the predatory powers of Lymnaea stagnalis:

"Limnaea stagnalis - This pond snail is undoubtedly omnivorous, and has no objection to anything of animal nature, dead or alive, that may come in its way. It used to attack successfully even the lively stickleback in my aquarium several of which suffered death and destruction from it. It eagerly devoured any dead fish it found."
- Henry Ulliyett, Folkestone

Then A. H. Cooke in the Cambridge Natural History Vol. 3 (1895, p.34) continues the story, quoting Karl Semper from Animal Life (p.59) (necessarily pre-1895 - I was unable to track this reference down!) and Dr. Jeffreys; whether the last sentence is noted from Cooke's personal experience is not clear:

"Even the common Limnaea stagnalis, which is usually regarded as strictly herbivorous will sometimes betake itself, apparently by preference, to a diet of flesh. Karl Semper frequently observed the Limnaeae in his aquarium suddenly attack healthy living specimens of the common large water newt (Triton taeniatatus [= Triturus cristatus?]) overcome them, and devour them, although there was plenty of their favourite vegetable food growing within easy reach ... Limnaea peregra has been detected capturing and partially devouring minnows in an aquarium when deprived of other food and Dr. Jeffreys has seen the same species attack its own relatives under similar circumstances, piercing the spire at its thinnest point near to the apex. Limnaea stagnalis, kept in an aquarium has succeeded in overpowering and partially devouring healthy specimens of the common stickleback."

A. E. Ellis in British Snails (1926) merely puts all the above together in a brief synthesis of the eating habits of L. stagnalis, as can be seen he makes use of Karl Semper's (newts) and Henry Ulliyett's (fish) observations:

"Limnaea stagnalis. It is fond of a flesh diet, and not only devours dead animal matter, but has been known to attack living animals, such as fish and newts."

The story appears to end with E. Step in 1945 (actually this is where my story begins, as the school loan information was taken from Step) who apparently accepts the now almost conventional "wisdom" although adding to L. peregra's diet with what I take to be a personal observation:

"It (L. stagnalis) is a general feeder, but with a distinct bias in favour of animal matter. It will even attack and kill newts and sticklebacks whose size and agility might be considered more than sufficient to save them from such a fate. It also destroys the larvae of water-beetles in the same way; but the mature Dytiscus retaliates by eating stagnalis. It must be confessed too that the Great Pond Snail is at least occasionally a cannibal, destroying young individuals of its own kind".
and

"Like L. stagnalis it (Limnaea peregra) declines to be restricted in its diet even practising cannibalism when overcrowded. It may be seen industriously assisting in the dissolution of a superfluous dog that has been consigned to the waters attached to a brick."

I would welcome further information on this subject; there certainly appears to be a paucity of original observations and having done this research I am still sceptical that either of these species would be able to attack any form of healthy living fish in the natural environment (I should mention that in the BM(NH) I came across F. Naggs who said that he had seen Limnaea stagnalis devouring moribund fish in his garden pond).

I extend my thanks to Mrs. Stella Turk for stimulating this research, to the librarians at the BM(NH) for much patience and to F. Naggs for his time spent digging out references for me.

Jared U. Tuck, Plumstead Museum
1st Floor, Plumstead Library, Plumstead High Street, London, SE18 1JL 01-855 3240

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, c/o British Museum (Natural History), Cromwell Road, London, SW7 5BD ITZN 59 3 July 1985

The following Opinions have been published by the International Commission on Zoological Nomenclature in the Bulletin of Zoological Nomenclature, volume 42, part 2 on 27 June 1985:

Opinion No.

- 1306 (p.146) Ledella bushae Warén, 1978 is the type species of Ledella Verrill & Bush, 1897 (Mollusca, Bivalvia).
1315 (p.165) Eolis alderi Cocks, 1852 is the type species of Aeolidiella Bergh, 1867 (Mollusca, Gastropoda).

4 October 1985 Volume 42, part 3, 30 September 1985:

Opinion No.

- 1331 (p.230) SPHAERIIDAE Jeffreys, 1862 (1820) (Mollusca, Bivalvia): placed on the Official List.
1350 (p.283) Conus antiquus Lamarck, 1810 (Mollusca, Gastropoda): neotype suppressed.

The Commission regrets that it cannot supply separates of Opinions.

P. K. Tubbs, Executive Secretary

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CHRISTMAS 1985 AND YOUR NEWSLETTER IN 1986

The Newsletter Editor sends seasonal greetings and good wishes for the next year to every reader.

Please send me more articles, long, medium or short, with clear line drawings if possible, field meeting reports, notes on collections, reports of visits to museums, etc.. A steady stream of contributions is essential to maintain a varied and interesting series of issues - four per annum - so why not transfer your thoughts and experiences to paper and post them to me?

P. E. Negus

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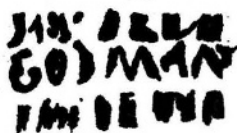
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GOD, MAN, AND THE EYE OF INNOCENCE

A friend of mine likes to produce little surprises from time to time, sometimes in the form of a guessing game. Once he asked me to point to any unusual feature I could find on a cone shell he had just taken from his cabinet. I looked closely but it seemed to me I was holding an unremarkable specimen of the common Lettered Cone, Conus litteratus L. He pointed to some markings on its surface. The markings formed two distinct and adjacent words: 'GOD' and 'MAN'. The tracing of them he kindly sent me is accurate.



Tracing of part of the colour pattern of a four-inch specimen of the Lettered Cone, Conus litteratus L., in the collection of Mr Eric Badcock. The middle row of characters clearly define the words 'GOD' and 'MAN'.

A sharp-eyed young lady had first spotted the markings and wrote later to tell my friend that her discovery of a shell so marked would stay in her mind 'for ever'. He had owned that shell for years but had overlooked those unusual markings. And if I had owned it for as long a time I am sure I, too, should have overlooked them. Such a discovery requires the eye of innocence. I may have had that kind of eye once but like most of us I lost it long ago. But the markings on my friend's shell set me wondering about the possible significance of markings on shells generally, something I should never have thought worth a moment's consideration before.

Oh yes, I know such markings are supposed to be the random products of a familiar biological phenomenon. I know the patterns on shells are the results of two interacting growth elements, continuity and rhythm. I have learnt all sorts of things about the markings on shells and what causes them from people like d'Arcy Thompson (1), Arthur Wrigley (2), Alex Comfort (3), Jeannette Struhskaer (4), Maurice Lucas (5) - and even Peter Dance (6). But they did not tell me if the markings are significant. If 'GOD' can be on a shell may 'God' also be hidden in a shell, so to speak?

The markings which most aroused my curiosity were those which took the form of letters, as on my friend's cone shell. I remembered the illustration of the Lettered Olive, Oliva sayana Ravenel, in d'Argenville's Conchyliologie (7). The engraving clearly shows the letters 'ABB' on the shell (which d'Argenville read as 'two Bs and a D'). So, as long ago as 1742 someone with the eye of innocence had discovered clear indications of letters on a shell. Then I recalled an article in



The Lettered Olive, Oliva sayana Ravenel, displaying the letters 'ABB'. Copper engraving from d'Argenville's Conchyliologie, 1742.

an obscure publication in my library which could have a bearing on the subject. I reached for a bulky volume containing miscellaneous works attributed to His Royal and Most Serene Highness The Prince of Mantua and Montferrat (8), fully aware that its author was a charlatan and an impostor, otherwise known as Charles Ottley Groom, notorious in late-Victorian London as the instigator of highly questionable if ingenious schemes involving other people's money and credulity (9).

One of the articles in this publication is entitled 'The origin of writing and reading from natural objects'. In it the author makes the following extraordinary observation: 'In the course of about six years research I have been able to discover a complete series of Hebrew, Greek, and Roman alphabets and Arabic numerals on natural objects, and have gathered the specimens together thus inscribed, so as to be able to set the question of these alphabets and Arabic numerals at rest for ever, as not of human invention, but as designed by the Author of nature to point out the chief tools that were to be used in the development of mankind.

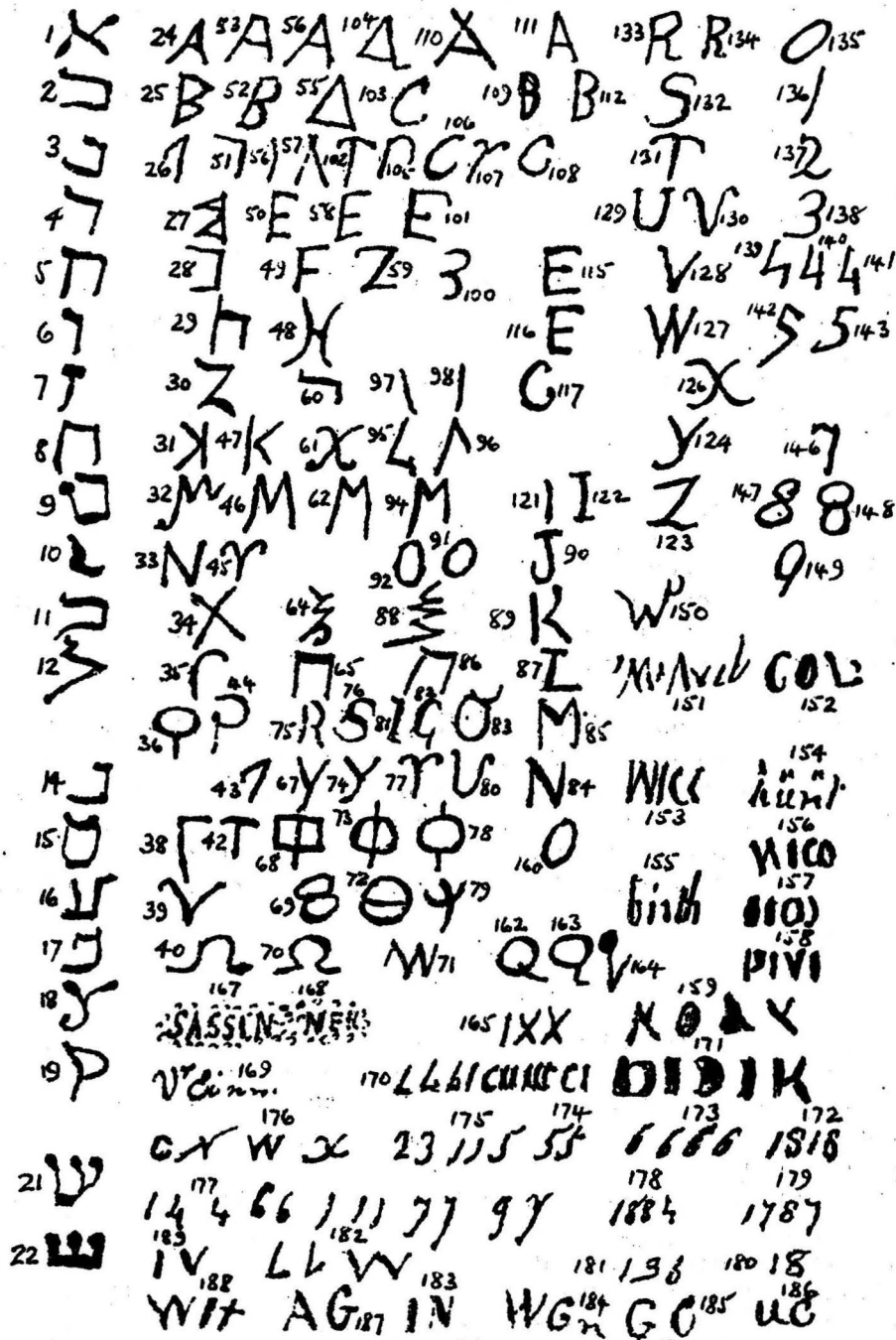
Besides the Roman and Greek alphabets and Arabic numerals, I have found characters forming parts of alphabets in the following languages - Phoenician, Etruscan, Egyptian hieroglyphics, Samaritan, Sanskrit, Arabic, Runic, Chinese, Japanese; and about thirty other forms of writing.'

Could this, I wondered, be the hidden significance of shell markings, or at least of some of them? Well, The Prince of Mantua - alias Charles Ottley Groom - does not go too deeply into the implications of his discovery but devotes most of the remainder of his article to listing the kinds of markings he had found and giving facsimiles of many of them. The great majority of his examples, it should be noted, are conchological and occurred principally on specimens belonging to the families Cypraeidae, Conidae, Olividae and Veneridae. 'Of natural objects', he remarks, 'none are so prolific in marks as the genera Oliva, Conus, Chione, Tapes, and Venus amongst molluscs. But very clearly defined letters are found on Bulla, Meroë, Phasianella, Terebra, Columbella, and Lioconchus.'

He had detected all the arabic numerals on shells in his own collection, singly or in various combinations, including '1,324', '1,518', and '1,787'. Roman letters occurred abundantly. 'The letter W', he says, 'is perhaps the most abundant character both on insects and shells, and the figure 8 is the most common amongst numerals ... The letter T also is extremely common. On an olive shell I T is found, a note of exclamation, and IIV, which expresses a number in Roman numerals. One olive shows HEE; another, a great mass of cuneiform letters. A small Venus is almost covered with minute Phoenician, Samaritan, and Etruscan characters ... on the bivalve Tapes are the rather significant letters MP, reminding us at once of a Member of Parliament and of Pontifex Maximus ... on Oliva utriculus Ur; on another Oliva, the well-known Etruscan word and the French surname of Mr Avil and BBR; on a species of Venus Vr. Einm. The letter q, the rarest of all the letters to find, is on this specimen.'

He was particularly impressed by a shell of the common European Garden Snail, Helix aspersa Muller. 'With a powerful magnifying glass', he says, 'this shell is

shown to be nearly covered with Greek and Etruscan letters, Roman characters, and Arabic numerals. RA is conspicuous, and a note of interrogation, which almost forces us to ask why these marks are placed there.' His final example is most impressive, an olive having 'what is especially interesting to a naturalist, the letter G, and at a little distance CUV, the abbreviation for the name of, perhaps, the most distinguished scientific man of modern times, George Cuvier.' The illustrations of all his conchological examples are reproduced here.



Facsimiles of characters on shells, extracted from 'The origin of writing and reading from natural objects' by Charles Ottley Groom. The majority of the characters

were derived from various species of Oliva (specific names not given) and Cypraea arabica. The names listed below are as given by Groom.

Tapes littoratus 177; Tapes sp. 35, 140, 146, 149; Venus sp. 68, 72, 121, 126, 139, 163, 169, 178, 179, 181; Chione sp. 95; Theba pisana 17; Helix vermiculata 167, 168; Helix sp. 117; Cypraea arabica 2, 3, 5, 6, 14, 26, 28-30, 32, 36, 40, 42, 44, 53, 54, 62, 64, 65, 73, 75, 79-83, 90-93, 96, 101, 102, 104, 108, 110, 116, 129, 133, 135, 160; Strombus lentiginosus 11; Strombus sp. 9, 148, 172, 174, 175; Cerithium obeliscum 8, 39; Columbella apardalina 19; Conus erythraeensis 1, 18; Conus millepunctatus 152-159, 171; Conus monile 16, 21; Conus nussatella 176; Conus sp. 50, 70, 86, 103, 115, 173; Mitra episcopalis 7, 22; Strigatella litera 141; Oliva erythrostoma 183, 184; Oliva sp. 4, 10, 12, 15, 24, 25, 27, 31, 33, 34, 38, 45-49, 51, 52, 55-61, 67, 69, 71, 74, 76-78, 84, 85, 87-89, 94, 97, 98, 100, 105-107, 109, 111, 112, 122-124, 127, 128, 130-132, 134, 136-138, 142, 143, 147, 150, 151, 162, 164, 165, 170, 180, 182, 187-189.

All this sent me scurrying to my own small collection of shells to see what characters I could find imprinted thereon. In a short time I had found several markings similar to those reproduced by The Prince of Mantua, alias Charles Ottley Groom. I found 'Rumm' on an Oliva bulbosa Röding, and '141' on another. A Conus generalis L. had 'RED' and 'K' as well as the rare 'Q'. And various examples of Helix aspersa displayed a wealth of characters all jumbled together, but one example had 'when' on it which our author, no doubt, would have found pregnant with meaning (my friend's shell with its 'GOD' and 'MAN' would certainly have knocked him for six).

No doubt a large collection of shells could produce enough combinations of alphabetical characters to fill a dictionary. But what does this prove, if it proves anything? Well, it certainly proves that the eye of innocence may take you rather further along the road of philosophical speculation than you ought to be taken. Then again it is possible, I suppose, for Nature to have provided models for us to discover and adapt to our use.

Although a sceptic in such matters I could flirt with the idea that the markings on shells and other natural objects could have helped us develop our various alphabets, but I doubt that the flirtation would turn into a love affair. And nothing could ever convince me that God chose a crook like The Prince of Mantua and Montferrat - alias Charles Ottley Groom - to reveal His purpose to us. On the other hand I might just be persuaded that he chose a sharp-eyed young lady to do the job ...

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- (4) Shell ornamentation. Hawaiian Shell News, March 1970, pp. 4, 5, 8.
- (5) Pigments in Mollusca. La Conchiglia, June 1974, pp. 5-10; (Part II), op.cit. July-August 1974, pp. 14-19.
- (6) The Shell Collector's Guide 1976, pp. 120-23, (pp. 122 & 123 transposed).
- (7) L'histoire Naturelle ... la Conchyliologie 1742.
- (8) The full title of this remarkable and undeniably rare volume is WORKS OF H.R. AND M.S.H. THE PRINCE OF MANTUA AND MONTFERRAT, PRINCE OF FERRARA, NEVERS, RETHEL, AND ALENCON. WITH AN INTRODUCTION, BY THE LATE CHARLES READE, ESQ., AND M. VICTOR HUGO: Founded on the Writings of above one hundred Eminent Men, in Review of these Works; AND A PREFACE, BY THE LATE LORD BROUGHAM AND VAUX.

ILLUSTRATED. THIRD EDITION. LONDON: DULAU AND CO., SOHO SQUARE. 1886. I have owned three copies of this work, each one ostensibly a third edition (but I very much doubt that there were two previous editions). I know of no other copies. The five-page article on markings is said to have appeared previously in the journal Burlington House. This is not the place to give an exact bibliographical description of the volume.

- (9) Some idea of Groom's ingenuity and duplicity can be gained from C. C. Osborne's article 'A London Munchausen' (Cornhill Magazine vol. 34 (N.S. No. 195), September 1912, pp. 337-57).

S. Peter Dance

POSTSCRIPT

It is surprising, perhaps, that our bogus Prince did not detect any Chinese characters on the shells he examined; and I must confess it did not even occur to me to look for them on those I examined. Maybe only the Chinese themselves could be expected to detect them. Recently, indeed, a Chinese citizen of Manila has done just that. Mr. Brian C. K. Dy has come across several seashells displaying Chinese characters (10).

'Meaningful' Chinese ideograms were detected by him on two different shells of Conus generalis L., one shell of Conus litoglyphus Hwass, and one shell of Oliva vidua Röding. These ideograms may be represented in English by the words An (= peace), Faang (= visit), Shyr (= stone), and Fen (= to command). If such ideograms occur commonly on seashells - and they probably do - the Chinese could be sitting on the meaning of the universe. If they are they certainly know how to keep it to themselves.

- (10) Chinese speaking shells. La Conchiglia, September/October 1985, p. 31 (photos and ideograms).

SOME RECORDS FROM KENYA, SEYCHELLES AND DEPENDENCIES

Dr. C. Vaucher of the Geneva Natural History Museum sent me for determination a small collection of land molluscs, some of which have proved of great interest, one in fact possibly belonging to a new genus. It is with the hope of obtaining more of the latter that this note has been written. Quite possibly material exists in other museum collections.

Locality 1. Kenya, Mombasa, Ukunda, July 1980, leg. C. Vaucher.

"Assemania" aurifera Preston. (Not a true Assimineia but probably a distinct genus in the Omphalotropidinae): 980.230

Truncatella guerini A. & J. Villa: 980.240

Edouardia tumida (Taylor): 980.233

Opeas pumilum Pfr.: 980.237

Locality 2. Seychelles, Amirantes, Île D'Arros, 19 July 1982, leg. C. Vaucher.

Nesopupa minutalis (Morelet) (Fig. 1 & 2)

Gastrocopta microscopica (von Martens)

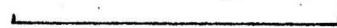
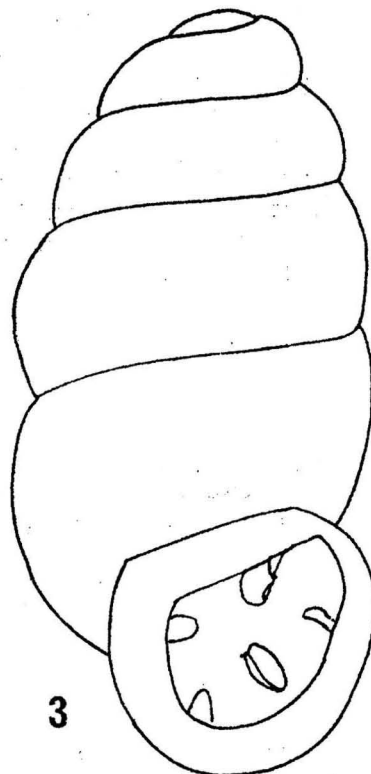
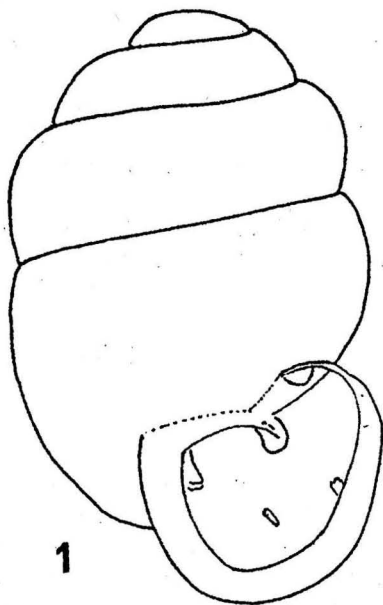
Succinea cf. concisa Morelet: 980.1667

Lamellaxis gracilis (Hutton): 980.1668

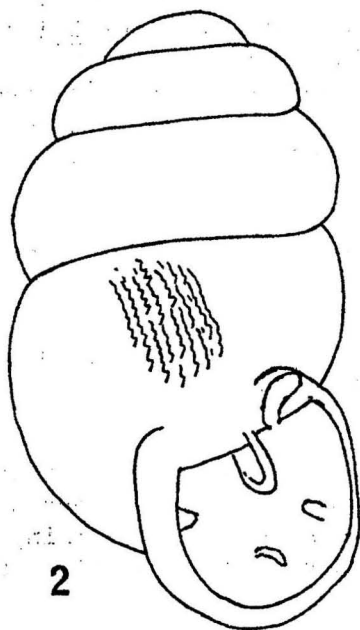
juvenile indet. Stenogyrid.

Locality 3. Seychelles, Amirantes, Île Eagle, 21 July 1982, leg. C. Vaucher.

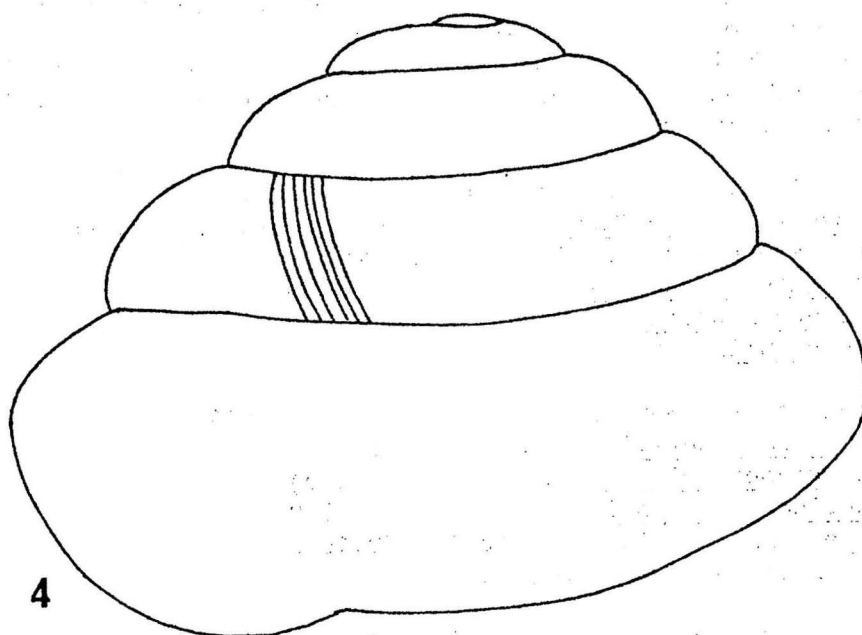
Gastrocopta microscopica (von Martens): 982/1670



1mm



1mm



1mm

Subulina striatella Rang: 982/1669

Lamellaxis gracilis (Hutton) broad form or related species: 982/1671

Locality 4. Seychelles, Amirantes, Île des Roches, 14 July 1982, leg. C. Vaucher.

Truncatella guerini A. & J. Villa: 982/1672

Gastrocopta microscopica (von Martens) (Fig. 3): 982/1674

? Lamellaxis gracilis (Hutton) and some similar Opeas-like species: 982/1673

Locality 5. Seychelles, Praslin, Côte d'Or, 30 July 1982, leg. C. Vaucher.

Truncatella guerini A. & J. Villa: 982/1675

Gonaxis souleyetianus (Petit): 982/1676

Subulina octona (Bruguière): 982/1677

Achatina sp. very juvenile: 982/1678

Opeas pumilum (Pfr.): 982/1679

Endodontid or Euconulid genus unknown, perhaps near Afropunctum (Fig. 4)

(A minute shell of $4\frac{1}{2}$ whorls with rounded scarcely angulate body whorl, very closely transversely striate almost to the apex, the striae extending on to the base for a short way the remainder being smooth save for very fine spiral striae; umbilicus narrow; animal ovoviviparous with caudal gland but no caudal tail. Two specimens were collected both with animal but these have not been dissected. Further material drowned outstretched and properly preserved in spirit is needed. I decided not to dissect the specimens which would involve destruction of the shells since to extract maximum information is beyond my competence.

Dr. W. Adam (Institut Royal des Sciences Naturelles de Belgique) kindly confirmed my determinations of Nesopupa and Gastrocopta and F. Naggs (British Museum (Nat. Hist.)) named the Truncatella. Duplicates of these respective genera are in the institutes concerned.

B. Verdcourt

PUTTING THE MUSSEL INTO GLUES

A US scientist has found a way to put mussel into underwater adhesives. The secretion that the mussel uses to attach its foot to piers and rocks is the key to a new glue which promises a range of applications from paints and adhesives that can be applied under water, to glues which can be used to patch up tissues and bones during surgery.

The new adhesive is based on millions of years of evolution on the part of the humble mussel, plus three years' research by John Waite, a biochemist at the University of Connecticut Health Centre, in which he unlocked and patented the mussel's sticky secret. Now his work is being exploited by Bio Polymers of Farmington, Connecticut.

Each month he would collect some 1,000 mussels from the Connecticut and Rhode Island shorelines just to extract a couple of milligrammes of the mussel adhesive. Waite found it was a protein which, on decoding its structure, consisted of amino acids, as is the case with all proteins, plus L-dopa - a modified amino acid, which is not usually found in proteins. Indeed, L-dopa is a neurological agent in man and is used to treat Parkinson's Disease.

The unravelling of the protein structure is not the whole story - how does the glue stick to a submerged rock, for example? Any trace of damp usually ruins the bonding effects of conventional glues. However, it has no effect in this case thanks to the L-dopa, which has two functions: first it pushes water away from the

surface of the rock; second, it contains a chemical group which provides sites for chemical bonding - a sort of molecular 'rivet'. The bonding occurs between the L-dopa and the rock surface. Just as important, bonding also takes place between individual protein polymers (very large compound molecules). The glue sets in the presence of sea water plus a special biological catalyst. In the hardening process, the L-dopa forms temporary bonds with the sea water, holding the polymer chains together. Meanwhile, the catalyst acts as a molecular welder forging links between the L-dopa contained within each protein molecule and adjacent proteins, turning the protein chains into a tangled mass or 'goop' according to Dr. Benedict.

Now glues based in the protein are being developed by Bio Polymers and a number of other companies, each collaboration being dedicated to a different application. At the moment all that is commercially available is Map - mussel adhesive protein - which is being used as a research tool.

One of the most important discoveries made about Map is that it is flexible and will bend without cracking. It grabs hold of rocks and boats - as the mussel already amply demonstrates - and so can be used as the basis for underwater adhesives and paints. As a bonus, it also seems to bond to collagen, the protein of skin, bone and the connective tissue between cells. Better still, experiments indicate that it is biocompatible, so rejection will not be a problem if it is used to replace sutures (stitches).

There are more immediate applications - every navy in the world would love to be able to paint the hulls of ships and boats in situ. North Sea oil rigs could also be simply protected with a lick of mussel adhesive-based paint. These applications alone will require massive amounts of material and, according to Dr. Benedict, Bio Polymers 'hopes to address these outrageous markets'. The first product is scheduled for next year and the company believes there will be a \$10 million market created within two years - in the marine world, alone.

Roger Highfield

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ENSIS MOBILITY OBSERVED

On Friday the 9th. of March 1985 at about 16.30 hours GMT, I was searching sand bars some 250 yards South of Small Mouth in Portland Harbour at some 100 yards out from high water mark. First low tide had been at 13.00 hours GMT but high atmospheric pressure had lowered the tide beyond table predictions.

Large numbers of Ensis, predominantly Ensis ensis (L, 1758), with a smaller proportion of Ensis siliqua (L, 1758) and Arcuatus (Jeffreys, 1865) were seen to eject themselves upon dry sand bars. I noted the presence of several generations, ranging from battered gerontics to 2 inch juveniles. The maximum population density was about 8 to the square yard with uneven distribution over possibly an acre of sand surface. Gulls were present but were evidently sated on Venerupis species and took little interest in the Ensis.

As the tide rose, the Ensis floated off in the horizontal position. Once clear of the previously exposed sand bars, a number were seen to eject bubbles. This left them with near neutral buoyancy but in a vertical position in the water. In this attitude they continued to drift with the foot touching the sand from time to time. Smaller bubbles were then ejected, the foot reached into the sand, obtained a grip and then, ejecting the remaining air, the Ensis drew themselves into the sand. Only Ensis ensis and Ensis siliqua were so observed. Ensis

arcuatus were not seen to settle so I am unable to assume that they employed the same procedure.

Ensis were not to be found in the same area in any numbers over the 4 subsequent daylight low tides. It is possible that they were reacting to barometric pressure, absenting themselves from the sand bars to the sub-tidal channels for the remainder of the tidal cycle to optimise feeding opportunities. On the face of it, this seemed a hazardous exercise, inviting heavy casualties. They seemed healthy and I ate a number of them without any ill effect.

If the observed phenomena is an example of normal but little known behaviour, it might help to explain the occasional mass strandings of undamaged Ensis which occur in open habitats. Only slack tides and calm waters would permit safe transit and resettlement.

G. D. Saunders, [REDACTED], Wyke Regis, Weymouth, [REDACTED]

THE NERITE THEODOXUS FLUVIATILIS (L.) IN ANGLESEY

A shell of the Nerite was collected on 25.3.1985 from the sands of Red Wharf Bay, Anglesey, by the Reverend Nigel Clemas. The example is beach worn but still retains some markings.

The Atlas of the non-marine Mollusca of the British Isles (Kerney 1976) gives no record for this part of Wales, and the nearest recorded locality for Theodoxus is the canal at Chester where W. H. Davies took it with Vivipara vivipara in 1917 (Jackson 1918 p.72) but it does not appear to have been obtained since then.

On 2.8.1947 the Tower Section of the canal in Chester had been emptied and Dr. J. O'N. Millott and Mrs. N. F. McM. made a careful search for Theodoxus but not even an old shell was found.

The Afon Nodwydd, the major stream entering Red Wharf Bay, is a lime-rich water, which sustains a population of a local caddis-fly Silo nigricornis (Pictet), not otherwise recorded in the area. A search for living nerites in the Nodwydd or other neighbouring streams would seem worthwhile.

While realising that a single shell, a mere waif, is certainly not satisfactory yet the presence of a hard-water stream near to the Red Wharf Bay find is suggestive. One is reminded of Mrs. Platts' discovery of living examples of the land-snail Pomatias elegans in the west of Ireland in 1976. Considered not to occur in Ireland, the occasional empty shells of the species picked up on beaches over many years were either ignored or dismissed as casual strays. Yet Mrs. Platts found a colony of living specimens in Co. Clare in 1976! (Platts 1977).

The Reverend Clemas has kindly presented his Theodoxus shell to Merseyside County Museums, Liverpool.

N. F. McMillan & I. D. Wallace, Merseyside County Museums, Liverpool

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REPORT OF THE BRITISH MARINE WORKSHOP, SATURDAY NOVEMBER 23rd. 1985

On a Saturday morning late in November last twenty of the Society's members with an interest in British Marine molluscs gathered at the Humfrey Rooms in Northampton - the premises of the Northamptonshire Natural History Society. In addition, Shelagh Smith, Celia Pain and Phil Palmer were present, acting variously as lecturer/advisor; whilst Tom Pain and Gordon Osborn worked throughout the day on the late Peter Oliver collection, which is now housed at the Humfrey Rooms. Participants in the Workshop arrived to find tables set out in blocks of four - primary school style. By a network of extension leads and multisockets everyone was able to link up their microscopes and lighting!

Every participant was issued with an envelope containing templates for the card forceps and dishes and a set of 'Identisheets'. These latter items were compilations of the best illustrations available at the present time of various families/genera/species covered during the day. Many of the drawings are not readily available and the idea behind these xeroxed sheets is that all the species of a family - for example the Rissoidae - should be illustrated side by side for easy comparison.

The day started with an illustrated talk by Shelagh Smith on the collecting techniques of small marines, and habitats generally. This was followed by a demonstration of shellsand sorting which Phil Palmer conducted using recommended equipment like graded sieves and various homemade 'custom-built' utensils like card forceps and sorting dishes. Several people took shellsand to sort during the day and at home. At about 11 a.m. we returned to our places with microscopes installed and set to work.

Relative beginners and more experienced collectors were all able to beaver away. Celia Pain had taken specimens of as many small species as her collection contains (which is no small number) and was able to use these as references for the flow of 'queries' that came her way. Shelagh and Phil moved around the room peering down various microscopes - there was a constant supply of customers. One member had taken a sample of a dredging from 145 metres off the Hebridean Shelf which at the third sorting was still yielding more unusual and unfamiliar species.

At lunchtime we broke off to eat; half the company going out to sample the variety of Northampton eating places; those remaining sat in groups and chatted in between mouthfuls.

At about 2 p.m. we re-convened for another plenary session with slides of species. The junior member present and the writer's small son were encouraged to sit and enjoy the colourful slides of the nudibranchs. The remainder of the afternoon was spent in sorting and identification. Throughout the day there was movement between tables and exchanging of information and specimens. One member's discard would be a welcome new addition to the collection of another.

The day was made the more enjoyable for the steady supply of liquid refreshments which was provided by members of the Northamptonshire Natural History Society who generously gave up their Saturday to do so.

The organisers were especially pleased to meet those members who have not attended, or do not regularly attend, the Meetings of the Conchological Society at the BM(NH) throughout the year and there was a special welcome for one of our juniors, Rupert Hough. We hope that you all learnt something during the day and that you enjoyed the opportunity of meeting fellow British Marine enthusiasts. Please do let us have your comments and suggestions for future occasions. We look

forward to meeting you again - if not before - at our next Workshop. Take note for your diaries - SATURDAY NOVEMBER 8th., same time same place.

Jan Light

FIELD MEETING AT FOLKESTONE, KENT, SATURDAY 27 JULY 1985, LEADER: PETER DANCE

A prolonged spell of sunshine, rare in 1985, helped to make this meeting an enjoyable occasion for the dozen members and non-members of the Society who assembled at this south eastern corner of the United Kingdom. Fortunately the party included two palaeontologists, Phil Palmer and Erroll Fuller, who provided guidance and expertise when the Gault Clay outcrop at Copt Point - a classic site - was examined for fossil molluscs. Phil Palmer assures me that all the fossils found this day came from the Dentatus and Loricatus Zones in the Lower Gault. There was no shortage of specimens although they were mostly fragmentary and belonged to very few species; as this locality is known to be extremely rich in fossil mollusc shells the following list is a soupcon merely.

Gault Clay Fossils:

<u>Bivalves</u>	<u>Inoceramus concentricus</u> Parkinson
	" <u>sulcatus</u> Parkinson
	<u>Pectinucula pectinata</u> (J. Sowerby)
	<u>Entolium orbiculare</u> (J. Sowerby)
<u>Gastropods</u>	<u>Anchura carinata</u> (Mantell)
<u>Scaphopods</u>	<u>'Dentalium' decussatum</u> J. Sowerby
<u>Ammonites</u>	<u>Hoplites dentatus</u> (J. Sowerby)
	" <u>spathi</u> Breistroffer
	<u>Anahoplites planus</u> (Mantell)
	" <u>splendens</u> (J. Sowerby)
	<u>Dimorphoplites parkinsoni</u> (Spath)
	<u>Epihoplites gibbosus</u> (J. Sowerby)
	<u>Hamites gibbosus</u> (J. Sowerby) - uncoiled form
<u>Belemnites</u>	<u>Neohibolites minimus</u> (Miller)
	" sp. - a large and unusual form

Jan Light, a newcomer to palaeontology, purred with satisfaction when her specimen of the belemnite Neohibolites was pronounced unusually large and complete for the species by Erroll Fuller. The rest of us, clutching plastic bags full of mangled fossils, silently gnashed our teeth.

East of Copt Point, so Phil Palmer tells me, 'Lower Chalk has slipped over Gault Clay in a series of rotational slips causing confused ground in the cliffs'. Evidently palaeontologists see things not vouchsafed to mere mortals. Anyway, the confused ground hereabouts is known locally as The Warren, formerly a haven for wild orchids. Below this once-celebrated beauty spot there is an extensive outcrop of the Folkestone Beds, a sandy formation which occurs here as a hard sandstone pock-marked with depressions which account for a wealth of weed-filled rock pools. All the marine molluscs collected this day were found in or around these rock pools between The Warren and Copt Point. The following list is the result of several hours of intensive searching by the dedicated dozen.

Recent Marine Molluscs: (live-taken except where otherwise indicated)

<u>Lepidochitona cinereus</u> (L.)	<u>Nucella lapillus</u> (L.)
<u>Patella vulgata</u> L.	<u>Buccinum undatum</u> L.
<u>Gibbula cineraria</u> (L.)	<u>Nassarius reticulatus</u> (L.)
<u>Lacuna vincta</u> (Montagu)	<u>Limapontia capitata</u> (Müller)

<u>Lacuna pallidula</u> (da Costa)	<u>Goniodoris nodosa</u> (Montagu)
" <u>crassior</u> (Montagu) - 1 fresh shell	<u>Acanthodoris pilosa</u> (Müller)
<u>Littorina littorea</u> (L.)	<u>Onchidoris bilamellata</u> (L.)
" <u>littoralis</u> (L.) agg.	<u>Mytilus edulis</u> L.
" <u>saxatilis</u> (Olivieri) agg.	<u>Venerupis pullastra</u> (Montagu)
<u>Rissoa parva</u> (da Costa)	<u>Ostrea edulis</u> L. - single valves
<u>Barleeia unifasciata</u> (Montagu)	<u>Petricola pholadiformis</u> Lamarck - dead
<u>Velutina velutina</u> (Müller)	<u>Mya truncata</u> L. - juvenile
	<u>Barnea candida</u> (L.) - single valves

Not an impressive list, perhaps, but one not without interest. It includes, for instance, Velutina velutina and Limapontia capitata, new records for Area 14. Celia Pain gets full marks for finding the latter, but points are shared for the discovery of the former. Mark Mitchell certainly spotted the Velutina but it was unquestionably attached to the underside of Jan Light's rock at the time. I understand that Mark and Jan are now talking to each other again.

Peter Dance

REVIEW

Mollusken uit het Mioceen van Winterswijk - Miste by A. W. Janssen.
Rijksmuseum van Geologie and Mineralogie 1984. Price: about f 55.00

About ten years ago the writer reviewed another work on the same molluscan fauna (Die Miozane Molluskfauna von Miste-Winterswijk by Nordsieck, F.) which had a number of serious deficiencies. By comparison the present work shows no obvious deficiencies and is thoroughly recommended to students of European fossil mollusca.

The work consists of a descriptive text (in Dutch) with Useful Chronostratigraphic and Lithostratigraphic tables of strata of the North Sea Basin from Oligocene to Miocene, a faunal list and comprehensive bibliography. Part two, which consists of plates fits separately into the back cover, an unusual arrangement but one which allows the plate and the description to be consulted simultaneously or separately, an idea worth using in other works where one finds oneself leafing backwards and forwards between plates and descriptions. The illustrations are excellent, clear photographs and drawings, showing also details of protoconchs and ornamentation.

Obviously the work is of great usefulness to workers on the North European Miocene but it also forms a useful part of the literature which shows how our modern fauna has evolved. It is surprising how many of the bivalves survived into the Pliocene and even to the present day. Familiar modern species like Arctica islandica or Corbula gibba occur. Other species, now extinct, but familiar to workers on the Coralline Crag are to be found.

The difficulties of working in what is virtually the bed of a stream are shown by a diagram illustrating the small scale hydraulic engineering used to collect large samples of mollusca, involving pumping and sieving techniques. Such methods could be used in streams in the New Forest area where the Eocene beds are found in the beds of streams. Thus the work not only shows the high standard of publications for the identification of material in Holland but also, in a minor way, the ingenuity, perseverance and hard work which are a feature of Dutch reclamation and coastal preservation.

P. G. Cambridge, October 1985

PUBLICATIONS RECEIVED

Note. All items mentioned will be held by T. E. Crowley for three months after issue of this Newsletter, so that any members who wish may borrow them during this period.

POIRIERIA 14, 2: August 1985

The Editorial (Ian Scott, [REDACTED], Auckland 4, New Zealand) deals with the continuing gradual destruction of the remarkable endemic landsnails of the Paryphanta and Placostylus families, suffering from the effects of introduced predators and the destruction of natural forests. The theme is taken up by an article Obituary: Powelliphanta lignaria rotella by P. R. Jamieson describing a trip to Northern Westland to map the distribution of certain shells in that area. Dead shells only were collected, live specimens were weighed, logged and returned. A proportion of the area has been felled and burnt in preparation for planting fir-trees.

Norman Douglas contributes an article on Periostracum preservation based on a glycerine formula. Many New Zealand shells, e.g. Cabestana, have long shaggy periostracum which needs special treatment if it is to be kept in good condition in the cabinet.

Other articles include Some observations on Amalda depressa by Ian Scott - this is a bivalve easily confused with its congeners; and notes on shell-collecting trips by Derrick Crosby and by Peggy Town et al.

PORCUPINE NEWSLETTER 3, 4: August 1985

The Editor is now Roger Bamber, Marine Biology Unit, C.E.G.B., Fawley, Southampton, SO4 1TW. The scope of the publication covers all things marine but in this issue items of molluscan interest include "Marine Recording Schemes: current Schemes and their Status" by Dr. R. Earll. The Biological Recording Centre, being a terrestrial organisation, has passed on its responsibilities to the N.C.C. which however, has no money to spend on developing their interest in marine recording: in any event, most of the schemes are independent of the N.C.C. Our own scheme for marine mollusca is one of the exceptions.

Book Reviews include "The Seafarer's Guide to Marine Life" by Paul V. Horsman (Croom, Helm £12.95)

T. E. Crowley

THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

The 984th. (Ordinary) Meeting held on 18th. May 1985 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 36 members and friends present

Death of members: The deaths of Mr. R. Macdonald, member since 1930, and Dr. W. J. Clench, member since 1926, were announced.

Nominations and elections: 4 full members and 1 junior member

Full members

Barber, Miss D., [REDACTED], Warsash, Southampton, Hants, [REDACTED]

Bassett, Miss E.S., [REDACTED], Llanelli, Dyfed, [REDACTED]
Donovan, Dr. S.K., NERC, Polaris House, North Star Avenue, Swindon, Wiltshire,
SN2 1EU
Parton, W.B.R., [REDACTED], Isleworth, Middlesex, [REDACTED]

Junior Member

Guest, Timothy, [REDACTED], Kingsworthy, Winchester, Hampshire, [REDACTED]

Announcement: The President drew the attention of members of the Society to the amendment to the Wildlife & Countryside Act currently under consideration by the House of Lords. She asked members to write to their local MP or peer in support of nature reserves, in particular marine areas. A draft form of letter would be available for members to study during the tea break.

Lecture: 'Non-marine mollusca of cold water' by Dr. D. Holyoak

Papers read: 1. 'Abyssal mollusca of the Arctic Ocean' by J. Knudsen
2. 'A first record of Potadoma (Swainson) from Eastern Africa' by P.G. Williamson
3. 'The distribution and habitat preferences of four species of Hydrobiidae in East Anglia' by A.J. Cherrill and R. James
4. 'New taxa of Gulella L. Pfr. and Ptychotrema Mörch from Eastern Africa' by B. Verdcourt

Announcements and Correspondence: the secretary read two letters, one from a person from Italy wishing to exchange shells, the other from a collector wishing to dispose of a cowry collection. Any interested members were requested to contact the secretary after the meeting.

Mr. Pain announced that the next Field Meeting would be at Red Crag, next Saturday. There would be a train at 9.30 a.m. from London to Ipswich, and all members should meet at 11 a.m. at Ipswich Station.

Mrs. Light announced that the Marine Workshop would be held on November 23rd. in Northampton, with details to appear in the next Newsletter.

The meeting closed at 5.00 p.m.

Exhibits

J. Light	<u>Chlamys islandica</u> (Muller 1776) - ancient and modern?
D. Heppell	Type specimen of <u>Buccinum brucei</u> (M. & S. 1900) Franz Josef Land
T. Pain	Genus <u>Clinopegma</u> Grant & Gale 1931 (type by O.D. <u>Buccinum unicum</u> Pilsbry 1905) Range: Sea of Japan, Sea of Okhotsk, Bering Sea
D. Guntrip	<u>Limax maximus</u> & <u>cinereoniger</u>
E. Sándor	Family <u>Cassidae</u> Swainson 1832
W. Karo	<u>Nautilus macromphalus</u> Sowerby 1849 - New Caledonia

The 985th. (Ordinary) Meeting held on 19th. October 1985 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 41 members and friends present

Death of member: The death of Dr. J.L. Bailey, life member since 1952 was announced.

Nominations and elections: 10 full members, 1 family and 1 junior member

Full members:

Bates, M., Royal Holloway & Bedford New College, Egham Hill, Egham, Surrey
Clifton, T.J., [REDACTED], Norden, Rochdale
Geological Survey of the Netherlands (G.S.N.), Rijks Geologische Dienst (Library
Dept.), Spaarne 17, P.O. Box 157, 2000 AD, Haarlem, The Netherlands
Harding, H.J., [REDACTED], Harlow, Essex, [REDACTED]

Haywood, J.F., [REDACTED], Kidbrooke, London, [REDACTED]
Hootun, D.J., Cert. Ed. Dip.RE, [REDACTED], Kitt Green, Orrell, Wigan,
[REDACTED]
Knowles, B.J., c/o. Screen Grafix Inc., 1331 Angono Street, Makati, Metro Manila
3116, Philippines
O'Driscoll, Mrs. R., [REDACTED], Eridge, Sussex, [REDACTED]
Savva, Mrs. D., [REDACTED], Ashford, Kent, [REDACTED]
Twort, R., [REDACTED], Vines Cross, Heathfield, Sussex, [REDACTED]

Family member:

Street, Mrs. C.M., [REDACTED], Barkingside, Ilford, Essex, [REDACTED]
Street, Master Stephen

Junior member:

Billingham, Richard, [REDACTED], Cradley Heath, Warley,
W. Midlands

Transfer to other membership: 1 junior to ordinary member

Freeman, P.M., [REDACTED], Palmers Green, London, [REDACTED]

Lecture: 'Molluscs in the English Channel' by Mr. N. Holme

Announcement: Mrs. J. Light announced that there were still some places available for the British Marine Workshop (Small species) being held on 23rd. November. Details could be obtained from the secretary.

Announcements and correspondence: Mr. Pain announced that the B.S.C.C. was holding its Annual Shell Show on Saturday 26th. October, open to the public from 1 p.m., at Napier Hall, Pimlico.

The secretary read two letters, one from Mr. Stewart who wished to sell two specimens of *Cypraea broderipii*, and the other from Mr. Weil of Cincinnati requesting help in collecting information and examples of Wentletraps.

Any other business: Miss Martina Wendell requested help with sorting and labelling a collection of marine specimens from the tropics and Ireland. Dr. Sandor offered his assistance.

The meeting closed at 5.05 p.m.

Exhibits

E. Sándor	Family Neritidae Rafinesque, 1815
C.J. Pain	Specimens and distribution maps from N. Holme's 1966 paper
E.B. Rands	British slugs and snails: <i>Limax</i> sp., <i>Milax gagates</i> , <i>Limax tenellus</i> , <i>Ponentina subvirescens</i> , <i>Zenobrella subrufescens</i> , <i>Zon. excavatus</i> .
D.W. Guntrip	<i>Toltecia pusilla</i> in Britain
D.R. Worth	Marine shells from the Sussex coast
J.D. Nunn	Information for members
T. Pain	The genus <i>Neptunea</i> Roding, 1798 in European Seas

The 986th. (Ordinary) Meeting held on 16th. November 1985 at B.M.(N.H.)

In the Chair: Mrs. E.B. Rands with 41 members and friends present

Nominations and elections: 3 full members

Mifsud, C., [REDACTED], Rabat, Malta
O'Connor, Dr. T., [REDACTED], Stockton Lane, York, [REDACTED]
Renton, Miss E., c/o. C.J.E. Pearson, [REDACTED], Dar-es-Salaam, Tanzania

Lecture: 'Pleistocene Molluscs of the Balearic Isles' by Dr. C.R.C. Paul

Announcements and correspondence: an auction of books was held for the benefit of the Society's funds.

The secretary read a letter from a Cuban Society requesting an exchange of journals. Anyone wishing to do this on behalf of this Society should contact the secretary. Mr. Negus reported that he had received a letter from Rev. Long who has retired to Camberley in Surrey. Rev. Long would be grateful to receive any records of non-marine mollusca from Jersey.

The president announced the dates of the meetings of the Society for 1986. She also requested nominations for Council, to be elected in March 1986. Nominations must be received by the secretary by the end of December.

The meeting closed at 5.37 p.m.

Exhibits

C.R.C. Paul	Some recent and fossil snails from Ibiza
J. D. Nunn	Information for members
D.W. Guntrip	<u>Cochlicella barbara?</u> in Buckinghamshire garden centre
S.P. Dance	'The Glory of the Sea' written by Darley Dale (1887) - two variant issues of the early edition
D.T. Holyoak	1. Land snails from Brittany and Normandy 2. Madeiran <u>Craspedopoma</u>
M.B. Seddon	1. An undescribed <u>Leiostylis</u> from Madeira 2. Some Pleistocene land Mollusca from the Madeiran Islands
D.C. Long	<u>Lauria sempronii</u> and other land Mollusca (colour slides of site)
B. Colville	Some snails from Norway that do not occur in Britain
P.E. Negus	Some Tertiary Molluscs
R.P. Scase	<u>Theodoxus oualaniensis</u> Lesson showing variation of colour pattern in one species
E. Sándor	A. Family Nassariidae Iredale, 1916 Subfamily Dorsaninae Cossman, 1901 B. Hybridization in the Genus <u>Lambis</u> Röding, 1798
D.R. Worth	Majorcan snails
J.U. Tuck	Shells from the Borough of Greenwich Museum, Plumstead

SUCCINEA OBLONGA DRAPARNAUD, 1801 FROM 10th. CENTURY YORK

The use of molluscs as indicators of past environmental conditions has been a well-established science since the days of Alfred Kennard, and these investigations have occasionally produced records of species outside their present range. Recent work at York University has yielded a list of 26 terrestrial gastropod species from deposits dated to the Anglo-Scandinavian period of the city's history (roughly A.D. 870 - 1050). The predominant taxa are unsurprising: Helix aspersa Müller, Discus rotundatus (Müller), Oxychilus alliarius (Miller) and Succinea putris (L.).

Amongst the less abundant taxa are a few woodland snails, such as Aegopinella pura (Alder) and Vertigo pusilla Müller, and species of more open country, including Candidula intersecta (Poiret) and Helicella itala (L.), all of these probably having been imported into York with cargoes of raw materials such as moss and straw. The most surprising record, however, is of the uncommon floodplain-dweller Succinea oblonga.

Two specimens of S. oblonga were recovered from rubbish pits dated to the Anglo-Scandinavian period. The specimens were identified by reference to descriptions given by Kerney and Cameron (1979) and Adam (1960) and by comparison with specimens in the collections of the Department of Biology, University of York,

which were collected and identified by Canon L. W. Grensted. One specimen has a damaged apex and the other is complete.

The present distribution of S. oblonga in Britain is decidedly local (Kerney, 1976, map 54), with groups of records from South Kent, South-West and Central Scotland, and North Lancashire. However, there are old records from many more sites, including 'rejectamenta at York' (Ellis, 1926, 136). Today, the vicinity of the Rivers Ouse and Foss where they flow through York offer little encouragement to a species which favours 'dried-out bare muddy surfaces' (Kerney and Cameron, 1979, 59), 'marshes and sides of ditches' (McMillan, 1968, 118) or 'aux environs des ruisseaux et des rivières' (Adam, 1960, 201). However, it seems likely that in the precanalised era of the rivers' history there would have been substantial marshy areas along both rivers which would have corresponded to the upper and lower limits of the annual cycle of water levels in the rivers, providing more extensive habitats for succineids and other water-margin species.

These records of an uncommon species highlight the value to mollusc ecology of studies of ancient snail populations. The mapping of the present-day distribution of species is well in hand, and these archaeological recoveries allow the modern distributions to be seen in their temporal context.

- Adam, W. 1960. Mollusques terrestres et dulcicoles. Faune de Belgique vol. 1. Brussels
- Ellis, A.E. 1926. British snails. Oxford
- Kerney, M.P. 1976. Atlas of the non-marine Mollusca of the British Isles. Cambridge
- Kerney, M.P. and Cameron, R.A.D. 1979. A field guide to the land snails of Britain and North-West Europe. London
- McMillan, N.F. 1968. British shells. London

Dr. Terence O'Connor, Dept. of Biology, University of York, York, YO1 5DD

A NOTE ON THE A. S. POORE COLLECTION OF SHELLS IN THE GREENWICH BOROUGH MUSEUM,

PLUMSTEAD

Working in the Greenwich Borough Museum, I have recently catalogued and registered the A. S. Poore collection of shells, which dates from the turn of the Century. It was donated to the museum in July 1925, and has not previously been studied. I feel that it is a valuable collection, of historic potential as regards the molluscan records of at least the Borough of Greenwich.

A. S. Poore joined the Conchological Society in 1898, his address then being "Heatherview", West Heath Road, Bostall Heath, Abbey Wood, S.E.2. He was at an excursion of the Society to Plumstead Marshes on 6 May 1905 (J.Conch. 11 [1905]:222) and resigned from the Society in January 1907. He died on March 31st. 1934 aged 75 years, at Ormandy House, Picardy Road, Belvedere, Kent.

He was, according to his obituary in the Transactions of the Plumstead and District Natural History Society (No. 3, 1933 and 1934, Dec. 1934) one of this Society's keenest workers:

"He devoted nearly all his spare time to scientific pursuits. He was an expert on Bees and Beekeeping, and on numerous occasions gave talks and demonstrations on the subject in the (Greenwich) Borough Museum. He also assisted in arranging the Museum collections and donated exhibits of shells, bees and other specimens. He gave valuable help in the excavation of the Lessness (Lesnes) shell-

beds, the results of which have proved of much scientific value. He also determined the Mollusca of the Lessness Woods as recorded in St. John Marriott's "British Woodlands". Mr. Poore was a regular attendant at committee and other meetings both in the library and in the field. His loss will long be felt."

I have compiled a list of species and their data which I think are the most interesting; a complete list of the collection is available from the Greenwich Borough Museum, 1st. Floor, Plumstead Library, Plumstead High Street, London, SE18 1JL (01-855 3240)

My thanks are extended to Mr. Tom Pain and Dr. Michael Kerney for providing details of Poore's Conchological Society membership, and to Dr. Michael Kerney for help with the identification of specimens.

The following is a portion of the collection which comprises 119 species of British non-marine mollusca with data and 40 species of British marine mollusca also with data:

Name of species	Location (VC)	No. of specimens	Date
<u>Acanthinula aculeata</u> (Muller 1774)	Ingleton, Yorkshire (64)	5	1898
<u>Assimineia grayana</u> Fleming 1828	Rainham, Essex (18)	12	1898
<u>Balea perversa</u> (Linnaeus 1758)	Douglas, Isle of Man (71)	14	1898
<u>Bithynia leachii</u> (Sheppard 1823)	Plumstead Marshes (16)	21+8 op.	1898
<u>Bithynia tentaculata</u> (Linnaeus 1758)	Abbey Wood Marshes (16)	10+6 op.	1898
<u>Ceruella neglecta</u> (Draparnaud 1805)	Springhead nr. Gravesend, Kent (16)	1	c.1895
to be confirmed			
<u>Chondrula tridens</u> (Muller 1774)	Redditch, Worcestershire (37)	1	c.1895
	Ingleton, Yorkshire (64)	6	c.1895
<u>Ena montana</u> (Draparnaud 1801)	Nr. Selborne, Hampshire (12)	2	c.1895
<u>Helicodonta obvoluta</u> (Muller 1774)	Winchester, Hampshire (11)	1	c.1895
<u>Helicogona lapicida</u> (Linnaeus 1758)	Wickham (16)	5	c.1895
	Selborne, Hampshire (12)	2	c.1895
	Buxton, Derbyshire (57)	3	c.1895
<u>Helix pomatia</u> Linnaeus 1758	Caterhouse Valley, Surrey (17)	1	1894
<u>Leiostylia anglica</u> (Wood 1828)	Glen Meay, Isle of Man (71)	5	1893
<u>Monacha cartusiana</u> (Muller 1774)	Lewes, Sussex (14)	6	1897
<u>Myxas glutinosa</u> (Muller 1774)	St. Nicholas Marshes, E. Kent (15)	2	c.1895
<u>Ovatella myosotis</u> (Draparnaud 1801)	Rainham, Essex (18)	10	1898
<u>Oxychilus glaber</u> (Rossmassler 1835)	Burnley, Lancashire (59)	7	1897
<u>Pomatias elegans</u> - specimens from 6 localities comprising 354 specimens			
<u>Pseudamnicola confusa</u> (Frauenfeld 1863)	Erith (16)	2	1898
<u>Pyramidula rupestris</u> (Draparnaud 1801) - 121 specimens from 3 localities			
<u>Spermodea lamellata</u> (Jeffreys 1830)	Merionethshire, Wales (48)	3	c.1895
<u>Theba pisana</u> - 30 specimens from Tenby, S. Wales (45) from 1894-1898			
<u>Trochoidea elegans</u> (Gmelin 1791)	Nr. Dover (15)	5	c.1895
<u>Truncatellina cylindrica</u> (Ferussac 1807)	Skegness, Lincolnshire (54)	1	c.1895
<u>Vertigo alpestris</u> Alder 1838	Shipley Glen, Yorkshire (63)	3	c.1895
<u>Vertigo angustior</u> Jeffreys 1830	Portealou, Co. Donegal, Ireland	1	c.1895
<u>Vertigo antivertigo</u> (Draparnaud 1801)	Shipley Glen, Yorkshire (63)	4	c.1895
<u>Vertigo moulinsiana</u> (Dupuy 1849)	Wicker Fen, Cambridgeshire (29)	2	c.1895
<u>Vertigo pusilla</u> Muller 1774	Ingleton, Yorkshire (64)	1	c.1895
<u>Vertigo pygmaea</u> (Draparnaud 1801)	Anglesey, N. Wales (52)	2	c.1895
	Clitheroe, Lancashire (59)	59	c.1895
<u>Vertigo substriata</u> (Jeffreys 1833)	Shipley Glen, Yorkshire (63)	1	c.1895

Marine shells

<u>Acteon tornatilis</u> (Linnaeus)	Carmarthen Bay	4	c.1895
<u>Barnea parva</u> (Pennant)	Kimmeridge Bay, Dorset	2	1899
<u>Petricola pholadiformis</u> Lamarck	Shellness, Deal	2	c.1895
<u>Philine quadripartita</u> Ascanius	Tenby, S. Wales	3	c.1895
<u>Pleurobranchus membranacea</u> (Montagu)	Trawled off the coast of Devon	int. shell 1	c.1895

J. U. Tuck, 4.10.85

GENERAL NOTES

CORRECTION - Newsletter No. 93, June 1985, p.272 first line, read 'rigorous' not 'vigorous'. The Status of *Helix omalisma* Bgt. (Pulmonata: Discidae) B. Verdcourt

TAXONOMIC WORKSHOP ON MOLLUSCA EBSA - Scottish Marine Biological Association

The 1986 EBSA-organised taxonomic workshop will take place 28 April - 2 May 1986 at the Dunstaffnage Marine Laboratory of the SMBA, Oban. The workshop, on the identification of Mollusca, will be led by Shelagh Smith (Royal Scottish Museum), Bernard Picton (Ulster Museum) and Julia Nunn (Conchological Society of Great Britain and Ireland).

The workshop will be of interest to those doing research or recording or monitoring surveys on estuarine and marine communities.

Those interested should contact: Dr. Brian Barnett, AWA Marine Laboratory, Elsham Treatment Works, Elsham Wolds, Nr. Brigg, South Humberside, DN20 0NU (Telephone: 0652 680271)

SHORE WALK AT CLACHAN SOUND Marine Conservation Society - EBSA

There will be a shore walk through Clachan Sound on Sunday 27 April 1986. Clachan Sound is about 25km south of Oban (NGR 17/785197). The main theme of the walk will be Mollusca and their habitats. Ad lib collecting and disturbance of the shore will be discouraged but samples of microhabitat - algae, gravel, etc., will be taken for investigation during the EBSA workshop on Mollusca.

For further details please write to Shelagh Smith, Royal Scottish Museum, Chambers Street, Edinburgh, EH1 1JF

DOWROG COMMON, PEMBROKESHIRE

Dowrog Common lies just over a mile to the north-west of St. David's, at SM 772270, and consists of some 200 acres of lightly grazed common with extensive development of wet grass-heath. In the north-east corner and around the River Alun and Dowrog Pool, tall herb, marsh and fen communities are developed. There are several small pools in addition to the main one, some permanent, some seasonal.

The Common belongs to The National Trust but is managed by the West Wales Trust for Nature Conservation as a nature reserve. It has been designated a SSSI by the NCC, and has recently been added to the Nature Conservation Review as a Grade 1 Heathland Site, i.e. on a par with sites such as Thursley and Hankley Commons (Surrey), and Morden Bog (Dorset). This recognition is based on vegetational characteristics but the limited entomological work carried out to date certainly suggests that it is a very important site.

The West Wales Trust are very keen to have further information on the invertebrate fauna, particularly as regards the implications to their management work. It is hoped that a base can be found to support meetings in the area, but in the meantime, if anyone is likely to be visiting West Wales, and would be interested in sampling the Dowrog fauna, then they should contact John Comont, at West Wales Trust for Nature Conservation, 7 Market Street, Haverfordwest, Dyfed, SA61 1NF

(Telephone 5462), and he will issue permits, give you details on how to find the site, car-parking, and supply maps of the Reserve.

The mollusc list currently stands at five species, with Aplexa hypnorum the most interesting.

Keith Alexander

TYPES OF REVOILIA BGT. In their revision of this genus Crowley and Pain (J. Conch. 29: 351-364 [1978]) make no mention of whether or not they examined the types of the numerous "species" described by J. R. Bourguignat. Whilst working for a day in the Laboratoire de Malacologie, Museum National d'Histoire Naturelle, in Paris in November 1985 I noticed that type material of most of these names was present in the separated collection of Bourguignat material.

B. Verdcourt

PISIDIUM VINCENTIANUM B.B.WOODWARD AND THE WHITE BOG, CO. DOWN

The White Bog near Killough, Co. Down, Northern Ireland, was the first British locality to yield specimens of P. vincentianum. Stelfox and Welch investigated the deposits of the White Bog (so called for its shell-marl) in 1913 and took fossil specimens of P. vincentianum, then new to Britain.

In 1970 further investigations of the Bog and its marl deposits were made by Stelfox, Kuiper, Mitchell and the writer, and the results were duly published (Proc. Royal Irish Academy 72B, 185-207. 1972).

All the White Bog material, including all that collected in the earlier work as well as that more recently obtained was deposited in the Ulster Museum in 1984.

Nora F. McMillan, Department of Invertebrate Zoology, Merseyside County Museums

PISIDIUM CONVENTUS CLESSIN FOSSIL IN IRELAND

Some Pisidia in the Stelfox Collection (now in Merseyside County Museums) bear this label in Stelfox's handwriting "assoc. with Megaceros! Dunshaughlin ME [i.e. Co. Meath NFMCM] July 1928. Dr. Stokes". Dr. Kuiper has examined these specimens and has named them Pisidium casertanum (the most frequent), P. conventus, and P. lilljeborgi.

As in Professor Mitchell's account of lacustrine deposits nr. Dunshaughlin (1940) a short and admittedly incomplete list of Mollusca is given (on p.36) with the Pisidium spp. left unnamed it may be useful to put on record Dr. Kuiper's determinations.

Megaceros is, of course, the Giant Deer (formerly known as the Irish Elk). There is a magnificent artist's impression of a Giant Deer on pl.11 of Mitchell's book The Irish Landscape (1976).

Reference: Mitchell, G.F. 1940. Proc. Royal Irish Academy 46B; 13-37.

Nora F. McMillan

NOTICE - INTERNATIONAL PALAEONTOLOGICAL ASSOCIATION

Plans are being prepared for the 5th. Edition of the DIRECTORY OF PALEONTOLOGISTS OF THE WORLD to be published by the International Palaeontological Association in time for distribution at the 27th. International Geological Congress, Washington, D.C., 1989. Formal notification and timings will be issued in 1986; requests for information from individual palaeontologists and palaeontological associations will be distributed throughout 1987 and 1988 with a deadline for receipt of data of December 1988; computerization of data will proceed through 1988 with final preparation of text and publication during 1989.

It is intended to provide the most complete listing possible of all of the active palaeontologists of the world. We expect to obtain data from palaeontological societies and organisations of all kinds as well as from individual palaeontologists. Palaeontological groups and individuals who are not members of IPA or who do not regularly receive the journal or newsletter of an IPA Corporate Member,

should contact the Directory editor or IPA secretariat during 1987-88 to insure inclusion in the Directory. Suggestions and advice from all interested parties are welcome.

Copies of the 4th. Edition of the DIRECTORY are still available from R.E. Grant (same address as Editor, below) for U.S. \$7 (to individual members of national palaeontological societies or sections) or U.S. \$10 (all others).

Rex A. Doescher, Directory editor, Department of Palaeobiology, E-207 Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

William A. Oliver, Jr., Secretary-General, IPA, U.S. Geological Survey, E-305 Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, c/o. British Museum (Natural History), Cromwell Road, London, SW7 5BD: 14 December 1985. ITZN 59. The following Opinion has been published by the International Commission on Zoological Nomenclature in the Bulletin of Zoological Nomenclature, vol. 42, part 4 on 6 Dec. 1985. Opinion No. 1366 (p.359) Macra sachalinensis Schrenk, 1862 (Mollusca, Bivalvia): conserved. The Commission regrets that it cannot supply separates of Opinions. P.K. Tubbs, Executive Secretary.

PHASEOLUS CARACALLA - The Snail Flower: This bloomed at Wisley in September 1984 for the first time. The sweet-scented flowers of this vigorous climbing plant hang down in clusters. The lower and upper petals are both coiled. Seldom seen cultivated in Britain, it is believed to be one of the earliest introductions of an exotic plant, and was at Hampton Court in 1690. Considered to be a native of Brazil, and brought to Europe by the Portuguese, it was appreciated in Rome and Venice in the early 18th century. "The Garden", RHS Journal for August 1985 has an illustrated article by Anne Swithinbank and Peter Barnes. from Betty M. Smith

SHELLCRAFT MUSEUM. Mr. Cecil Williamson, [REDACTED], Witheridge, Tiverton, Devon, [REDACTED], wishes to dispose of his Shellcraft Museum, a unique collection, and would be glad to hear from anyone interested in acquiring this. Please write or telephone [REDACTED].

FOR SALE: Top quality worldwide specimen shells from the common to the very rare. In particular Cypraeidae, Conidae, Volutidae and Muricidae. Enclose stamp for price list. All enquiries welcome. Alistair Moncur, [REDACTED], Camberley, Surrey. Telephone [REDACTED].

WANTED: Part 1 (only) of Vol. 2 of F.W. Harmer's "The Pliocene Mollusca of Great Britain", to complete the volume. If anyone has a copy to spare please send note of price required to Mr. J.D.R. Fryer, [REDACTED], Wandsworth Common, London, [REDACTED]

ADVERTISING CHARGES - CONCHOLOGISTS' NEWSLETTER

Please note that after this issue, advertising charges will be increased as follows: Small adverts, up to 8 lines, in the body of the Newsletter - £5 per insertion, £19 for four insertions.

Single A4 sheet inserted in the envelope with a Newsletter - £30.

Requests for information, exchanges, etc. will continue to be inserted free of charge to members.

MEMBERSHIP LIST - 1986

A revised List of Members is in course of preparation and will probably be issued in June next. Will members requiring any correction or amendment to their entry please send a note to the Hon. Secretary, Dr. Julia Nunn, as soon as possible.

EBB TIDE

Pink shells, pale shells, scattered on the sand,
Pink seaweed, pallid strands, and green, the tide
Past its prime, alone in thought, I stand
And contemplate the many things, which hide
From our eyes beneath the sea, now laid
With random care about the shore, star-fish
Sprawled stark-dead, whelk's egg, a garland made
Of glist'ning chestnut ribbon bent --- I wish
I could tell its colour, curves --- there caught,
With little feet on stone, a scuttling crab,
Iridescent jelly blob, a sort
Of urchin prickle-kissed, a stranded dab,
Just a tiny sample, little spent,
Wealth, from stores below the waters lent.

Betty M. Smith

ANNUAL SUBSCRIPTION - A REMINDER

Dear Members,

The Annual Subscription for 1986 was due on 1st. January. I shall be very grateful if Members who have not yet paid will do so without individual reminders.

Please note that no further publications will be sent to Members whose current subscriptions are in arrears, although any which have been withheld will be sent on receipt of the arrears. No Member whose current subscription has not been paid in full is entitled to vote in the election of Council Members.

Cheques and P.O.'s should be made payable to the Society and sent to me. Receipts will not be sent unless requested, and such a request must be accompanied by a stamped addressed envelope.

MARJORIE FOGAN, Hon. Treasurer,
[REDACTED], Atherton, Manchester, [REDACTED]

Ordinary Member	£10.00 (U.S. \$19.50)
Family Members	£12.00 (U.S. \$22.50)
Junior Member	£ 2.00 (U.S. \$ 7.50)
Institutional Member	£15.00 (U.S. \$27.00)

Ordinary, Family and Institutional Members may deduct £1.00 (\$1.50) from subscriptions paid before 31st. March.

WANTED - CUTTLEFISH BONES: Not for conchological study but as a calcium supply for the museum tortoise. Dr. June Chatfield, The Gilbert White Museum, The Wakes, Selborne, Alton, Hampshire, GU34 3JH

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June 1986

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Produced by THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

THE BRITISH WILDLIFE APPEAL

Since about 1949 an area of "prime habitat" approximately equivalent to the Lake District has been destroyed. In this very short time it has been estimated by the Nature Conservancy Council that Britain has lost -

- (1) over 95% of its herb-rich grasslands
- (2) nearly 50% of its ancient and semi-natural woodlands (more has been destroyed in the last 30 years than in the previous 300!)
- (3) 80% of chalk grassland
- (4) 50% of lowland marshes and fens
- (5) over 30% upland, grassland heath and blanket bog
- (6) 60% of lowland heaths

Many areas have also suffered from widespread pollution of the air and fresh-water and marine habitats. Such losses have occurred partly because of urban and transport development but most significantly as a result of many industrialised and "rationalised" agricultural and forestry practices. These have greatly increased yields and profitability helped considerably by large amounts of Government and E.E.C. grant aid and guaranteed prices.

Despite the 1981 Wildlife and Countryside Act the habitat losses have continued (even to many of those premium sites known as Sites of Special Scientific Interest - S.S.S.I.s.). As a result of -

- (1) widespread continuing losses of "unspoilt" or valuable habitats
- (2) land sales by the Forestry Commission
- (3) complexities and problems in the implementation of The Wildlife and Countryside Act
- (4) changes in E.E.C. agricultural policy

- a great deal of so-called marginal land of conservation value is coming onto the market. Unfortunately, all too often, money is not available for Nature Conservation Trusts to purchase such sites. As a result of these problems and opportunities the Royal Society for Nature Conservation's British Wildlife Appeal was launched by H.R.H., The Prince of Wales, at The British Museum (Natural History) on 22nd. October 1985.

The Appeal has four objectives -

- (1) To buy land with endangered species or declining habitats.
- (2) To protect the land and other sites in their care.
- (3) To give everyone, including young people, a chance to know and enjoy our wildlife in town and country.
- (4) To promote greater public awareness of the threat to our wildlife.

The British Wildlife Appeal needs £10 million in order to purchase and protect threatened sites and run its education programme. If you would like to contribute

to The British Wildlife Appeal then donations may be sent to -

Sir David Attenborough, C.B.E., F.R.S., British Wildlife Appeal, 21 Bury Street, London, EC3A 5AU.

If you would like further details and an Appeal form please send a S.A.E. to - Dr. Martin Willing, Hon. Conservation Officer, [REDACTED], Midhurst, West Sussex, [REDACTED].

CONCHOLOGY STARTS AT HOME

In recent years a number of natural history articles and books have been written on wild life in the garden giving hints on how to manage a garden to encourage this. As any gardener knows, snails and slugs are also at home in this habitat and in regions on acid rock, a greater variety and abundance of snails occurs in the mineral enriched soils of gardens compared with acid soil of surrounding countryside. When I led a snail course at the Draper's Field Centre in Snowdonia in 1974, the field centre grounds proved to be the richest collecting site.

Like other creatures, snails prefer a garden which is not too tidy, for this provides plenty of moist places and shelter in the daytime. A garden can yield enough material to start to learn the identification of the species, while useful and interesting observations can be made on the behaviour of these animals when they are active at night or after rain.

My present Hampshire garden is fairly large and situated on a steep north-facing slope of Lower Chalk: it therefore has a highly calcareous soil. The lower strata of the chalk are impure, containing a high mud content that give it a grey colour, and the soil that weathers from this, tends to be damp most of the time. There is an indication of the dampness in the wet grassland plant Lady's Smock (Cardamine pratense) that grows on the front lawn. With little time for maintenance the garden has rather an unkempt look but a compensation is its richness in all types of wildlife, also enhanced by being on the edge of the country. Habitats include a large area of lawn - a fine-leaved turf of Festuca rubra - which is irregularly mown and supports plenty of feather moss and big clumps of primroses that flower in spring. There is also an old field hedge of mixed thorn with a steep chalky bank below, herbaceous borders with thick clumps of perennials, two vegetable plots, soft fruit patch, a compost area, nettle patches and some rotting wood. To date 23 species of slugs and snails have been found in this garden including Pomatias elegans, one of the two British land operculates and a calcicole restricted to lime-rich soils. On a wet warm day I have counted up to 25 P. elegans on the surface of the chalky hedgebank. In the same place live Discus rotundatus, Vitrina pellucida and Ena obscura. The blind burrowing snail Ceciloides acicula is found in loose soil of yellow ant nests on the lawn while the Hedgehog Slug Arion intermedius, Common Grey Field Slug Deroceras reticulatum and the snails Vallonia excentrica, V. costata, Aegopinella nitidula and Trichia hispida occur elsewhere on the lawn and slightly taller grass under the apple tree. Taking opportunity of greater shelter in the herbaceous border are Helix aspersa, Cepaea hortensis, Trichia striolata, Monacha cantiana, Oxychilus draparnaldi, O. cellarius, Aegopinella nitidula, Cochlicopa lubrica, Arion circumscriptus agg., A. hortensis s.s., A. distinctus, and Milax budapestensis. Of these Monacha cantiana is particularly abundant. Large slugs like Arion ater agg. and Limax maximus frequent the vegetable garden, the latter only occasionally found, but more common is Deroceras reticulatum which takes its toll from time to time on young plants while Milax budapestensis investigates and tunnels into the maincrop potatoes.

My present garden has little in the way of old walls but when I lived at Llantwit Major on the Vale of Glamorgan in South Wales the garden of the cottage was surrounded by a wall of local Liassic Limestone full of crevices in which molluscs could hide. The damp zone sheltered by grass at the base was occupied by Pyramidula rupestris (a typical wall and rock snail), Clausilia bidentata, Lauria cylindracea, Discus rotundatus, Trichia striolata and Helicigona lapicida. Another garden, this time of a Victorian house in central Cardiff boasted a particularly high slug population enjoying the high rainfall of western Britain. The yellow slug Limax flavus sheltered deep in crevices of the garden wall of Pennant Sandstone - at night these were to be seen crawling on the wall and they even invaded the house. The Cardiff garden was the source of live specimens of Oxychilus draparnaldi that were used for the illustrations of the species in Michael Chinery's book The Natural History of the Garden (1977).

Molluscs require lime to make their shells, a food supply of rotting vegetation, and nettles, as well as young vegetables, moisture and shelter sites to which they can retreat in daytime. The more habitats there are the greater the potential of the garden for molluscs and a good learning situation for identification. Gardens are also ideal places in which to undertake overnight observations on the behaviour of slugs and snails which can still usefully contribute to our knowledge of these animals.

June Chatfield

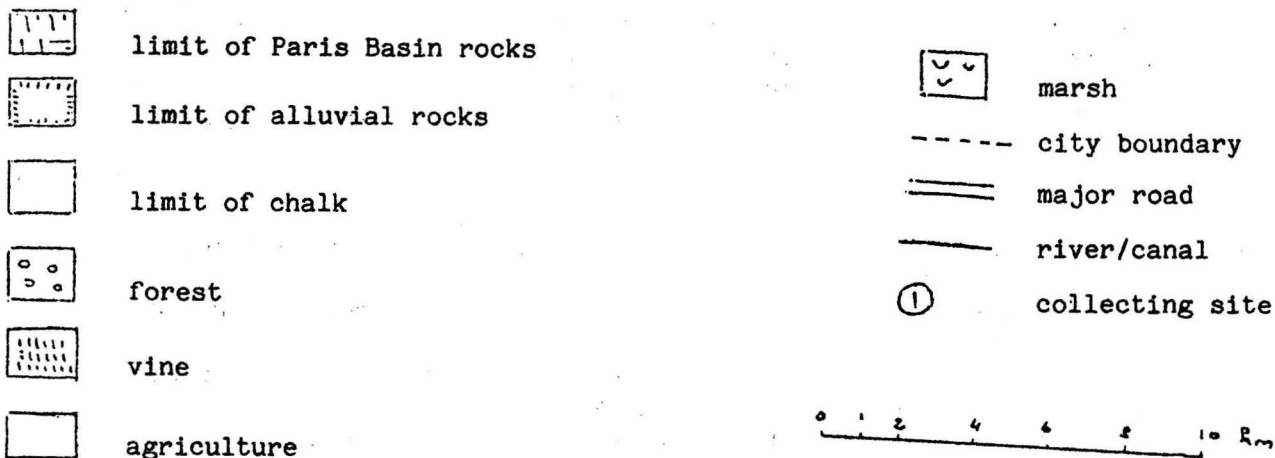
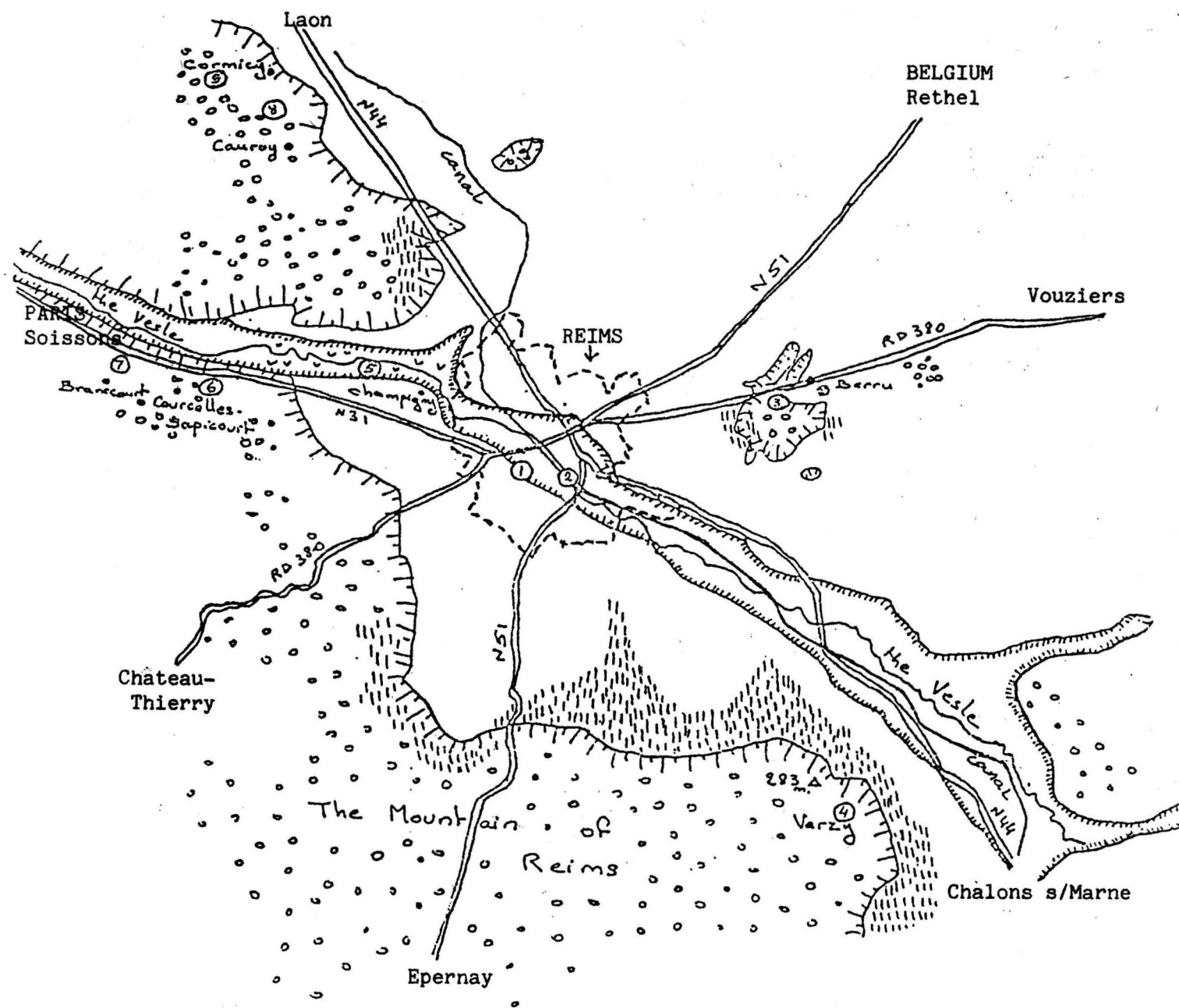
COLLECTING MOLLUSCS AROUND REIMS, FRANCE

Reims is situated in northern France, 143 kilometres north-east of Paris: it is in the Champagne region well known for its vineyards and wine cellars and has a favourable climate. Much of the countryside to the east is fairly flat: this is an area on chalk and much used for agriculture. To the west and south of Reims is an undulating landscape formed from Tertiary rocks of the Paris Basin structure. These provide the highest ground in the south - the Mountain of Reims (283m.) - which is a regional park. There are small outliers of Tertiary rocks in the chalk zone, as at Berru, one of the localities which we studied. All the collecting sites were on Tertiary rocks or on Recent river alluvium (Champigny and Reims): we did not collect in the agricultural land on the chalk.

A great variety of habitats can be found in this area which is reflected in a rich fauna of land and freshwater molluscs. This article is based on the results of four days of field work in November 1984 when we collected in woods, marshes, grassland, roadside verges, streams, river, canal, ponds and in two city parks. The nine localities visited are listed and described below, their position illustrated on the map and the lists of molluscs found are shown in the table of results.

Habitats and localities

1. Reims - Parc Leo Lagrange: a public park with an area of trees and a lake. (U.T.M. grid reference: EQ745554)
2. Reims - the canal, River Vesle and park between them on the stretch near the Basilica. (U.T.M.: EQ754551)
3. Berru - on the RD 380, 10 kilometres east of Reims: habitats included roadside verge, woodland and wet grassland. (U.T.M.: EQ824581)
4. Verzy - in the mountain of Reims 20 kilometres south-west of the city: this part of the regional park is a mixed deciduous wood particularly known for its strange twisted and ancient beeches called "les faux", which are centuries old. Habitats were deciduous woodland, disturbed ground near the car park and a



THE ENVIRONS OF REIMS AND LOCATION OF COLLECTING SITES

- small stream. Acid soil. (U.T.M.: EQ849435)
5. Champigny - on D751, 8 kilometres to the west of Reims: habitats included a wet poplar wood, stream and field edge beyond, roadside grassland, pond (recently dredged) and an area of disturbed ground (U.T.M.: EQ690589).
 6. West of Muizon, Courcelles-Sapicourt - on the south side of the N31, 11 kilometres west of Reims: habitats were deciduous woodland on sandy soil, grass ride and a marsh. (U.T.M.: EQ620583)
 7. Branscourt - 13 kilometres west of Reims: habitats included roadside, woodland and a quarry. (U.T.M.: EQ589588)
 8. Cormicy - Cauroy-les-Hermonville - 17 kilometres north-west of Reims: habitats were woodland and overgrown grassy ride, stream and roadside verges. (U.T.M.: EQ656680)
 9. Cormicy - 18 kilometres north-west of Reims: habitats were mixed and deciduous woodland with mossy banks and much dead wood. (U.T.M.: EQ635684)

MOLLUSCS FROM LOCALITIES AROUND REIMS

	Localities (see details in text)								
Land molluscs	1	2	3	4	5	6	7	8	9
<u>Pomatias elegans</u>		+				+	A		+
<u>Carychium minimum</u>					A				
<u>C. tridentatum</u>			A		A			A	
<u>Succinea oblonga</u>						+			
<u>Oxyloma pfeifferi</u> (= <u>O. elegans</u>)					A			+	
<u>Cochlicopa lubrica</u>		+	A	A	A	+			
<u>Columella edentula</u>			A		+				
<u>Vertigo moulinsiana</u>					+				
<u>Orcula (Sphyradium) doliolum</u>									A
<u>Pupilla muscorum</u>	+		+					+	
<u>Vallonia costata</u>		+	A		+			A	
<u>V. pulchella</u>					+			+	
<u>V. excentrica</u>	+		+		+			+	
<u>V. enniensis</u>						+			
<u>Acanthinula aculeata</u>					+			A	
<u>Ena obscura</u>			A						
<u>Punctum pygmaeum</u>					+				
<u>Discus rotundatus</u>	+		A	A	A	A	A	A	A
<u>Arion ater</u> agg.	A		A	A		A			A
<u>Arion circumscriptus</u> s.s.			A	+					
<u>A. silvaticus</u>	A		A	A				A	
<u>A. subfuscus</u>				A					
<u>A. distinctus</u>	A		A	A	A		A	A	A
<u>A. intermedius</u>				A	A	A		A	A
<u>Vitrina pellucida</u>			+		A		+	A	A
<u>Phenacolinax major</u>								A	
<u>Vitrea crystallina</u>					+	+			
<u>Aegopinella nitidula</u>	+		A	A	A	A		A	A
<u>Nesovitrea hammonis</u>			A		A				
<u>Oxychilus draparnaudi</u>	A		+	+	+	+	+	+	
<u>Zonitoides nitidus</u>					A				
<u>Limax maximus</u>									+
<u>L. cinereoniger</u>				A	A				
<u>L. (= Malacolimax) tenellus</u>				A					
<u>Deroceras reticulatum</u>	A	A	A		A	A		A	
<u>Euconulus fulvus</u>			A		A				
<u>Cochlodina laminata</u>			A	A				A	A

	Localities								
	1	2	3	4	5	6	7	8	9
Land molluscs continued									
<u>Macrogastra rolphii</u>								A	
<u>Clausilia bidentata</u>	+		A	A	A	+		A	A
<u>Bradybaena fruticum</u>	+				A	A	+	+	
<u>Candidula unifasciata</u>						+	+	+	
<u>C. gigaxii</u>					+				
<u>Cernuella virgata</u>		A			+				
<u>Helicella itala</u>		+			+			+	+
<u>Monacha cartusiana</u>		A			+			+	
<u>Perforatella incarnata</u>				A				A	
<u>Trichia plebeia</u>	+	A	A	A	A	+	+	A	
<u>Hygromia cinctella</u>			A		+				
<u>Helicodonta obvoluta</u>				A		+	+		A
<u>Cepaea nemoralis</u>			A		+	A	+	+	+
<u>C. hortensis</u>	+	A			A	A	+	+	
<u>Cepaea sp.</u>				+					
<u>Helix aspersa</u>	+				+				
<u>H. pomatia</u>					+			+	
Freshwater molluscs									
<u>Valvata cristata</u>		A			+				
<u>V. piscinalis</u>		A							
<u>Potamopyrgus jenkinsi</u>	A	+							
<u>Bithynia tentaculata</u>		+			+				
<u>Physa fontinalis</u>	A	A							
<u>P. acuta</u>	A								
<u>Lymnaea peregra</u>	A	A							
<u>L. palustris</u>	+				A				
<u>L. stagnalis</u>					+				
<u>L. truncatula</u>				A				A	
<u>Planorbis planorbis</u>					+				
<u>P. carinatus</u>		+							
<u>Anisus vortex</u>		A			A				
<u>A. leucostoma</u>		+			+				
<u>Bathyomphalus contortus</u>		A			A				
<u>Armiger crista</u>		+							
<u>Segmentina nitida</u>					+				
<u>Gyraulus albus</u>	A	+			+				
<u>Planorbarius corneus</u>		+			+				
<u>Ancylus fluviatilis</u>		+							
<u>Acroloxus lacustris</u>	A	+			+				
<u>Sphaerium corneum</u>		+			+				
<u>Pisidium henslowanum</u>		+							
<u>P. casertanum</u>						+			
<u>P. nitidum</u>		+							
<u>P. subtruncatum</u>		+							
<u>P. milium</u>		+							
<u>Dreissena polymorpha</u>		A							
Total numbers of species	21	30	23	20	48	19	11	28	14

Subsequent to our field excursion of November 1984, some live succineids were collected (by C.S.) from Champigny where they occurred in the grass by the side of the road, opposite the wood. On dissection of the reproductive system and the jaw

(using characters in Quick 1933 and Kerney and Cameron 1979) these proved to be Succinea putris, adding a further species to the list.

Eighty-two species of land and freshwater molluscs were found during four days of collecting around Reims. This is a rich area for molluscs and one of us (C.S.) has noted a total of 119 species for the area. While there is a good range of habitats, the large number of species is also explained by the geographical position of Reims, as molluscs with a distribution bias for the east, south and west of Europe can occur here. Those typical of the Continental region of eastern Europe include: Orcula (Sphyradium) dolium, Vallonia enniensis, Bradybaena fruticum, Perforatella incarnata, Helicodonta obvoluta and Helix pomatia. Species with a southern bias include Candidula unifasciata, Monacha cartusiana and Hygromia cinctella, while those of the western oceanic region include Candidula gigaxii, Phenacolimax major and Macrogastra rolpheii of the south-west and Arion intermedius of the north-west (Kerney and Cameron 1979), although there is now record of A. intermedius from Italy (Backeljau 1985).

Most of the species from Reims (Table 1) occur in Britain also, but some - Phenacolimax major, Macrogastra rolpheii, Monacha cartusiana, Helicodonta obvoluta and Helix pomatia - are more common and widely distributed in France. The species from Reims which are not found in Britain are: Orcula (Sphyradium) dolium, Vallonia enniensis, Candidula unifasciata, Perforatella incarnata and possibly Bradybaena fruticum which has not been recorded in Britain since 1920 (Kerney 1976).

Three species proved to be particularly interesting in extending the range of distribution as shown in the field guide (Kerney and Cameron 1979).

Vallonia enniensis

This snail is found mostly in Hungary, Czechoslovakia and the eastern part of Austria together with other scattered localities in eastern Europe. It is readily distinguished from V. costata by the ribs which are closer together and resembles a ribbed V. pulchellum. This is the first record of V. enniensis for France, and the most western point in its distribution. Shells of this species were found in a marsh at Courcelles-Sapicourt, near Muizon, the same type of habitat where it is known to occur in the rest of its range.

Certhia virgata

This is a southern species found in the Mediterranean region which extends up the western half of France to the British Isles. It has been known in Reims for most of this century although its early publication has been overlooked and it is well established in the area (Demaison, 1922). During November 1984 living colonies were found in the park between the canal and the river at Reims and it is common elsewhere (C.S.). This species likes disturbed ground and readily colonises roadsides, particularly if the vegetation is kept short.

Hygromia cinctella

A map of the distribution of this snail (Kerney and Cameron 1979) shows a limited range with a coastal bias in the south of France and a small population established on the coast of South Devon, which has a milder climate than the rest of Britain. Hygromia cinctella has not been found before in Reims, and this record represents its second most northern locality. The snail was found at the edge of a wood at Berru (living specimens) while empty shells were found at Champigny. One of us (C.S.) has found it in other localities including gardens in Reims, so it appears to be well established.

Conservation

In France, where snails are popular as food, the larger species Helix aspersa and H. pomatia are now protected. It is forbidden to take the juveniles and also the adults of these species until the beginning of July, which gives them an

opportunity to breed. There is a fine of about £1 per specimen if caught taking them in the prohibited months or as juveniles. However, many people do not respect the dates of the closed season. When out in France with a polythene collecting bag and asked what you are doing, do not innocently announce that you are merely looking for snails as that will immediately arouse suspicion. One of us (C.S.), as a lone conchologist, was on a field meeting of the local natural history society when the members of the party were questioned on their activities. Fortunately most of them were botanists, so their reply "making lists of the plants" satisfied the warden and provided cover for the snail enthusiast, who incidentally was only taking small species for study and not for supper afterwards!

The land molluscs from Reims are covered in A Field Guide to the Land Snails of Britain and North-west Europe (Kerney and Cameron 1979) and we have used the same nomenclature in the list. The freshwater snails are covered in The Illustrated Guide to Molluscs (Janus 1982). A standard French reference is Germain 1930-1 - Faune de France which gives information on distribution, but it is not up-to-date. In addition there is a bibliography on the distribution of the different species of snails in France (Bouchet and Heros, 1981) but it omits an article on the snails of Reims (Robert, 1932 and 1933).

We are grateful to Dr. M. P. Kerney for checking various identifications (including Pisidium) and for reading and commenting on the manuscript.

June Chatfield (1) and Colette Stevanovitch (2)

1. The Oates Memorial Library and Museum and the Gilbert White Museum, The Wakes, Selborne, Alton, Hampshire, GU34 3JH
2. [REDACTED], 51100 Reims, France

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PRODUCERS AND USES OF SHELLS. THE BLOOD-MOUTH, RED-MOUTH OR STRAWBERRY CONCH,

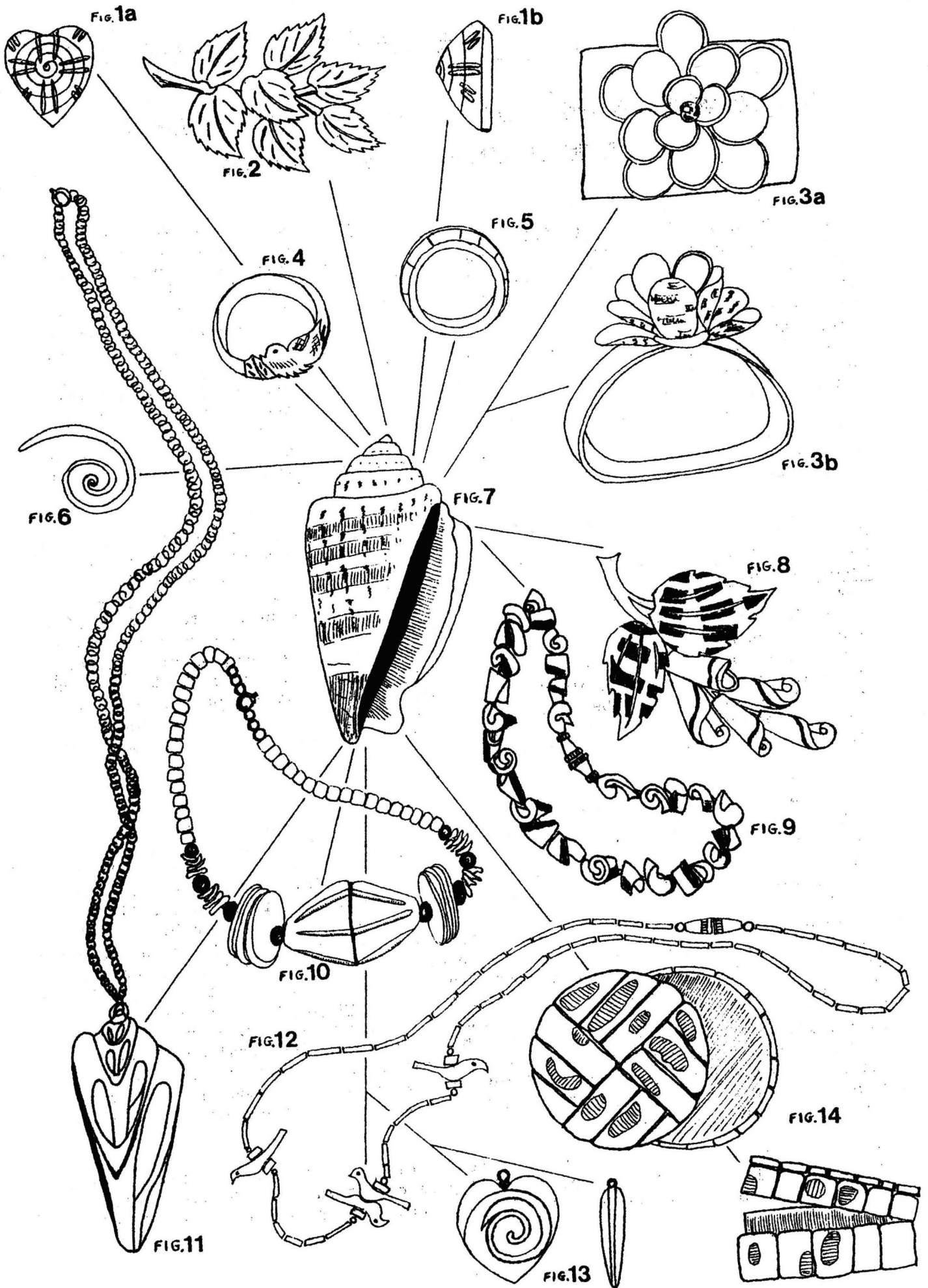
STROMBUS (CONOMUREX) LUHUANUS LINNE 1758

For many years now I have been collecting and eating British marine molluscs especially when a) I had no family and therefore ties and b) I could travel easily and cheaply around the country. I look back on those times and the people that I met with a great deal of pleasure, even nostalgia. But unfortunately times change and I now have a family and all this entails and it has also become much more expensive relatively to travel all over the country with them regularly. So when this happened a few years ago I decided to look around for something that I could study and even collect related to shells locally. Foreign shells were not a good subject because in Cambridge there was not a shell shop and British terrestrial molluscs had never really caught my interest. But what there was were lots of little second-hand and antique shops and I noticed that they often had cheap, sometimes damaged, more often than not complete, shell artifacts often old sometimes modern. So I started to collect shell artifacts, an artifact being defined as 'a product of human art and workmanship'.

Over the years I have accumulated quite a sizeable collection of artifacts and at the same time the shells from which they were taken. One of the first shells that I obtained and that most readers will recognise is the very attractive Strombus luhuanus L. (Fig.7). This 7 cm. robust mollusc lives in the West Pacific from Japan in the north, down to the Philippines, along Indonesia to East Australia across to Fiji and around to the Line Islands. The shell has a single very long body whorl and is capped by a very heavy short, normally smooth, whorled spire. The outside colour is best described as a marbled brown in a zigzag pattern. The lip exhibits the deep stromboid notch from which the family Strombus takes its name. The columella is a beautiful chocolate brown which offsets a salmon sunset coloured aperture. It is this rose coloured aperture that tends to be used mostly for the various artifacts made from the shell.

What is interesting about the shell artifact trade is that when a shell is first used for making souvenirs, jewellery, etc., it is often only part of the shell, usually the most attractive part for obvious reasons, that is used. So that the first artifact that I found in 1976 was a brooch (Fig.2) made up of flat leaf shapes made out of the lips, probably from several shells. The second item bought in 1978 was a very attractive pill box (Fig.14) covered in pieces of the lip smoothed and shaped to fit one another perfectly. This was followed by a small necklace (Fig.12) bought for my wife at Miss Selfridge in 1979 and made up of beads separating small beautifully carved pink birds. In 1981 I picked up in Harrods a Capiz or Window Pane Oyster shell serviette ring made in the Philippine Islands for which pink petals had been cut out of the lip of S. luhuanus and arranged as a flower as in Figs. 3a and 3b. I then found in 1982 a ring (Fig.4) made from the body whorl of the shell with the middle whorls removed. The local craftsman cleverly using the colouring in the shell to highlight the carved bird feature on one side. Another ring (Fig.5) came into my possession while down in Devon staying with Mr. and Mrs. Train. This time small square pieces of the pink lip had been inlaid into a brass base.

Now what is interesting about the above items is that only the rose coloured lip and anterior part of the shell was being used. It was in 1984 that I first found items coming onto the market which were using the parts of the shell left



over from the original processes. The first item was a very colourful necklace (Fig.9) which used the siphon end of the shell which was cut away when the lip was being used for its pink colour. The small pieces of pink lip and dark brown columella made a very bright and attractive necklace. This was followed by a brooch found in a souvenir shop on Southend seafront using the internal spiral (Fig.8) and putting several together to form a floral spray with a couple of carved shell leaves. The second clever use of waste shell was from the apex, the heaviest and thickest part of the shell, which the natives grind smooth and then stick to a similarly ground piece from another shell, the two pieces making a very attractive and heavy bead (Fig.10). This summer I also found halves shaped into hearts (Fig.1a and 1b) with a piece of mother-of-pearl stuck onto the flat side to tidy up and hide the remains of the internal spiral. Again the spire can be rubbed down producing a beautiful pale pink heart-shaped hanger or pendant (Fig.13).

Lastly one shouldn't forget the uses made of the whole shell and sections (Fig.6 and 11) both for jewellery, for decorating boxes, ink well stands, mirror and picture frames. The Victorians and people before them also used them for decorating roundels, rooms of houses such as the 'Octagon' in 'A la Ronde' at Exmouth which I visited with Joyce Train and my family in October 1983, gardens such as those at the Shell Gallery at Rosendaal near Arnhem, Holland, pavilions such as that at Goodwood Park, Sussex and churches like the Little Chapel at Les Vaux Belets, Guernsey.

John E. Llewellyn-Jones

CONSERVATION PUBLICATIONS

It is intended in forthcoming Newsletters to include brief reviews of books and booklets of interest to those wishing to understand more about conservation matters.

(1) Nature Conservancy Council Booklets

The N.C.C. publish an excellent series of booklets (which many members are undoubtedly familiar with) dealing with the conservation and management of a variety of habitats. These booklets describe the history and distribution of each habitat, together with a description of the dominant and typical forms of wildlife to be found in each. The particular threats to each habitat are explained, together with advice for their management. Each title is illustrated with colour photographs. The available titles include -

- E2.8 Chalk grassland: its conservation and management
- E2.9 The conservation of coastal cliffs and scarps
- E2.10 The conservation of coastal shingle
- E2.11 The conservation of sand dunes
- E2.12 The conservation of farm ponds and ditches
- E2.13 The conservation of semi-natural upland woodland
- E2.14 The conservation of lowland broadleaf woodland
- E2.15 The conservation of limestone pavement
- E2.16 The conservation of peat bogs
- E2.17 The conservation of mountain and moorland
- E2.18 The conservation of fens and marshes
- E2.19 The conservation of rivers
- E2.20 The conservation of lakes
- E2.21 The conservation of estuaries

These booklets can be obtained from: Interpretative Branch, Nature Conservancy

Council, Northminster House, Peterborough, PE1 1UA. You are advised to check prices before ordering. They were about 50p per title.

- (2) Crisis in Conservation by Charlie Pye-Smith and Chris Rose. Pelican Books, 1984. The following review appeared in the Co En Co publication Habitat (Vol. 20, No. 9).

'Today we are too late to save the countryside that existed ten years ago. In ten years' time will we say the same?' Not if the authors of this excellent, hard hitting and revolutionary contribution to the conservation debate have their way. The main thrust is to persuade the environmental movement that it has to get to grips with some basic political problems which demand dramatic changes in the workings of 'vested' interests in the countryside. A good read and stimulus to action for those who like to get involved. Some painful facts on all sides are exposed!

REPORT OF THE FIELD MEETING HELD ON 28th. SEPTEMBER 1985 -

'HUNTING THE CHEESE SNAIL'

Fifteen members and friends met on the morning of 28th. September at Glatting Farm in the small West Sussex village of Sutton, which nestles below the wooded scarp slopes of the South Downs. The party spent the day recording the snails and slugs found at Glatting Hanger (a "hanger" on the South Downs usually refers to a steeply wooded slope). This section of woodland which is in the centre of the Bignor Hill S.S.S.I., consists predominantly of ash with smaller numbers of beech and yew trees. The woodland floor is mainly covered in a carpet of the calcicole Dog's Mercury (Mercurialis perennis), although smaller areas of bare leaf litter and open rock rubble are present. Almost everywhere the woodland floor is covered with fallen and rotting timber.

Despite the bright sunshine that had earlier greeted some members at Haslemere station, an early autumn mist shrouded the hanger for most of the day. Within minutes of entering the hanger living specimens of the cheese snail (Helicodonta obvoluta) were discovered beneath rotten ash logs. The abundance of this species at Glatting is surprising. Beneath some logs about 1 m in length as many as thirty living specimens were found. The wealth of fallen timber at Glatting Hanger seems likely to have created particularly favourable conditions for this snail, which in Britain today is restricted to a small number of downland woods in West Sussex and East Hampshire.

As well as H. obvoluta the following rich molluscan fauna was recorded during the day:

<u>Pomatias elegans</u> (Müller)	<u>Oxychilus cellarius</u> (Müller)
<u>Acicula fusca</u> (Montagu)	<u>Milax budapestensis</u> (Hazay)
<u>Carychium tridentatum</u> (Risso)	<u>Limax maximus</u> Linnaeus
<u>Cochlicopa lubricella</u> (Porro)	<u>Limax marginatus</u> Müller
<u>Ena obscura</u> (Müller)	<u>Deroceras laeve</u> (Müller)
<u>Punctum pygmaeum</u> (Draparnaud)	<u>Deroceras reticulatum</u> (Müller)
<u>Discus rotundatus</u> (Müller)	<u>Deroceras caruanae</u> (Pollonera)
<u>Arion ater</u> (Linnaeus)	<u>Euconulus fulvus</u> (Müller)
<u>Arion subfuscus</u> (Draparnaud)	<u>Cochlodina laminata</u> (Montagu)
<u>Arion circumscriptus</u> Johnson	<u>Macrogastrarolphi</u> (Turton)
<u>Arion hortensis</u> Férussac ("Type A")	<u>Clausilia bidentata</u> (Ström)
<u>Arion intermedius</u> Normand	<u>Trichia striolata</u> (C. Pfeiffer)
<u>Vitriina pellucida</u> (Müller)	<u>Trichia hispida</u> (Linnaeus)

Vitrea crystallina (Müller)
Vitrea contracta (Westerlund)
Aegopinella pura (Alder)
Aegopinella nitidula (Drapardaud)
Oxychilus alliarius (Miller)

Arianta arbustorum (Linnaeus)
Helicigona lapicida (Linnaeus)
Cepaea nemoralis (Linnaeus)
Helix aspersa Müller

[The following were only recorded as dead shells - Vallonia excentrica Sterki, Cecilioides acicula (Müller), Helicella itala (Linnaeus), Monacha cantiana (Montagu), Cepaea hortensis (Müller)]

In addition to recording Mollusca the ever intrepid and enterprising Adrian Rundle was also recording centipedes, millipedes, pseudoscorpions and woodlice. His list included the rather rare and local harvestman Anelasma cephalus cambridgei and the uncommon centipede Strigamia crassipes. The haybarn at Glatting Farm was rather exciting producing the uncommon Dinocheirus panzezi and the much rarer pseudoscorpion Allochernes powelli, almost certainly a new vice-county record.

As we returned to Glatting Farm at the end of the afternoon the mists had still not completely cleared. We had, however, shared a thoroughly enjoyable day having encountered the 'cheese snail' in abundance!

M. J. Willing

A 19th. CENTURY RECORD OF LIMAX MACULATUS IN THE BRITISH ISLES

Limax maculatus (Kaleniczenko) (= L. grossi Lupu, L. pseudoflavus Evans) was recognised in the British Isles as a species distinct from Limax flavus only in the 1960s (J. Conch., Lond. 29 [1976], p. 1; 31 [1982], p. 75). Like L. flavus, it may be an introduced species, but as slugs leave poor fossils this is by no means certain. In view of its abundance in Ireland today it is curious that Phillips, Stelfox and other early 20th. century Irish workers so rarely recorded 'flavus', especially from woods where L. maculatus is now common, leading to the suspicion that the spread of the species in the British Isles is a very recent one. A late Victorian record from England is therefore of interest.

In the manuscript notebooks compiled by J. W. Taylor and W. D. Roebuck in the preparation of Taylor's Monograph, and now preserved in the British Museum (Natural History), are some careful pencil drawings by Charles Ashford (1829-1894) of dissections of six specimens of 'flavus' from Christchurch, Hampshire, made on the 6 October 1884. The genitalia are clearly those of L. maculatus and not L. flavus, showing the characteristic simple C-shaped penis and the spermatheca duct arising from its base (and not from the oviduct, as in L. flavus). Elsewhere among the notes is an entry in Roebuck's handwriting recording that Ashford's Christchurch 'flavus' were 'dark in colour' (as is typical of adult L. maculatus). Roebuck assigned these specimens to the 'var. umbrosa' of flavus.

Unlike in Ireland, L. maculatus appears to be scarce in England, the present record being the first from the south of the country. The true position is however still unclear owing to confusion with L. flavus. Any adult 'flavus' of unusually dark colour (juveniles of both flavus and maculatus are dark) should be dissected.

M. P. Kerney

THE COUNCIL OF THE CONCHOLOGICAL SOCIETY has recently represented its views to the Government on two matters.

(1) THE AGRICULTURE BILL

The forthcoming Agriculture Bill (which entered the committee stage in the New Year) is to include the designation of a number of Environmentally Sensitive Areas (E.S.A.s).

From 56 potential British E.S.A.s, 13 were shortlisted by The Countryside Commission and The Nature Conservancy Council, to be submitted to The Ministry of Agriculture, Fisheries and Food. [These include the South Downs, parts of the Pennines and the Peak District, Breckland, the Norfolk Broads, the Suffolk river valleys, Dedham vale, the Test valley, the Somerset Levels, West Penwith, the Welsh Marches, Clun and Radnor, Angelsey, the Lleyn peninsula, Myndd Elenydd in the Cambrian mountains. Areas will also be shortlisted in Scotland.]

In E.S.A.s farmers may get M.A.F.F. grant aid to farm in such a way that they preserve or improve the environment. For example, on the South Downs, farmers might be subsidised for returning marginal land back from mechanised 'chemical' cereal farming, to more traditional sheep grazing on permanent open grassland.

In January the M.A.F.F. made cuts to this plan by only setting aside £6 million for its implementation and probably reducing the list of E.S.A.s to six. The Council wrote to both the M.A.F.F. and The Department of the Environment to express its concern at this move, stating that the proposed levels of grant aid were disproportionately small when compared to the huge sums currently being spent producing and storing agricultural surpluses (an all-party parliamentary committee in a report published 26/2/86 denounced as indefensible the E.E.C. farming system which has led to the storage of more than 15 million tons of surplus food). The Council felt that many environmentally valuable areas that may be excluded from the Agriculture Bill, may be destroyed. Their designation to E.S.A.s in future years might be too late if the areas were already destroyed.

(2) SITES OF SPECIAL SCIENTIFIC INTEREST

In May 1985 a landowner at West Mersea, Essex, sprayed herbicide onto a rich area of ancient grassland (containing over 40 species of wild flowers and including about half of the Essex population of green-winged orchids, the rare Mersea pea and adder's-tongue fern). The local County Trust and the Nature Conservancy Council (N.C.C.) tried to negotiate protection, but when the owner was informed that the meadow was worthy of S.S.S.I. status he initiated his spraying action, managing to overtake a N.C.C. "stop order" whilst the papers were on their way to the D.o.E.. Eventually the Secretary of State for the Environment signed a Section 29 order protecting the meadow from further damage. Later assessments of the damage to the meadow showed that the spraying had not produced any permanent damage.

In February 1986, the D.o.E. seemed to change its position with regard to this S.S.S.I. and revoked their earlier conservation order. The Council of the Conchological Society felt that this action had possibly wide-ranging implications for S.S.S.I.s and so it included these views in a recent letter to The Rt. Hon. Kenneth Baker, M.P., Secretary of State for the Environment. The letter stated -

"The Conchological Society of Great Britain and Ireland views with deep concern the recent decision by the D.o.E. to revoke a conservation order on an S.S.S.I. at West Mersea in Essex. This action could be construed as an attempt by the Government to downgrade S.S.S.I.s so that those with development potential might more easily be exploited or commercialised.

It is understood that the D.O.E. has argued in this case that, despite being an S.S.S.I., a site might not justify a conservation order if it is not of "national importance". We believe that the national network of about 4,000 S.S.S.I.s form an integrated network which provides the very minimum reservoir necessary to ensure that Britain retains a representative variety of habitats.

This recent action by the D.O.E. in relation to the West Mersea site is bound to severely weaken the integrity of the S.S.S.I. system suggesting that the Government (despite its support for the Wildlife and Countryside [Amendment] Bill, which ironically contains clauses designed to safeguard prospective or renotified S.S.S.I.s) is not genuinely committed to a policy that will ensure the continuation of these sites.

There seems little hope for the bulk of Britain's remaining wildlife habitats that lie outside the S.S.S.I. and Nature Reserve systems if the Government is not prepared to demonstrate its wholehearted support for these sites which are the corner stone of the N.C.C.s conservation strategy."

Since this letter was sent, the B.B.C. Wildlife Magazine (Vol. 4, No. 3, p. 140-141. March 1986) has revealed that an absolute minimum of 516 S.S.S.I.s have been destroyed or damaged since the 1981 Wildlife and Countryside Act was passed. The magazine states, "among the many disappearing S.S.S.I.s, more than 150 have been, or will be damaged by roads or other operations where planning permission has been granted. It seems that the Government's own strategy for conserving at least a skeleton of our natural heritage - the S.S.S.I. system - is being contemptuously shouldered aside, not by private entrepreneurs, but by local and central Government departments."

THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

The 987th. (Ordinary) Meeting held on 14th. December 1985 at B.M.(N.H.)

In the Chair: Mr. T. Pain with 39 members and friends present

Nominations and elections: 1 junior member

Fountain, Mark, [REDACTED], Rayleigh, Essex, [REDACTED]

Lecture: 'Natural History of Aldabra: Camptonotus in the toothpaste'
by A. D. Seccombe

Papers read: 1. 'An undescribed Leiostyla (Gastropoda, Pupillidae) from Madeira'
by D. T. Holyoak and M. B. Seddon
2. '(An undescribed species of Sphaerium (Bivalvia, Sphaeriidae) from the Norwich Crag (Early Pleistocene) of East Anglia' by
D. T. Holyoak and R. C. Preece

Announcements and correspondence: the book to be auctioned was unsold, and held over to another occasion.

The secretary read two notices from people requesting help. Mr. John Miller from the B.M.(N.H.) requested help with obtaining the use of any live material or information concerning turrid populations at intertidal sites around Britain. Mr. I. J. Enlander from the Fisheries Research Laboratory in Coleraine requested help with information about Nuculidae, Scrobiculariidae, juvenile Pholadidae, and Thraciidae.

Mr. Gascoigne recorded his sincere thanks to the Hon. Treasurer Mrs. Fogan for her kind help and advice. This resulted in the John Murdoch Trust (Royal Society of Edinburgh) giving him a generous annual grant.

Any other business: Miss Fogan gave her thanks to all who sent her Xmas cards. A cheque would be going to a charity (the Society) in lieu of sending cards. Mrs. Fogan reported that Mr. John Fryer who distributes N/L and deals with new members is now retiring from the post. In view of his most reliable and conscientious work for the Society, a vote of thanks was passed.

The meeting closed at 5.16 p.m.

Exhibits

R. P. Scase	Map of Indian Ocean Floor showing position of Aldabra
D. R. Worth	Bivalves from the Weymouth area
T. Pain	The subfamily <u>Astraeinae</u> Davies, 1933 (Archaeogastropoda-Turbinidae) in Australasian waters
B. Verdcourt	Mr. Nagg's recent paper on British <u>Trichia</u> SEM's of radula of <u>Ovatella myosotis</u>
M. B. Seddon	Two <u>Macularia</u> sp. from S.E. France
R. C. Preece	<u>Sphaesium icenicum</u> sp. nov. Holotype and paratype, Norwich Crag
J. F. M. de Bartolomé	<u>Hemicycla</u> from Fuerteventura and Lanzarote Canary Islands
A. Seccombe	Some marine gastropods from Aldabra
C. P. Palmer	Juveniles and growth series shown at the Northampton 'Small Marines' meeting
J. D. Nunn	Information for members
D. T. Holyoak	<u>Punctum pusillum</u> and some species confused with it: Yugoslav clausiliids; French Clausiliidae Atlas
C. J. Chibnall	An assortment of 'South Seas' bivalves
E. Sándor	Family Veneridae Rafinesque, 1815

The 988th. (Ordinary) Meeting held on 18th. January 1986 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 43 members and friends present

Death of a member: the death of Miss M. Jacques, member since 1979, was announced. The death of Mrs. Raffray, wife of the previous Treasurer was announced.

Nominations and Elections: 2 full members and 1 transfer to full membership

Full members

Everett, C.J., [REDACTED], Farnborough, Hampshire, [REDACTED]

Walker, Dr. T.M., [REDACTED], Reading, Berkshire, [REDACTED]

Transfer from junior to full membership

Wilkinson, Stephen, [REDACTED], Monkstown, Newtonabbey, [REDACTED], N. Ireland

Lecture: 'Trichia striolata' by Mr. G. Osborn

Any other business: there was an auction of books for the benefit of the Society's funds.

The treasurer requested that all those who had not done so, should promptly pay their subscription.

It was announced there was a mistake in the new programme card. The meeting in December is on Saturday 13th. December, not the 14th.

The meeting closed at 5.00 p.m.

Exhibits

G. Osborn	<u>Trichia striolata</u>
J. Nunn	Shell art from China Information for members
T. Pain	Genus <u>Parancistolensis</u> Azuma, 1965 (Type by O.D. <u>Japellion kinoshitai</u> Kuroda, 1931)
D. C. Long	Shells from Canon L. W. Grensted's collection; Book: Coastal invertebrates of Victoria
D. T. Holyoak	N. African Helicidae - <u>Massglaea</u> and <u>Otala</u>
M. Seddon	<u>Helix aspersa</u> of Europe and N. Arica
M. Mitchell	Chitons and Gastropods from the USSR
J. Chatfield	East Hampshire Hangers Project <u>Ashfordia granulata</u> newspaper cutting and specimens Recently published books: 'Seashells of the Sultan Qaboos Nature Reserve at Qurm' by K. Smythe and 'The Encyclopedia of Underwater Life' published by Equinox
J. Light	<u>Buccinum undatum</u> with <u>Anomia ehippium</u>
T. Gascoigne	Lemche's Monograph
R. W. Morrell	New shell stamps from the Falkland Islands - not issued yet!
D. B. Worth	<u>Helix aspersa</u> and <u>Helix pomatia</u>

The 989th. (Ordinary) Meeting held on 15th. February 1986 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 34 members and friends present

Nominations and Elections: 4 full members

Bristol Regional Environmental Records Centre, Natural History Section, City of Bristol Museum and Art Gallery, Queens Road, Bristol, BS8 1RL

Caldara, Dr. M., Dip. di Geologia e Geofisica, Campus Universitario, Via G. Fortunato, 70125 Bari, Italy

Reynolds, Ms. J.E., [REDACTED], Bow, London, [REDACTED]

Richardson, W., [REDACTED], Dalkeith, Midlothian, Scotland, [REDACTED]

Transfer to other membership category: Junior to Full membership

Bayliss, Miss S., [REDACTED], Burrow Hill, Chobham, nr. Woking, Surrey

Lecture: 'Arabian Land Shells' by Dr. P. Mordan

Announcements and correspondence: Mrs. Light announced that the latest two supplements to the Journal of Molluscan Studies (parts 8 & 9 of Prosobranchs of Great Britain & Denmark by Fretter & Graham) would soon be available to those interested. The delay in publication was due to late corrections to the proofs.

The secretary read a letter from a collector in France requesting British species of land mollusca. Anyone who could help was requested to contact the secretary. The treasurer reminded the meeting that those members whose subscriptions were not paid in full would not be able to vote.

The meeting closed at 5.17 p.m.

Exhibits

E. Sándor	Family Naticidae Gray 1840
J. Nunn	A book sent for review to the Society Information for members
M. P. Kerney	Atmospheric pollution affecting land snail distributions
D. Holyoak	<u>Truncatellina</u>
T. Pain	The American 'Whelk' <u>Neptunea lyrata</u> (Gmelin 1791)

GENERAL NOTES

A SHELL CURE FOR SNAKE-BITE

"Some Nepalese claim that wizards can cure snake bites with the aid of three cowrie shells. The wizard first throws all three shells towards the place where the snake was last seen. Two shells miraculously return to his hand. The third sticks to the back of the particular snake's head. This snake then bites the victim for a second time, in the same place as before. But this time, because of the presence of the magic cowrie shell, the snake extracts the poison instead of inserting it.... The wizard then recalls the snake and places its head in a jar of milk. The snake now vomits back the medicine and dies. The man recovers. I cannot claim to have witnessed such an event. I never saw a wizard."

P. Pitt: Surgeon in Nepal (1970) (from Mrs. M. Fogan)

SNAILS HELP TO DEFEAT PLANNING APPLICATION

A planning application to build two bungalows with garages on a river flood meadow at Alton was defeated recently with the help of a snail. A report of this molluscan triumph appeared on the front page of The Alton Herald (5th. July 1985). It was explained that East Hampshire District Council planners had rejected the plan because of the natural wildlife and amenity value of the site, which is the habitat of the snail Ashfordia granulata.

PUBLICATIONS RECEIVED

Note. All items mentioned will be held by Mr. T. E. Crowley for three months after issue of this Newsletter, so that any members who wish may borrow them during this period.

PORCUPINE NEWSLETTER, Vol. 3, No. 5 (December 1985)

In the "Marine Laboratories" series there is a description of the history and work of the University Marine Biological Station at Millport and a centenary appeal from the Director, supported by Queen Elizabeth the Queen Mother, for the construction of a lecture theatre and to widen the basis of research.

BULLETIN OF THE MALACOLOGICAL SOCIETY OF LONDON, No. 5, October 1985

This issue terminates at 1946 T. E. Crowley's History of the Society. The postwar story is to be taken up by Prof. A. Graham in the next issue.

Dave Raffaelli describes in detail the malacological research being prosecuted in the Zoology Dept. of Aberdeen University, with a listing of recent publications; and a paper "Morphology and Function in the molluscan family Pectinidae" by Dr. E. Sándor is reproduced. This paper was given at the joint meeting with the Conchological Society of G.B. & I., November 1984.

Forthcoming activities of the American Malacological Union are listed.

T.E.C.

INFORMATION WANTED

The conchological collections of the Archer brothers (Francis junior 1839-1892 and Samuel 1836-1902) are almost all in the Birmingham Museum except a small collection of Singapore shells bequeathed to the late J. R. le B. Tomlin and which eventually reached the National Museum of Wales. I believe there is also Archer material in Leeds Museum.

However, a few years before 1965 a collection of shells described as "The Archer Collection and containing Singapore shells and made by Staff-Surgeon Sam

Archer" was offered for sale to a friend of mine (the late W. Stevens-Jones of Birkenhead, Cheshire) by a Mr. Fraser of Ramsbury, Wilts. My friend did not wish to buy the shells and no more information was forthcoming.

Any information as to the fate or present location of this Archer material would be welcomed by Nora McMillan, Dept. of Invertebrate Zoology, Merseyside County Museums, Liverpool.

HELICELLA ITALA (L.) FROM CLWYD

The Atlas of Non-Marine Mollusca shows very few records for north Wales. A population was discovered at Burley Hill quarry, near Maeshafn grid ref. 33/203594 on 31.8.1985. The site is adjacent to the access road to the quarry and seems safe from destruction at least in the short-term.

Dr. I. D. Wallace, Merseyside County Museums, Liverpool

EXTRACTS

"National Geographic Magazine" Vol. 152 No. 4 October 1977

"Oases of Life in the Cold Abyss", by John B. Corliss & Robert D. Ballard, about the research submersible Alvin's visit to the Galapagos Rift, west of Ecuador, where there are active hydrothermal vents in the deep sea.

"Clams! Hundreds of them covered the lava in a dense blanket never before seen in the deep."

Vol. 156 No. 5 November 1979

"Return to Oases of the Deep", by Robert D. Ballard & J. Frederick Grassle.

"Vent clams grow four centimeters a year, five hundred times faster than a small deep-sea cousin which can live as long as a century."

"Galapagos clams have numerous large and yolky eggs, but we have not yet found how the clams disperse."

"The meat inside these clams is startlingly red, a rare sight in clams. Their haemoglobin has an unusually high affinity for oxygen possibly an adaptation to periods of low oxygen."

There are coloured photographs of the clams and mussels, and of the volcanic activity.

"Inactive vents ringed by dead clams suggest oases are short-lived phenomena."

Betty M. Smith

NATURAL HISTORY BOOK SERVICE LTD., 62 Tritton Road, London, SE21 8DE, telephone 01-761 5969. Catalogues issued listing numerous books on all natural history subjects with a directory of societies at the back. All enquiries welcome.

CONCHOLOGICAL SOCIETY OF G.B. & I. Annual General Meeting

At the A.G.M. on 15th. March last, the following new members of Council were elected: Mr. I. J. Killeen, Dr. C. R. C. Paul, Dr. A. J. Rundle, all other Council members and Officers were re-elected.

THE CHANNEL TUNNEL - WILDLIFE RESEARCH

The Kent Trust for Nature Conservation is organising visits to vulnerable areas threatened by the Channel Tunnel development and is anxious to co-operate with other societies and clubs. The Kent Field Club plan to visit Asholt Wood on 19 October and the British Mycological Society will go there on 1/2 November. For information and liaison contact James Teacher, [REDACTED], Maidstone, Kent, [REDACTED]. Telephone [REDACTED].

COPY DATES FOR NEWSLETTER CONTRIBUTIONS

Copy for the March issue should reach me before 6th. January

" " " June " " " " " 6th. April

Copy for the September issue should reach me before 6th. July
" " " December " " " " " 6th. October

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, c/o British Museum (Natural History), Cromwell Road, London, SW7 5BD. 14 April 1986. ITZN 11/5 A.N.(S.) 137
The Commission hereby gives six months notice of the possible use of its plenary powers in the following cases, published in the Bulletin of Zoological Nomenclature Vol. 43, part 1 on 9 April 1986, and would welcome comments and advice on them from interested zoologists. Correspondence should be addressed to the Executive Secretary at the above address, if possible within six months of the date of publication of this notice.

Case No. 2479 Ammonites perarmatus J. Sowerby, 1822 (Cephalopoda, Ammonoidea): proposed exemption from the Principle of Homonymy.

872 Clausilia Draparnaud, 1805 (Mollusca, Gastropoda): proposed correction of Opinion 119.

The following Opinions have been published by the Commission in the Bulletin of Zoological Nomenclature, Vol. 43, part 1 on 9 April 1986.

Opinion No.

1370 (p.17) Neadmete okutanii Petit, 1974 designated as type species of Neadmete Habe, 1961 (Mollusca, Gastropoda).

1372 (p.21) Donax hanleyanus Philippi, 1847 (Mollusca, Bivalvia): conserved.

1375 (p.27) Glossodoris Ehrenberg, 1831, Hypselodoris Stimpson, 1855 and Chromodoris Alder & Hancock, 1855 (Mollusca, Gastropoda): conserved.

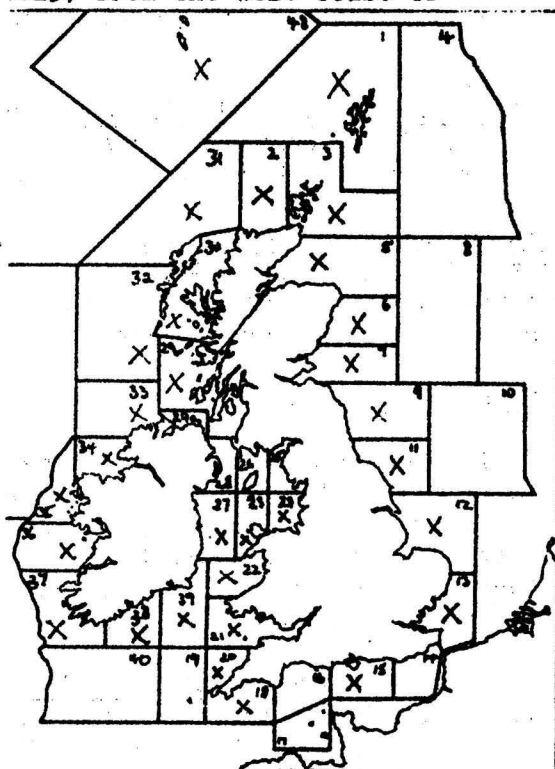
1376 (p.30) Cuspidaria (Rhinoclama) adamsi Morgan & Heppell, 1981 designated as type species of Rhinoclama Dall & Smith, 1866 (Mollusca, Bivalvia).

The Commission regrets that it cannot supply separates of Opinions.

P. K. Tubbs, Executive Secretary

I AM PLEASED TO ANNOUNCE that the Council of the Society has conferred Honorary Membership on Mrs. Nora F. McMillan, M.R.I.A.

WANTED ON LOAN: Chlamys varia (L. 1758). Recently I have been looking at specimens of C. varia in my collection and making comparisons in the form of rib counts and measurements with Chlamys nivea (Macgillivray, 1825) from the west coast of Scotland. I would now like to extend my study further by including data from specimens of C. varia from as many British and Irish Sea Areas as possible. An X on the accompanying map indicates a Sea Area from which I have very few or no specimens to study. I would particularly like to look at C. varia from Sea Areas 2, 29, 30 and 37 as well as specimens from any Area with a rib count of more than 38. However, specimens from all marked Areas are needed. Complete specimens would be preferable in order to include a measurement for inflation but single valves would also be useful. Any specimens loaned to me can be returned promptly if necessary and I am willing to meet senders' postage costs. I shall be very grateful to any members who can help with my request. Jan Light, 88 Peperharow Road, Godalming, Surrey, GU7 2PN



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COLLECTORS IN EAST AFRICA - 12. A. LE ROY

Mgr. Alexandre Le Roy (1854-1938)

The name Le Roy turns up frequently in J.R. Bourguignat's work on East African molluscs (1889); I had also come across it occasionally whilst working on various families for the Flora of Tropical East Africa, usually on specimens actually bearing the numbers of Père Sacleux (1856-1939) well known for his interest in East African botany and who later became a professor at the Muséum National d'Histoire Naturelle. I could find almost nothing concerning Le Roy in the English or even French works on natural history collectors and I turned to my omniscient friend Dr Heino Heine in the Laboratoire de Phanérogamie of the Muséum. He gave me some basic facts and also references to extensive obituaries and how to trace these. I wish to profoundly thank Rev. Père Bernard Noël C.S.Sp. and Rev. Father W. Wilfrid Gandy C.S.Sp. respectively head librarian and archivist in France and archivist of the English Province of the Congrégation du Saint-Esprit (Congregation of the Holy Ghost or more familiarly Holy Ghost Fathers) for sending me photostat copies of obituaries; Father Gandy, who had known Mgr. Le Roy well in his student days, talked to me about him and also showed me some of his works when I visited the provincialate of the Fathers in Bromley.

Monsieur Alexandre Le Roy, Archeveque titulaire de Carie, Supérieur Général de la Congrégation du Saint-Esprit was a most remarkable man, one of 'inlassable activité' as one of his obituary writers described him. He was born on the 19th January 1854* in Normandy at Saint-Sénier de Beuvron in the diocèse de Coutances Manche, but a stone's-throw away from the border with Brittany, but he always considered himself a Norman. It was a region of small fields; small farms and many forests traversed by small rivers and innumerable slopes; neither a rich nor a poor area but one where honesty, thrift and religion were the basis of life. On his mother's side he had a famous ancestor Despréaux called Tranche-Montagne, lieutenant of Boisguy, faithful to the white cockade. On the other side a grandfather known as 'Jambe de Bois' a republican always doing good without seeking reward, had a great influence and told him inexhaustible stories. His leaning towards liberal ideas in politics throughout his life probably stemmed from this early association. As a youngster although a good scholar he had a love of pranks and escapades, as for example when he and another youth set off to find the source of the tiny stream Beuvron; after a long struggle over numerous hedges and with their breeches torn they returned hours later tired out and hungry to angry mothers. He had a taste for personal research and a need to understand things which never left him.

His education continued at a small college at Saint-James the chief town of the area. He soon revealed a disconcerting ability in all subjects save perhaps

*Fournier gives 1851 in error

mathematics and a rather unappreciated penchant for drawing caricatures! Later at the small seminary at the Abbaye Blanche his literary education progressed. Plays of Sophocles and Euripedes were played in the original Greek and he became a first class classical scholar. Then he passed to the Grand Séminaire at Coutances an imposing granite edifice at the foot of a cathedral which could hold its own with the most perfect in France and England. At that time 30-50 new priests were ordained each year.

When Abbé Le Roy left Coutances he knew little about the Congrégation de Saint-Esprit but a compatriot told him of its work in Africa and this was enough - he decided to become a postulant. How many of us have been drawn to Africa by different routes! He arrived in Oct. 1874 at the Abbey of Langonnet in Brittany but after a year moved to Chevilly between Paris and Fontainebleau for his Noviciate. The Maître was a rugged Burgundian from Autun, a leader of men and expert in spiritual pathways. Obligated by his calling to apply a uniform rule to all he was soon nonplussed by the generous gifts Le Roy was unable to conceal. This young man was pious enough and understood all without apparent effort, was deferential and obedient with a facile humour but full of spirit, drew with a lively pen and composed agreeable beautifully written verse. He possessed so many gifts held in marvellous equilibrium but could stop in front of a flower and relish the countryside. He was an artist without vanity and an intellectual without pedantry, insensible to titles. But the Maître wondered if all this revealed a man sufficiently detached from the world and made him suspend his profession and imposed another year of Noviciate upon him but was surprised Le Roy took this with perfect calm. Priest on 10 August 1876 he made his profession in 1877 and was sent to Réunion as Professor at the Collège Spiritain de Saint-Denis. He put up with contradictions, counter-orders and other administrative nonsense which would have severely tried a less well adapted person. Hardly had he arrived than the diocese decided to close the college and he was obliged to return to Europe. This debacle wasted 7 months including the voyage. He was then sent to the college in the Auvergne where he stayed two years before going as principal to the ailing college in Pondichéry. His mission was to re-establish its standing and he succeeded. To be a principal at 27 was exceptional. But he stayed only a year in India since it was decided to pull out of the country, the domain of another mission. This time he was not recalled to France. They wrote to him 'seeing you are already in the Indian Ocean and want to keep on with Missionary work you can go to Zanzibar and present yourself to the Préfet apostolique of that coast'. Although there was a direct boat from Pondichéry to Zanzibar he chose to go from Bombay and travelled through the Deccan, the Ghats, Golconde and Hyderabad, the Vedic civilisations and the Moslem States. He arrived in Zanzibar in 1881 and was to stay there 11 years. The mission at Zanzibar was founded on the repurchase of poor slaves that the Arabs had raided just beyond the Great Lakes, particularly young boys who were taught and apprenticed to a trade in the workshops of Bagamoyo. Later they were sent to small stations which had been established among the tribes of the interior, not so far, but in beautiful sites in the mountains, more healthy in every way than the enervating coast. Journeys were made by unhurried caravans allowing a thorough study of the country traversed and the detailed customs of its people. Le Roy learnt several native languages which served him well. He was one of the few lucky missionaries belonging to the category who were allowed to make exploratory voyages of reconnaissance. It was clearly about this time that he collected molluscs, many from the Nguru Mts. but I am not aware of what first interested him nor if he were ever specially interested in them as a youth. More likely some person made it known that natural history material was worth collecting and very probably it was Rev. Père Sacleux. Le Roy made innumerable notes on all subjects. One of his first books was "A travers le Zanguebar". The end of his first leave came promptly, a near tragedy. After being bogged down in a pestilential swamp in the middle of the bush, he contracted iritis which resulted in almost total blindness. This is curable with time and detailed care. His sight returned slowly and his spirits revived. He actually said that more than others a priest must know suffering to

help him learn how to console others.

The mission in Zanzibar grew in importance. At that date the fight was against Islam which has always been very strong on the East African coast and making even greater inroads last century. 'Baptisez d'abord c'est on vaccin contre l'Islam!'. About 1890 Mgr. Raoul de Courmont the first Bishop of Zanzibar decided to reconnoître the vast mountain Kilimanjaro and get to know the tribes there who were "Menacées à la fois par les protestants et par l'Islam!". He went with Père Auguste and Père Le Roy. They had the usual adventures such as meeting lions under trees resting from the hot sun. Later during rare periods of relaxation Le Roy wrote a book 'Au Kilima-Ndjaru', illustrated with 89 of his own drawings of plants, animals and landscapes. A rare work in England but I have examined a copy and was impressed with its elegance and the excellence of the illustrations - a travel book of the old school. It is not mentioned at all in a recent book devoted to the mountain.

Mgr. Courmont was seized by a persistent fever and stopped at 3000 m. Le Roy and Auguste halted in their turn and mass was said for the first time on this prodigious altar. But they had not gone there for alpinism. After Courmont and Le Roy had returned to the coast Auguste remained behind near his friend Chief Foumba (with whom Le Roy had entered into a blood alliance) and founded the Kilema Mission which in 1938 was ministrating to 9700 local Catholics. Le Roy collected some 5-600 plants during this trip but only 300 reached the coast safely. Sacleux named them and published a list.

With such talents Le Roy gradually came to be regarded as one of the great missionaries. When in 1892 he took his second leave he was chosen to replace in Gabon the venerable Mgr. Le Berre who had just died. Both Zanzibar and Gabon have oppressive moist heat but in the latter it rains 8 months of the year and at that date unbroken forest stretched in every direction. Very few roads and rapids-infested rivers made penetration to the interior difficult but had also prevented the spread of Islam. Le Roy soon advanced the work of this mission during his three years stint in this exacting country not without some disagreements with members of the old brigade. He left to take part in the Chapitre Général of 1896.

The chief botanical discovery by Le Roy was made when he was in the Gabon. Whilst bathing in a small tributary of the Fernand-Vaz he noticed a tree with bright red fruits which he recognised as a coffee. Fournier gives the date 1885 for this but this is not possible since he did not go to the Gabon until 1892. These seeds he sent to Father Klaine to grow in his garden at Libreville and eventually specimens of the resulting plants were sent to Pierre. The species was finally validly described by Froenher who merely cites Pierre 247. Pierre at least on his drawing (of which there is a copy at Kew) does mention Klaine who was a famous collector who sent many seeds and plants from Gabon to Paris and elsewhere. Le Roy does not get mentioned in the original description but Prof. Chevalier relates the tale in his works on coffee. Le Roy had discovered what is now known as Coffea canephora Pierre ex Froenher (also called Coffea robusta), a very important crop, growing rapidly and producing a high yield. In 1894 he found another peculiar plant with flowers growing on its leaves in the Ogové basin. Baillon annotated it with a manuscript name Leroya which was not published. Over 20 years later M. Le Testu discovered it again and Lecomte referred it to Phylloclinium Baillon. Le Roy also reported that the pygmies used Tabernanthe Baillon to obtain 'des visions merveilleuses' - an early record of a hallucinogenic plant.

Apart from plants and snails, Le Roy is also known to have collected insects and fishes. Berland when dealing with some sphegid wasps mentions his name as having collected Sphex viduatus Christ. in "Zanguebar" in 1885.

The catfish Amphilius leroyi (Vaill.) was described from material Le Roy

collected in the Morogoro torrent in the Uluguru Mts. Zanguebar. In those days Zanguebar, it must be remembered, not only meant Zanzibar but all the coast falling under the sultan's sway and quite a way inland as well.

Since the resignation on health grounds of Très Rev. Père Emonet, the Congrégation had been governed by a Vicaire Général Rev. Père Grizzard. The first duty of the Grand Chapitre of 1896 was to elect a new superior. The choice fell on the young Bishop of the Gabon aged 41. At this stage of his life he was described as a lithe man, very alive, gay and spontaneous, very concerned (perhaps too much so), but also a liker of jokes and even tall stories which he would sometimes use when he did not want to reply to a question. Two assistants aided him, Grizzard a man of long experience and Henri Vanhaecke an austere figure with big black eyes reminiscent of Ignace de Loyola who could in the face of the too easy kindness of Le Roy use the brakes of strict discipline. His life was now of course more and more taken up with meetings with the very important - ministers, parliamentarians, ambassadors etc.. At the end of the first 10 years the electoral chapter of 1906 confirmed his election (which had in any case been for life). The second ten year period started in grave circumstances. The law separating church from state was passed in France and difficulties multiplied. In all large towns churches became cinemas or dance halls, seminaries became government schools, diocesan colleges were used as Lyceés. Many orders not registered and accepted by the state were suppressed and, due to a technicality over fusion with another order many years before under another name, the Congrégation was suppressed but Le Roy was held in high esteem and fought for a reversal. He managed to obtain it - apparently the only one granted. Mainly this was due to the great value ministers placed on the advice on African, indeed all colonial problems, obtainable from the Congrégation. One quite high political personage said it was a political necessity for them to continue. The despoliation of buildings etc. was halted. The priesthood in general rallied under this changed legal system and the Pope (Pius X) condemned it. Rome at this time encouraged the order to undertake more expansion in the Antilles and the Indian Ocean, The Portuguese revolution of 1910 brought more troubles with religion being proscribed and priests massacred. The order was strongly affected since it maintained vast missions in the Congo and Angola, particularly in Loanda, Cubango and Cunene, where they were occupied by pillaging bands, the Fathers put in prison or forced into exile. Eventually, however, conditions once again became more orderly.

He had sayings he liked to repeat to the young. One was 'never to commit the same error twice'. Another was to have always in preparation a personal work, a disinterested work, a scientific research, a study of a language, a map of one's district etc.. It lifted the spirit and effectively combatted the boredom and homesickness engendered by tropical isolation. He himself always had something on the go. About this time he wrote a work 'La religion des Primitifs' and a little later 1913-14 began another which in the eyes of many is his principal writing. He had always compiled catechisms for the numerous missions, some illustrated some not, but was not really pleased with badly produced little books; he wanted to produce a work of taste, well composed, well-edited and of real value for religious instruction - a volume which could be given to anyone with pleasure - he entitled it 'Credo'. He was perhaps in his most brilliant period. He also wrote several other books apart from purely religious catechistic works and had a great interest in ethnography. Most important are his detailed studies of the Pygmies and primitive religions, the former apparently from personal knowledge, although I do not know when he visited their territory or whether the information was obtained from slaves. I have listed these works in the bibliography. He also wrote 'L'Esclavage africain' and 'Islamisme et civilisation' particularly important for the ethnography of Zanzibar but I have not seen details of these.

The Great War was another difficult period since the mission had a foot in both camps, both in Europe and Africa, but despite the destruction of much of the

old order the mission in Africa advanced considerably with the number of Christians greatly increased. The next Chapitre Général due in 1916 was postponed until 1919. Le Roy, 66, fatigued and scarcely seeking re-election repeated one of his dicta 'Nul ici-bas voyez-vous n'est indispensables' but was elected and so as not to embarrass anyone he accepted a third period of 10 years. One of his first jobs was the establishment of the Les Soeurs Missionnaires Spiritaines within the order in the provinces. Whatever one's views on religion these orders were (and often still are) the only effective agents in many countries - for instance these missionary sisters reduced infant mortality in the Cameroun by 50% in a short time. The order grew in importance during his third period.

Now at 71 his majestic beard was white and his stance no longer alert. He was surprised to have lived so long - almost a scandal for a tropical missionary! But his intellectual vigour was undiminished and his spirit sparkled. However, before the end of the third décennat Le Roy's good health gave way - several maladies arrived together - his stomach ruined by cachets he had abused it with to prolong his nightly vigils when writing, kidney trouble, asthma and emphysema. He tried to fight it all, consulting numerous doctors and specialists, also medical scientists whose researches were still unpublished. He even took useless thermal cures. He allowed himself to be cared for at the Hôpital Pasteur and went to the Côte d'Azur to a house in Monaco owned by the order. But he returned more ill and knew he had to quit. The new Chapter was held in 1926 and accepted his resignation. Mgr. Le Hunsec, Bishop of Senegal became his successor but Le Roy retained the title Supérieur Général Honoraire; Rome had given him in 1926 the rank of Archevêque Titulaire de Carie. He went now into complete retreat which lasted 12 years, the beginnings of which were atrocious. Every two or three months a new danger of death arose and extreme unction was given several times. His faithful attendant Frère Bathélémi cared for him and the two house doctors were in attendance. His inutility irked him but he never complained of anything else. For five years he was in a very bad way but his spirit and humour remained; in the thirties he even had a certain remission. His room was that of a simple Father but he had a small chapel in which to say Mass. He also had the enjoyment of a library where he spent most of the day. Those of us who can think of no bliss superior to being surrounded by books can well understand the importance of this. He studied and wrote, his distinguished hand becoming shaky towards the end. He wrote letters, articles and books - a biography of Père Frédérick Le Vavasseur S.Sp. and a pamphlet 'Un Martyr de la Morale Chrétienne'. He enjoyed meetings with missionaries returning on leave, priests, colonial friends and university folk, so long as they were short. On very sunny days he even managed short walks outside. He passed away very quietly at 11 a.m. on 21st April 1938 and is buried in the Order's small cemetery at Chevilly.

List of molluscs described from material collected by Mgr. A. Le Roy in Tanzania*

Ennea bulimiformis Grandidier, 1887**. Hills between Usagara and Uzigua [Ousaghara and Ousegoua]. Type? in MNHN Paris but labelled Zanguebar, Quiryana.

Edentulina obesa bulimiformis (Grandidier)

Leroya Grandidier, 1887.

Lanistes subg. Leroya

Leroya bourguignati Grandidier, 1887. Basin of the R. Kyngani or the R. Vouami. Type in Muséum d'Histoire Naturelle, Geneva (lectotype chosen from sample of 8 syntypes - the specimen figured in Ann. Sci. Nat. (7) 10: 23, pl. 6, figs. 2-5).

*I am very grateful to Dr Simon Tillier and particularly to Mme Annie Tillier for searching out Bourguignat material for me whilst on a very brief visit to Paris in November 1985.

**Grandidier states "C'est au Rév. P. Leroy, de Zanzibar, que nous devons la

connaissance des intéressantes Espèces que nous allons signaler". I have assumed that this means the material was collected by him.

Leroya charmetanti Grandidier, 1887. Basin of the R. Vouami or R. Kyngani. Type in Muséum d'Histoire Naturelle, Geneva (lectotype chosen from sample of 5 syntypes).

Lanistes (Leroya) farleri (Craven)

Moaria chaperiana Bourguignat, 1889. Nguru Mts. Type not found.

Never recollected, a minute snail perhaps congeneric with species I have referred to Guppya.

Pachodus leroyi Bourguignat, 1889. Nguru Mts. 2000 m. Type in MNHN Paris but now broken.

Rhachidina usagarica (E.A. Sm.) var. leroyi (Bgt.). (But I have an old note that it = Rachis punctatus (Anton) but what I saw then may not have been the type; the figure certainly suggests otherwise). My recent examination of the fragments suggests usagarica, as would be expected from the altitude.

Physopsis leroyi Grandidier, 1887. Usagara, cours d'eau aux environs de la maison des R.R. P.P. du Saint-Esprit. Four syntypes in MNHN Paris.

Bulinus globosus (Morelet) (fide Mandahl-Barth)

Plotia leroyi Bourguignat, 1889. Lower Valley of R. Vouami. Five syntypes in MNHN Paris.

Thiara scabra Mull.

Stenogyra grandidieriana Bourguignat, 1889. Nguru Mts., 1800-2000 m. Four syntypes in MNHN Paris labelled Mt. de Mgourou (2000 m. alt.) Ousaghara (two very young).

Achatina (Leptocallista) grandieriana (Bgt.)

Stenogyra leroyi Bourguignat, 1889. Nguru Mts., 1800-2000 m. Type not found.

Pseudoglessula leroyi (Bgt.)

Tapsia leroyi Grandidier, 1887. Near convent of R.R. P.P. du Saint Esprit near to Bagamoyo. Type not seen.

Thapsia leroyi Grandidier

Trochonanina leroyi Bourguignat, 1889. Nguru Mts. Type not seen.

Sitala leroyi (Bgt.)

List of molluscs described from material collected by unspecified R.R. P.P. du Saint-Esprit* in Tanzania and several named after Le Roy and other Fathers.

Achatina randabeli Bourguignat, 1889. Tabora. Type in MNHN Paris with plate reference V.6.

Achatina craveni E.A. Sm. 1881 (not = A. tavaresiana fide Mead)

Bulimus bridouxi Bourguignat, 1889 (named for Mgr. Bridoux vicaire apostolique du Tanganika). Between Kondoa and Mpwapwa. Seven syntypes in MNHN Paris.

Pseudoglessula kirkii (Dohrn)

*Some perhaps by Le Roy or at his instigation, some by missionaries "qui dans leur modestie, desirent garder l'incognito" (fide Bourguignat).

Bulinus lourdeli Bourguignat, 1889. Kondoa, Type in MNHN Paris.
Pseudoglessula lourdeli (Bgt.), perhaps a variant of P. boivini Morelet (not an Edouardia as stated in my 1983 check-list)

Burtoa bridouxiana Bourguignat, 1889. Mt. Kidete between Kondoa and Mpwapwa. Type in MNHN Paris (figured by Germain (1923) p. 86 fig. 31); specimen marked IV. 3, the plate reference in the original description. Germain altered the name to bridouxi.
Burtoa nilotica giraudi (Bgt.)

Colpanostoma leroyi Bourguignat, 1889. Nguru Mts., 2000 m. Two syntypes in MNHN Paris.
Tayloria usambarica leroyi (Bgt.)

Cyclostoma leroyi Bourguignat, 1889. Nguru Mts. Type not found.
Tropidophora (Otopoma) letourneuxi leroyi (Bgt.)

Edentulina grandidieri Bourguignat, 1889. Nguru Mts., 2000 m. Type in MNHN Paris marked with plate reference VII. 8-9.
Edentulina obesa bulimiformis (Grandidier)

Limicolaria coulboisi Bourguignat, 1889. Usagara, Kérasa. Type in MNHN Paris.
Limicolaria martensiana Smith fide Crowley & Pain but neither figure nor locality agree with this species. No such slender species has ever been refound. The exact locality has not been traced; using the l-r substitution Kilosa is a possibility.

Maizania olivacea Bourguignat, 1889. Nguru Mts., 2000 m. Type in MNHN Paris. Same. (Bourguignat says "enseigne de vaisseau, M. Maizan, qui le premier de tous les explorateurs, entreprit en 1845, le voyage de Bagamoyo au Tanganika et qui périt lâchement assassiné à l'entrée de l'Ousaghara" - he is not mentioned in English books on African exploration).

Marconia gibbosa Bourguignat, 1889. Between Kondoa and Mpwapwa in Usagara also between Dyaza and Ibahi in Ugogo along caravan route. Four syntypes in MNHN Paris, one marked with plate reference VII. 6-7.
Gonaxis gibbosa (Bgt.)

Marconia recta Bourguignat, 1889. Here and there in Usagara and Ugogo, also from M'gounda Mkali, (Oukimbu)*. Six syntypes in MNHN Paris, 5 labelled Kondoa and one with plate reference VII. 4-5.
Gonaxis recta (Bgt.)

Meladomus alexandri Bourguignat, 1889. Sadani, tributary of Vouami. Type in Muséum d'Histoire Naturelle, Geneva (lectotype chosen from 6 syntypes)
Lanistes (Meladomus) alexandri (Bgt.) (named after Mgr. Alexandre Leroy).

Also named after Le Roy was Bloyetia leroyi Bourguignat, 1889. Type in MNHN Paris from Mogdouchou (Mogadishu) (= Trochonanina peliostoma von Mts.)

Quite a number of other species were collected by and/or named after Bloyet and Joubert - "Capitaine Bloyet le fondateur de la station de Kondoa" "dédiée au brave commandant Bloyet" "Capitaine Léopold Joubert, actuellement commandant des forces militaires du Tanganika" and elsewhere "chef de la milice des missions

*In his preface Bourguignat mentions "Au sortir de l'Ougogo, l'on entre sur le territoire des Ouyanzi et des Ourimbou (sic), territoire presque entièrement recouvert par l'immense forêt "M'gounda - Mkali sorte de maqui souvent impénétrable, tantôt aride, tantôt marécageux".

tanganikiennes". These I have omitted since I have not yet found out anything about the strange presence of French military personnel in Tanzania at such a date. Perhaps some information will eventually be located. It was of course just before the great "scramble for Africa" by the Great European powers so it was a kind of free for all.

Le Roy himself makes some reference to snails in his book on Kilimanjaro. Fig. 39 shows "coquilles du lac Dyipé [Jipe] - actually a very poor figure of Biomphalaria sudanica and what is probably Bulinus forskalii.

He refers (p. 337) to a letter from Grandidier telling him that Bourguignat has studied the collection of "coquilles que vous avez si heureusement faite pendant votre beau et remarquable voyage". A list is given on p. 338.

Espèces de la base

Planorbis courmonti sp. nov.

Vivipara unicolor

Cleopatra kinganica

Cleopatra letourneuxi

Cleopatra leroyi sp. nov.

Melania tuberculata

Melania courmonti sp. nov. (specimen found at MNHN labelled Lac Djipé)

Espèces recueillies à 2000 mètres et au-dessus

Helix leroyi sp. nov.

Helix courmonti sp. nov.

The 'new species' do not appear to have been described. One wonders what the Helicids were - almost certainly the same as those described by von Martens a good deal later in the mid-nineties. Bourguignat died in 1892 before the book was published. It is sad to think Le Roy missed the priority. He himself made a comment very idiomatically something to the effect that one sets out for immortality with one's name inscribed on the back of a mollusc and 'we go far provided the small beast does not stop!' If any museum possesses these snails with manuscript names I would be pleased to examine them.

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B. Verdcourt

MARINE MOLLUSCA OF HERM, C.I.

The beautiful island of Herm lies about three miles eastward of Guernsey. It has an area of 450 acres, and although only about a mile and a half long and half a mile across, it displays remarkably varied scenery. In the south it is hilly and fairly heavily wooded, whilst on the north end there are low grass-covered dunes and large areas of the Burnet Rose, Rosa pimpinellifolia L. (R. spinosissima). Walking along the footpath above the southern cliffs there are some delightful views of the other islands; here you may see the Jersey Tiger-moth, which many people mistake for a butterfly.

The mean range for tides in the Channel Islands is forty feet at spring tides and twenty feet at neap tides. There are no tides on the British mainland to match those of the Channel Islands with the exception of the tidal range at Chepstow on the Bristol Channel. I have been on the shore from Silecroft to Haverigg Point, and at Walney Island, Cumbria, when good spring tides have occurred around twenty-eight to thirty-three feet. I have been on the west shore of Herm when you could almost walk across to Guernsey, with the lowest spring tides occurring in the middle of the day which is excellent for investigating the exposed shore.

There is muddy sand in the area adjacent to Herm harbour; here I found Cerastoderma edule, Abra alba and a Scrobicularia plana, monstrosity. From the harbour to Vermerette down to Pierre Percée there are numerous depressions in the sand in which there are living and dead shells: Gibbula magus; G. cineraria; Cantharidus exasperatus; C. montagui; Venerupis aurea; Tellina (Arcopagia) crassa and Gari fervensis, scarce. Beyond the area of muddy sand by the harbour towards Hermetier there are beds of clean sand, sandy gravel and boulders. Here there are living and dead molluscs, Gibbula magus; Dosinia lupinus; Venerupis pullastra; Tellina (Moerella) donacina; Tellina (Laciolina) squalida; Gari depressa and the Var. lactea Jefferys.

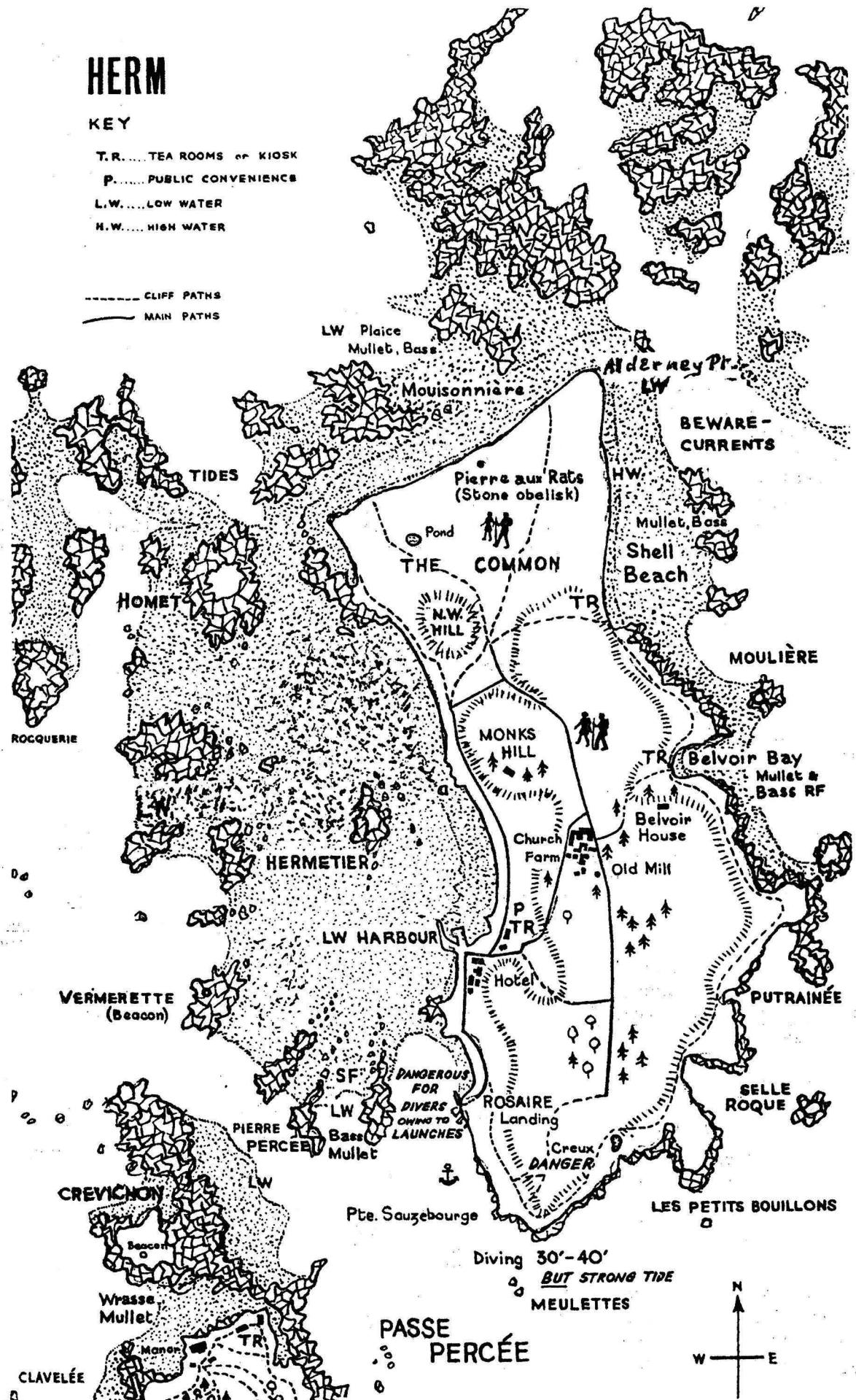
Wading in shallow water at L.W.S.T. near Vermerette, 8th. August 1963, I was fortunate enough to find a live Pecten maximus. This specimen measures over twelve centimetres; both valves are a beautiful shade of coral pink with pale yellow bands. Monodonta lineata was found on rocks beyond Hermetier, and among Fucus, Gibbula umbilicalis. Towards middle shore there was G. cineraria and Nucella lapillus. In sandy gravel there was Venus (Clausinella) fasciata and Spisula solida, whereas under boulders, Lepidochiton cinereus and Monia squama was to be found. To the west of Hermetier there were Zostera beds on which Cantharidus striatus occurred in abundance until 1978. On one of these beds near Vermerette I found four live specimens of C. montagui and three freshly dead specimens of Myrtea spinifera with the valves united. A few Laevicardium crassum were found in the sloping ends of the Zostera beds. Being shallow burrowers Venus verrucosa and V. casina were easily procured from beds of fine shell-gravel; in sandy areas Ensis

HERM

KEY

T.R. TEA ROOMS or KIOSK
P. PUBLIC CONVENIENCES
L.W. LOW WATER
H.W. HIGH WATER

----- CLIFF PATHS
——— MAIN PATHS



arcuatus also occurred. On the sides of large boulders, embedded in fine shell gravel, there were Lepidopleurus cancellata; among some of these chitons there was a specimen of Lepidopleurus scabridus (Jefferys), this specimen measured L. 7mm, B. 3.5mm, and was taken on 14th. August 1965. For comparison, Matthews gives measurements, maximum length 7mm, average 5mm and McMillan (1968) gives L. 4mm, B. 2.5mm. Under another large boulder embedded in fine shell-gravel there were eleven specimens of Acanthochitona communis (Risso). Five of these were taken, the largest of these when dried measured L. 37.5mm, B. 19mm, and L. 35mm, B. 15.5mm. The smallest two specimens measured L. 26mm and 20 mm respectively. Also under the same boulder there were three living specimens of Arca lactea and Monia squama and on the gravel a dead shell of Haliotis tuberculata; the largest specimen I have ever seen. I have often regretted leaving it in situ!

About Homet there are boulders of all sizes with brown and red seaweeds. On the Guernsey side of Homet at low water there is a channel of shallow water, here among the Laminaria weed, there were Worm Pipe-fish, Nerophis lumbriformis (L.) and the Greater Pipe-fish Syngathus acus L. (The first time I saw these Pipe-fish was in 1961, at La Bennette on the north-west coast of Guernsey.) Also among the Laminaria at Homet were two freshly dead shells of Lutraria magna (da Costa), one of these shells had part of the mantle still adhering to the valves; a third very dead specimen had algae growing inside the valves together with a number of live Cantharidus exasperatus. A few of the other creatures found here among the boulders and weed were, the Oplet Anemone, Anemonia sulcata (Pennant); Beadlet Anemone, Actinia equina L.; Cornish Sucker-fish, Lepadogus lepadogaster (Bonnaterre); Butter-fish, Pholis gunnellus (L.); Blennius pholis (L.); Squat Lobster, Galathea squamifera Leach; Broad Clawed Crab, Porcellana platycheles Pennant; Common Shore Crab, Carcinus maenas (L.); Edible Crab, Cancer pagurus L.; Starfish, Asterina gibbosa (Pennant); Brittle Stars; Green Sea-urchin, Psammechinus miliaris (Gmelin). Mollusca also found were, Haliotis tuberculata; Emarginula reticulata; Diodora apertura; Patella vulgata; P. aspera; P. intermedia, and on Fucus, Littorina littoralis. Among boulders and Laminaria weed were, Calliostoma zizyphinum; Gibbula cineraria; G. pennanti and under boulders on Zoster beds, Bittium reticulatum. Among red seaweeds were, Tricolia pullus; Rissoa parva and Trivia monacha and under boulders in silty places were, Onoba semicostata; Nassarius incrassatus; Ocenebra erinacea and O. aciculata, its animal bright red. O. erinacea and O. aciculata occurred in abundance on Homet Paradis. This islet can be reached at low tide from the north-east coast of Guernsey. It was here that Victor Hugo used to sit and look over the water to his native France. The bivalves found at Homet were, Chlamys (Aequipecten) opercularis, juvenile specimens; Chlamys (Chlamys) varia; Monia squama; Heteranomia squamula, and in sand, Dosinia exoleta; Venus (Timoclea) ovata; Venerupis rhomboides; Gari depressa; Ensis arcuata and dead shells with valves united of Thracia phaseolina.

From Homet to Alderney Point there is clean sand and outcrops of rock. In the depressions in the sand there were countless numbers of dead shells a fair proportion of which were Cantharidus exasperatus. At Alderney Point on 6th. September 1971, at L.W.S.T. there were seventeen specimens of Lutraria angustior, most of these alive; towards the shell beach there were numerous specimens of live Tellina crassa and the Var. albida Jefferys; Venerupis pullastra occurred further along towards Belvoir Bay. These last had beautiful markings in blue-grey, black, white and brown on the shells; it is understandable that if Montagu saw such specimens they would remind him of speckled pullets.

In Belvoir Bay there are beds of clean sand, sandy gravel and to the south side of the bay, rocks, boulders and weeds. Near the entrance to the bay the cliff has been undercut, here a large lobster, Homarus gammarus (L.) was observed and a short distance away was a very large Edible Crab, Cancer pagurus (L.). On the sand near the cliff was a large fish head, when the tide returned no doubt these two

crustaceans would have a fight for the prize. Mollusca found in Belvoir Bay were, under boulders, Lepidopleurus ascellus; among boulders and weeds, Calliostoma zizyphinum; Gibbula cineraria; G. umbilicalis; G. pennanti; Tricolia pullus; Littorina saxatilis nigrolineata; Trivia monacha; Ocenebra erinacea; O. aciculata; on rocks and boulders, Patella vulgata; P. intermedia; P. aspera; on Laminaria weed, Patina pellicida; on stones and dead shells, Calyptraea chinensis; in Zostera beds, Cantharidus striatus; in crevices low on the cliff, Modiolus barbatus; and in sand and sandy gravel, Dosinia exoleta; Venus verrucosa; V. casina; Venerupis rhomboides; V. pullastra; Tellina crassa and Ensis arcuatus. At L.W.S.T. on 7th. September 1971 Laevicardium crassum and Lutraria angustior were also found in Belvoir Bay, together with two freshly dead shells of Solecuretus scopula (Turton) valves united.

The beaches of Guernsey and Herm at the time of Sylvanus Hanley over a hundred years ago must have been a conchologist's paradise. Unfortunately these beaches are not what they were in 1961, some species of mollusca have disappeared, others which were common are now hard to find. Each time we have visited these islands I have made repeated searches at L.W.S.T. in Belvoir Bay in the hope of finding Mactra glauca. In all we have made five visits to the Channel Islands, the last being in September 1978. This was the year of the Amoco Cadiz oil spill on the French coast. It was said that the oil spill had not affected the Channel Islands but I have reason to believe that the detergent spray used to disperse the oil did affect the east coast of Guernsey and Herm. In September 1978 the west shore of Herm was in a state of utter desolation. The Zostera beds were devoid of life, creatures to be found there on previous visits were no longer there. The few species of large bivalves found were only just alive, the animals were shrivelled and dehydrated. After two days of searching on the west shore of Herm very few species of mollusca were to be found.

I decided to go to the west coast of Guernsey. In Grand Harve at lowest water of spring tide a fair number of our smallest marine molluscs were taken from weed washings. The upper shore of this beach has been spoilt by numerous bait diggers and the very large specimens of Venerupis decussata are now gone. Pandora albida, previously abundant in the sand towards Les Ammarreurs, have been trampled almost out of existence and are now scarce. This kind of sorry tale is now common to many British shores.

My thanks are due to Mrs. N. F. McMillan for determination of the Cantharidus montagui and the Scrobicularia plana.

G. W. Pitchford

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SHELLS AS LINE AUTOMATA

Bivalve shell patterns which fail to coincide with the lines of growth - most cryptic patterns, since their function is to disrupt the shell outline by dazzle-painting - pose an interesting mathematical problem. The characteristic hollow or solid V-shaped markings can be envisaged as representing pigment production which begins at a point on the mantle edge and spreads outwards. Hollow markings occur when activity dies out rapidly, solid when it persists. When two active points

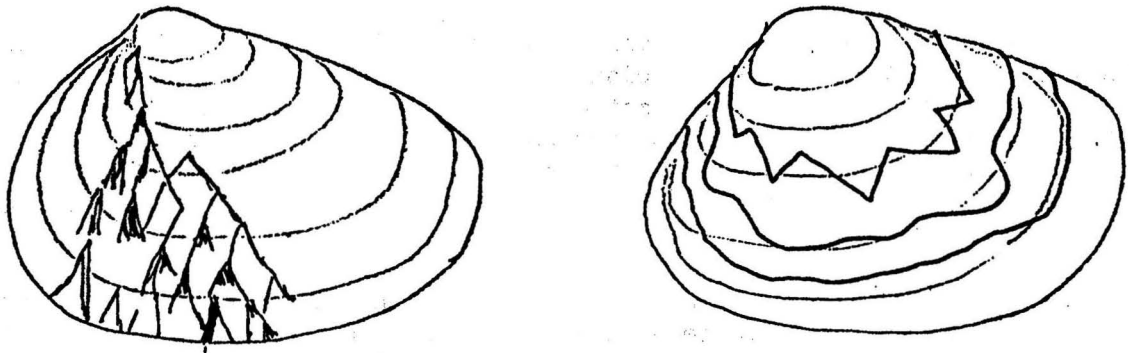


FIG. 1

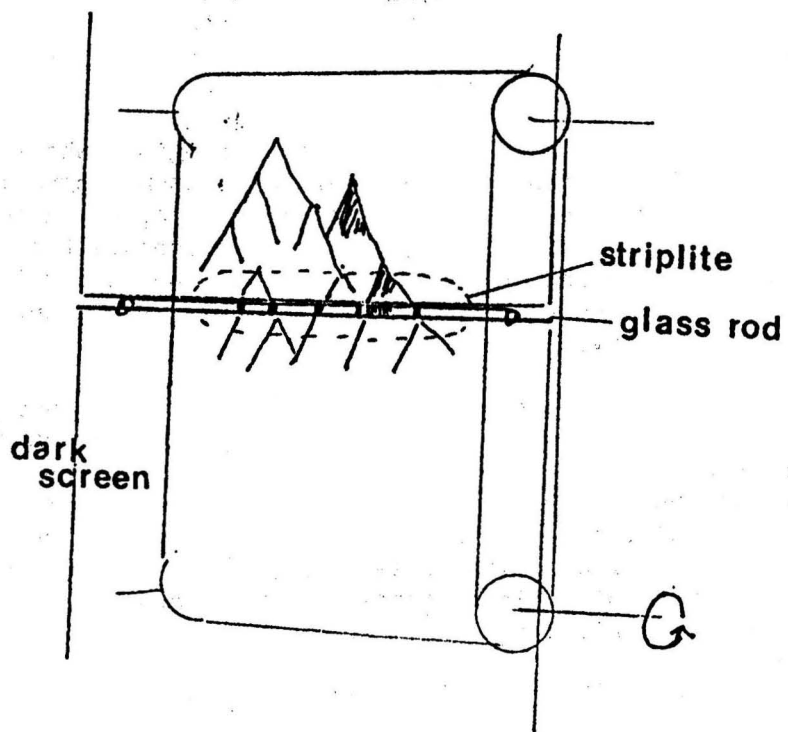


FIG. 2

meet, they may extinguish each other, the adjacent cells being already refractory, cross, or coalesce. An extreme case is seen in the case of lines nearly but not quite parallel to the shell margin, which represent pigment production starting in two areas at opposite ends of the mantle, moving towards one another, and coalescing. (Fig. 1)

In order to visualize the localization of mantle activity I formerly used a mechanical model (the "artificial clam") in which patterns were copied onto endless tracing-paper bands after transformation which converted the curved growing edge into a straight line, and then run over rollers, behind a cylindrical lens (a glass rod) and in front of a striplight. On cranking the paper band, the movement of pigment secretion along the mantle edge for any given pattern could be directly observed. (Fig. 2)

A more versatile type of analysis depends on the fact that an intermitting linear system such as the mantle edge can be treated as a natural example of a line automaton and written as a computer programme. A line automaton is an algorithm or set of instructions based on a linear array of n cells, each of which contains a digitally-coded 1 or 0. The programme directs the computer to construct a second line of cells, the content of each of which is determined by the digital content of the cells immediately below it in the first line as laid down in the algorithm. A third line is similarly constructed from the second, and so on, until the screen is filled. Some algorithms are self-extinguishing under this method of display. Others generate repetitive patterns, which may include the production of particle-like "gliders" which travel across the screen in successive lines, and may react with one another when they "collide", very much in the manner of subatomic particles, an analogy which has been applied to physics. At another level, re-entrant or recursive programmes can readily be written to generate fractals, which many shell-patterns resemble (other examples can be seen e.g. in the sutures of Ammonites, which can be subjected to fractal analysis).

The purpose of this note is to propose to conchologists who also happen to be computer experts the writing of a series of line automaton programmes which simulate the range of patterns observed in a suitably marked, variable species - starting with single valve patterns, and going on to generate the patterns seen in pairs of valves, which may coincide, alternate, or be apparently independent of one another. Similar patterns occur in univalves, but bivalves, being flat, display the entire pigmentary history.

For a general account of line automata, see Dewdney A.K. 1985 Scientific American, May 1985, p. 12. The mantle-edge is not strictly a computational device, but it uses a linear automaton to generate a two-dimensional pattern incongruent with growth lines, and hence the shell form. k , the number of states of each cell, = 2 (pigment, no pigment) : r , the size of the region influencing the state of each cell, varies (to give hollow or solid patterning). This problem - the existence in nature of direct analogues of a line automaton - was first addressed by Stephen Wolfram at Princeton. The bivalve shell is a particularly striking example.

Alex Comfort, MB DSc, The Windmill House, The Hill, Cranbrook, Kent, TN17 3AH

P.S. I am just sorting out a big batch of a marine bivalve (Meroe scripta?) I just collected near Puri, Orissa, which gives an excellent picture of bivalve pattern generation. I used to demonstrate this with a "mechanical oyster" (in which the pattern was drawn on paper and run behind a glass rod, showing the movement of melanotic activity in the mantle edge) but a more satisfactory analytic method would be to write a computer programme to simulate patterning. Do we have a member interested in biometry, programming, fractal algebra and the like? I would make material available on request.

SHELLS AT BASILDON HOUSE

The note in CNL 93 on the shell collection at Arlington Court is a reminder that this is not the only example in the care of the National Trust. There are shells worth seeing at Basildon Park, which is on the Thames near Streatley, in a room specially fitted up to contain and display them. They were originally collected by the first Lady Iliffe and the writer is in course of identifying and cataloguing them.

True collectors, like some other sections of humanity, are born, not made, and this excludes investment collectors. Charlotte, Lady Iliffe was all her life fascinated by small and beautiful objects and this interest expressed itself in various ways. Money was never any problem but much of what she amassed cost nothing at all, since she delighted in finding things for herself; and as she did a good deal of travelling she was able to pick up all manner of exotic objects. A few were merely curious but in the main she favoured things which appealed to her sense of beauty because of their shape, colour or texture and it was natural that seashells should take a large place in her affections. Fossils she liked, ammonites which had been sectioned and polished to show the fascinating and variable internal patterns; corals also, in some quantity.

Lady Iliffe's collecting was unaffected and single-minded; the merely expensive she scorned. Friends would be shown a drawer or box containing perhaps a Roman bronze figure, a miniature or an 18th. century snuffbox, two curiously marked stones she picked up in the West Indies, a cowry and a few snails from the garden at Yattendon - all of equal appeal to her.

It was to be expected that the shell collection would grow the fastest because shells are found in such quantities and varieties all over the world. Perhaps the majority of those you see she collected personally, although she frequently bought what she could not find; rarities are few. However, she did purchase the collection of a well known amateur scientist, the Rev. E. G. Alderson, in 1946. This collection was described by Blok and Pain, who catalogued the Ampullariidae, Alderson's special love, in 1947. Besides these, the collection contained many fine and beautiful tropical marine shells, most of them still in the drawers of the original cabinet which occupies the centre of the room. However, his Pleurotomaria hirasii and Cyprea aurantia are on show, together with a fine selection of Nautili.

Lady Iliffe had no interest in the scientific side of conchology and thought it a waste of time to label or record her specimens, but there was a famous occasion on which she invited members of the Conchological and Malacological Societies to Yattendon Court to view her collections. Our then Treasurer, A. E. Salisbury, a fine musician, gave a concert on the magnificent organ there and at the end of the session she was elected member of both societies by acclamation, the only time such a thing has been done. She maintained her membership for many years until her health failed.

The three great cabinets housing the shells are worthy of notice. These were built and installed by Mr. Gordon Davies of Canterbury and the outside of the doors and the panelling are encrusted with shells: above each cabinet is a Neptune head or flower basket all modelled in shell work, while the door frames are encrusted with Turritella communis laid head-to-tail in double rows. On a rough calculation there must be between 60,000 and 70,000 of these and one wonders where such quantities could be obtained commercially. The whole achievement as described sounds awful and isn't at all. It has been tastefully and strikingly done and, with the contents, results in a considerable degree of fascination for the visitors.

REFERENCE

1948, Arthur Blok and T. Pain: The Shell Collection of the late Rev. E. G. Alderson with special reference to the Genus Pila Roding. J. Conch. 22, No. 12, pp. 299-302.

T. E. Crowley

THE MOLLUSCA OF THE DURMITOR NATIONAL PARK, SOUTH-WEST MONTENEGRO, YUGOSLAVIA

In June 1985 my wife and I made a short visit to the Durmitor National Park, based at the little mountain town of Zabljak, the highest town in Yugoslavia, at a height of 1,450m above sea level. Zabljak is the mountain centre for the park, which covers 32,000 hectares of mountains and gorges. The Durmitor Massif is situated between the rivers Tara and Piva, with Bobotov Kuk at 2,522m being the highest in the chain of mountains, many over 2,000m, which form the Dinaric Alps.

The area around Zabljak is rich in Mollusca, and I was pleased, therefore, to find a published list of the Mollusca of the National Park available for sale in the National Park Centre at Zabljak. The list covers the whole of the National Park, including those parts of the Tara Canyon inside the park and the whole of the Susica Canyon. 89 species and sub-species of molluscs are recorded, 87 gastropods and 2 bivalves. 14 of these are freshwater species, including the two bivalves, 75 species and sub-species of land snail are thus known from the area. A small number of nomenclatural errors occur and one possible error of identification, but on the whole this is a very useful publication for those interested in the Mollusca of Yugoslavia.

I was able to find about 46 species, a small number of which are still unidentified, in the vicinity of Zabljak, and the following species appear to be new to the Durmitor National Park.

Zonitoides (Zonitoides) nitidus (Muller, 1774) Scarce in marshy areas on the banks of the River Otoka below the Hotel Jezera, Zabljak.

Milax sp. cf. gagates (Drap. 1801) Two immature specimens found under stones at Poljanak.

Deroceras (Agriolimax) reticulatum (Muller, 1774) Fairly common in several areas; Poljanak; Poljana; In meadow beyond Pitomine from Zabljak; Lakat above, and on banks of Crno Jezera; Grounds of Hotel Jezera, Zabljak. This species may be new to the Park or it may have been recorded as Deroceras (Deroceras) agreste (Linné. 1758) in error.

Euconulus (Euconulus) alderi (Gray, 1840) Scarce in the marshy areas on the banks of the River Otoka below the Hotel Jezera, Zabljak.

REFERENCE

Bole, Joze, 1984, The Fauna of the Durmitor, Pt. 1., Mollusca pp. 343-394; Published by The Montenegrin Academy of Sciences and Arts, Special Editions Vol. 18; Section of Natural Sciences Vol. 11; Titograd.

Adrian Norris, Leeds City Museums

PUBLICATIONS RECEIVED

Note. All items mentioned will be held by T. E. Crowley for three months after issue of this Newsletter, so that any members who wish may borrow them during this period.

Nature Conservancy Council 11th. Report - April 1984-March 1985 N.P.
Northminster House, Peterborough, PE1 1UA

Nature, more's the pity, has to become regimented if it has to survive the onslaughts of the warring bands arrayed against it, bands whose heavy artillery is usually money. With what weapons does one fight the pressure of big finance? The courage of convictions, perhaps, not always a certain or deadly weapon, and the convinced naturalist must sometimes feel like a Polish lancer attacking a German tank. Nevertheless, progress has been made, as this report shows, and the current and projected improvements to the conservation laws, so ineffective in the recent past, give promise of more protection for places and things worth protecting in the future.

This is a finely-honed report listing a surprising variety of activities and telling the reader all he could possibly want to know about how the N.C.C. is helping to protect (here it comes) the environment.

It is made clear that top priority is given to the notification and re-notification of S.S.S.I.s and full details are provided of new sites, damage done to existing sites, and of co-operation with regional Trusts and other bodies. One particular danger is defined thus:

"The financial structure of agriculture remains our greatest problem little change is possible without agreement in Brussels. this is of great concern, since, with the present agriculture policies so strongly favouring cereals, more and more land is being lost to cereal production. When technology increases production so rapidly it is hard to see how surpluses can be eliminated without some form of acreage limitation".

Note the word 'lost'. It is inferred that the E.E.C. is no friend to conservation in this country. It is also pointed out that land of the highest interest from a nature conservation viewpoint is being planted with trees even though barely suitable for afforestation; tax concessions make this sort of thing highly profitable.

The present laws still have some major loopholes and N.C.C. considers that the Wildlife and Countryside Act requires reinforcement (although not fundamental change). Enforcement of the existing act is reported in detail; there is evidently still considerable difficulty in achieving balanced decisions in the rural sector where economic and non-economic interests conflict.

This is true even in the case of marine conservation, still in its early stages, but the overriding powers are now in the hands of the Government and the establishment of reserves is now a probability: proposals are in hand.

Conservation does depend on knowledge and the Council has much to say about what it terms the Science Base. In this connection is mentioned the Invertebrate Site Register, compiled for the Council's use only, and not published. Biological control practices are reviewed and it is emphasised that the side-effects of introduced predators have not been adequately monitored as yet, nor has the N.C.C. been consulted at an early stage in any instance.

Much work is being done in the international field, in co-operation with W.W.F. and other bodies.

A list of grants and research contracts is appended and there is a financial statement.

The Report is attractively produced with some excellent photographs of places and things in which special interest has been taken.

T.E.C.

THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

SPECIAL GENERAL MEETING ON SATURDAY 15th. MARCH 1986

A special General Meeting was held on 15th. March 1986, immediately before the Annual General Meeting, to discuss the need for raising the subscription rates. The President apologised to the meeting for the change of venue from the Demonstration Room to a nearby Gallery. This was due to the Museum accepting a double booking. The President and Treasurer then outlined the need to raise the subscriptions. The recommended rates by the Council were:-

Full members £13 Family members £15 Junior members £3
Institutional members £18

The entrance fee payable by everyone would remain £1, and the special discount for payment before March 31st. would remain £1.

It was pointed out that the subscription rates had remained unchanged for 5 years, and that the Society was one of the cheapest national societies in the country.

Mr. Long proposed, seconded by Miss Fogan, that the new subscription rates should come into force as from 1st. January 1987. The motion was carried unanimously.

The 990th. (Annual General) Meeting

In the Chair: Mrs. E. B. Rands with 47 members and friends present.

Appointment of Scrutineers: Mrs. Pain and Mr. Worth agreed to serve as Scrutineers again this year, and were so appointed.

Nominations and Elections:

Full members

van Niekerk, D.T., [REDACTED], Waterkloof, Pretoria, 0181, South Africa.
Smith, G.D.W., [REDACTED], Podington, Wellingborough, Northants., [REDACTED]

Junior member

Bablow, Miss Kate, [REDACTED], Prestatyn, Clwyd, Wales, [REDACTED]

Report of the Council 1985/6: read by the Hon. Secretary and accepted.

Report of the Accounts 1985/6: copies of the Accounts were circulated and the report read by the Treasurer. Due to the bad weather, the Auditors were unable to see the Accounts. However, both the Accounts and the Report were accepted, subject to the satisfaction of the Auditors.

Report of the Non-Marine Recorder: read and accepted.

Report of the Marine Recorder: read and accepted.

Report of the Hon. Junior Members Officer: read and accepted.

Report of the Hon. Field Meetings Officer: read and accepted.

Announcements: On behalf of the members of the Society, Dr. Rundle thanked the members of Council and the Officers and the Tea Ladies for their service during 1985/86.

The president announced that there would be an Auction of Books after the tea break. The books were available for prior inspection. The president also apologised for the lack of tea making facilities. Instead, she and the Treasurer have brought wine for the Meeting.

Results of the Postal Ballot: All Officers were re-elected to serve on the Council. The following new members were elected: Dr. Rundle, Dr. Paul, and Mr. Killeen.

Election of Auditors: Dr. Lloyd Evans and Mr. Edwards have agreed to continue as Auditors and this was confirmed by the Meeting.

Presidential Address: 'The River Great Ouse'

Announcements and Correspondence: there was an auction of books for the benefit of the Society's funds.

The President told the meeting about the European Malacological Congress, to be held at the beginning of September. Dr. Gascoigne would be attending this meeting, but had decided to donate his full set of symposia to 'the most promising young malacologist' to be selected by the Council of the Society. In conjunction with Unitas Malacologica, the winner would also receive a free trip to the Congress. The President announced that the winner of this award was Mr. I. Killeen. Dr. Preece said a few words about the 'Conchological career' of Mr. Killeen, and Mr. Killeen gave his thanks for receiving the award. Mr. Killeen would be writing a piece for the N.L. about his impressions of the Congress. Mr. Long announced that a copy of the 1830 paper by Jeffreys was available to those interested.

Dr. Willing announced that he had brought some leaflets for the British Wildlife Appeal. He asked that members either give one to friends or display a leaflet. Mr. Crowley thanked the President on behalf of the Meeting for her presidential address and suggested that it be published in the Society's annals.

Members exhibits

- | | |
|----------------|---|
| D. T. Holyoak | Freshwater Gastropoda from North Africa. |
| M. B. Seddon | Freshwater Mollusca from Lake Ochrid and Lake Prespa, Yugoslavia. |
| M. Mitchell | Family Architectonicidae Gray, 1850 |
| C. Street | Shells from St. Agnes, Scilly Isles, February 1986 |
| E. O. Bishop | Siphonaria: intertidal pulmonates |
| F. R. Woodward | Shell of <u>Neomphalus fretteri</u> McClean from Garden of Eden, Galapagos Rift. Shell is from animal dissected by Dr. Vera Fretter, after whom the species is named. |
| T. E. Crowley | Pilgrim sign (scallop) 15th. Century |
| T. Pain | The genus <u>Rhiostoma</u> Benson, 1860 Prosobranchia - Cyclophoridae |
| E. B. Rands | Photographs of drawings by D. W. Guntrip of freshwater Mollusca. These are being prepared for the proposed Bedfordshire Mollusc Atlas. |
| | Mussels chewed by Water Voles |

The 991st. (Ordinary) Meeting held on 19th. April 1986

In the Chair: Mrs. E. B. Rands with 40 members and friends present.

Matters arising: Miss Fogan was thanked by the Meeting for the provision of plastic glasses for the wine at the A.G.M., and Mr. Crowley expressed the hope that the apology given by the President at the beginning of the A.G.M. was on behalf of the Museum, not the Council.

Nominations and Elections: Acquisitions Section, Dept. of Library Services, British Museum (Natural History), Cromwell Road, London SW7 5BD
The President pointed out that there was only one new member elected today, and that the membership of the Society was declining. She appealed to all members to find new members for the Society.

Lecture: 'Hothouse Snails' by Dr. A. Rundle

Announcement: there was a vote of thanks by the meeting to Ms. Kathy Lange for providing snail champagne for members in the tea break.

Papers read: 1. 'The Tertiary-Recent bivalve Noetiella' by P. G. Oliver
2. 'Estellacar, Rectangularca, and the systematic position of Barbatia pectunculiformis' by P. G. Oliver
3. 'A reclassification of the recent genera of the subclass Prototranchia' by J. A. Allen and F. J. Hannah
4. 'John Morton's list of Northamptonshire Mollusca' by M. P. Kerney

Announcements and Correspondence: Mr. Negus announced that he had received a letter from Mr. Thomas, lecturer in zoology at Goldsmith College, requesting help in collecting crayfish records. Mr. Crowley would collect any records from members and pass them on to him.

The Secretary read a letter from the Kent Trust for Nature Conservation, giving details of a programme of meetings to be held in areas which may be at risk from the Channel Tunnel. All members who wished to participate were asked to obtain details from the secretary. It was pointed out that a marine field meeting to Folkestone had already been arranged by the Society, and that a non-marine meeting would also be arranged for the autumn.

The secretary read a letter from the Marine Biological Station at Millport giving details of a class in Marine Biology to be run there in August.

The President announced that she had received a request to exchange journals with the Hungarian journal Misc. Zool. Hungarica. Anyone interested should contact her. Dr. Coles also announced that he had received a similar request from the Spanish Natural History Society.

It was announced that copies of the book 'Butterflies of Suffolk' could be obtained from Mr. Killeen for the price of £10.

Dr. Coles announced that he had been contacted by the regional officer of the N.C.C. with regard to the boundary of the S.S.S.I at Pevensey Levels. He would like to know of any ditches in that area which may be of interest, and any information should be given to Dr. Coles. A notice will also be placed in the N.L.

Any other business: The President pointed out that the May meeting was an open one, with members giving short talks. Some members had already indicated that they would be giving talks, such as Mr. Negus, but that more members should consider doing so.

Exhibits

A. Rundle	Hothouse snails
D. Guntrip	Hothouse snails
	Microscope arrangement for drawing shells

A. Comfort Jamaica; field collection, 1985
 I. J. Killeen Suffolk Butterfly Atlas
 M. Seddon Helicidae from Yugoslavia
 D. Holyoak Orculidae from Yugoslavia
 E. O. Bishop Neotropical tree snails
 B. Colville Some snails recently collected from Cyprus
 T. Pain The genus Sultana Shuttleworth, 1856. Tropical South America

992nd. (Ordinary) Meeting held on 17th. May 1986 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 34 members and friends present.

Death: The death was announced of Sir Maurice Yonge, who was Guest of Honour at the Society's Centenary Dinner.

Nominations and elections to Membership: 3 Full Members

A. Colston, B.Sc., M.Sc., c/o. N.T.N.C., Lings House, Billing Lings, Northants., NN3 4BE

P. S. Mobsby, [REDACTED], Salisbury, Wiltshire, [REDACTED]

Mrs. S. M. Smith, B.Sc., Ph.D., [REDACTED], Hayton, Cumbria.

1 Institutional Member

British Geological Survey, The Library, Murchison House, West Mains Road, Edinburgh, EH9 3LA

Lecture: This was an Open Meeting, with short talks illustrated by slides on the following topics:

'Field dress of non-marine collectors' by D. T. Holyoak;

'Habitat of Toltecia pusilla in southern England' by D. Guntrip;

'Mollusca from shingle beside the Fleet, Dorset' by P. Palmer and Mrs. J. Light;

'Photographs of living British land snails' by D. Rands.

Announcements and Correspondence:

Members were reminded of field trips to East Kent and Suffolk to be announced in the next Newsletter.

Exhibits

D. T. Holyoak Yugoslavian Clausiliidae.

I. J. Killeen Magazine article on the biochemistry of purple dyes.

T. Pain Potamididae ('mangrove whelks').

D. Rands Shells to illustrate talk on photography of land snails.

M. B. Seddon Big Zonitidae.

J. Tuck Two books, 'The Spell of the Shell' by Martha Keeling Hodgson, 'The Land and Freshwater Shells of the British Isles' by Rimmer.

P. E. Negus The Newsletter then and now.

GENERAL NOTES

The Northumberland record of Phenacolimax major (Férussac): a correction

The record of this species from Northumberland (v.c. 67) is based on a shell from Rothley (NZ 0489), found by the Rev. E. P. Blackburn in 1930 and identified as major by both B. B. Woodward and A. E. Boycott (J. Conch., Lond. 19, p. 60).

Blackburn's subsequent searches in the same place were unfruitful (Trans. northern Nat. Union 1 (1934), p. 176). The record was included (as a 'shell record') in the Atlas of the non-marine Mollusca of the British Isles (1976, map 105) but in view

of the otherwise very southerly distribution of major in Britain the occurrence (the most northerly in Europe) remained anomalous.

I am grateful to Mr. Ralph Lowe for the opportunity to examine the specimen from Rothley, now in the Sunderland Museum. It proves to be only an unusually expanded, flattened specimen of Vitrina pellucida; its deceptive major-like shape results from a growth abnormality, the beginnings of which can be seen near the apex of the shell as a slight irregularity in the coiling.

M. P. Kerney

The Snail of Scotland: an unpublished comment from William MacGillivray

This note is in response to "A Pack-slug" by Nora McMillan (Conchologists' Newsletter 93: 286, June 1985).

William MacGillivray (1796-1852) is remembered by malacologists for his History of the Molluscous Animals of the Counties of Aberdeen, Kincardine and Banff (1843, and 2nd. edition with changed title, 1844), and for the revised 6th. edition of Brown's Conchologist's Textbook (1845). That he intended to publish a revised edition of the History is apparent from his personal copy, interleaved and extensively corrected and annotated, in the Library of the Museum of Victoria, Melbourne. The following comment by MacGillivray runs on from the paragraph on Nomenclature (Introduction, p. xix).

"The vernacular names are remarkably few, the natives not being much in the habit of noting differences in the animals which they see. With them all the naked pulmonated mollusca are Snails, the testaceous pulmonated species are Buckie-Snails; univalve spiral shells are Buckies, conical or concave shells Limpets; Cockles are all kinds of bivalve shells, excepting Spoutfish, Mussels, and Oysters. I have in vain endeavoured to find names for our mollusca among the fishermen. On the west coast of Scotland, and especially in the Hebrides, the people have names for almost every animal or plant, every spring, brook, or pool, every rock, or large stone, hill or mountain, hollow, height, or piece of ground distinguished by any conspicuous quality. Their mollusca have almost all generic and specific names. This is one of the differences between the Celt and the Saxon, the wild Indian and the civilised rustic. All naturalists find the savage a more congenial companion than the rude civilized man".

A note on p. 282 against Solen siliqua (= Ensis siliqua) reads "The name by which this species is known in the district is Spoutfish".

(Signed) Robert Burn

Pomatias elegans (Müller) in v.c. 69 (Westmorland)

Pomatias elegans (Müller) has an outlying colony on the limestone of NW England and J. Davy Dean (1907) and H. Beeston (1909) gave details of the species around Silverdale, Arnside, and Grangeover-Sands.

Chris Felton took an empty shell on 19 May 1985 on Whitbarrow above Witherslack, and this suggests that the species may occur a little further north than its well-known loci described by Dean and Beeston. The NGR for Felton's shell is SD456867.

REFERENCES

- Beeston, H. 1909 The land and freshwater Mollusca of Grangeover-Sands.
 Journal of Conchology, vol. 12; 193-208, 241-249.
 (Pomatias on p. 248).

Dean, J. D. 1907 The Land and Freshwater Shells of Morecambe, Lancaster, and District.
 Journal of Conchology, vol. 12, 34-48.
 (Pomatias on pp. 45-46).

Nora McMillan

Department of Invertebrate Zoology, Merseyside County Museums, Liverpool

OFF THE MENU!

People caught digging for snails in the central Ghanaian town of Sarpeh will be fined a sheep and a bottle of the local alcoholic brew.

The Daily Ghanaian Times said Sarpeh officials outlawed snail-digging for food, because it ruined the land.

16 Jan. 1985, Liverpool Echo (from Mrs. N. F. McMillan)

WANTED

British Physidae, anaesthetized, fixed and preserved. Contact Dr. Dwight W. Taylor, Dept. of Geology, Oregon State University, Corvallis, Oregon 97331-5506.

CORRECTIONS TO THE NOTE ON THE A. S. POORE COLLECTION of molluscs at the Greenwich Borough Museum.

1. Chondrula tridens does not appear in this collection.
2. For Glen Meay, Isle of Man, read Glenmave.
3. For Portealou, Ireland, read Portsalon.
4. For Wicker Fen, Cambridgeshire, read Wicken Fen.

J. U. Tuck

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE c/o. British Museum (Natural History), Cromwell Road, London, SW7 5BD ITZN 11/5 14 July 1986

The following applications have been received by the Commission and have been published in volume 43, part 2, of the Bulletin of Zoological Nomenclature (9 July, 1986). Comment or advice on them is welcomed and should be sent c/o The British Museum (Natural History), London, England. Comments will be published in the Bulletin.

Case No.

- | | |
|------|---|
| 2507 | <u>Risomurex</u> Olsson & McGinty, 1958 (Mollusca, Gastropoda): proposed designation of type species. |
| 1212 | SINUITIDAE Dall, 1913, MACLURITIDAE Fischer, 1885 and EUOMPHALIDAE de Koninck, 1881 (Gastropoda, Archaeogastropoda): proposed conservation by suppression of PROTOWARTHIIIDAE Ulrich & Schfield, 1897, MACLURAEIDEA Gill, 1817 and SCHIZOSTOMATIDAE Eichwald, 1817. |
| 2408 | <u>Laplysia viridis</u> Montagu, 1804 (Mollusca, Gastropoda): conservation proposee par la suppression de <u>Laplisia viridis</u> Bosc, 1801. |

P. K. Tubbs, Executive Secretary

PLEASE SEE NEXT PAGE

BRITISH MARINE WORKSHOP, NOVEMBER 8th. 1986, NORTHAMPTON

The second British Marine Workshop will generally follow the pattern of the first but with some differences. Emphasis will still remain on help in identifying molluscs but, in addition, we hope to add a little instruction on general anatomy and how a mollusc works, together with a brief outline of the development from a single cell to a fully developed adult.

We also intend to show some slides illustrating three ideas:

- * Where molluscs live
- * The zonation of the shore
- * Relative exposure of a shore.

Time may not permit us to cover all of this, bearing in mind the accent on identification, but we will cover a good deal of it. There should certainly be plenty to hold our interest and keep us occupied so we hope that those who came last year will again attend. We also hope to see some new faces. Owing to a full programme for the day we shall be aiming to start promptly at 10.00 a.m. and finish around 4.30 p.m.

Equipment to be brought should include:

Microscope (if possible) but there are microscopes available at the Humfrey Rooms
Petri dish/es or similar
Fine paintbrush for handling specimens
Forceps for handling specimens
Enough sealable bags/boxes for specimens, also labels
Specimens for identification/shellsand/weedwashings
Notebook

A map of Northampton is available on request.

When completing the form below, please indicate if, and at what time you would like to be met from Northampton Station.

BOOKING FORM

Please detach and send to: Mrs. Jan Light, [REDACTED],
Godalming, Surrey, [REDACTED],
Telephone: [REDACTED]

NAME

ADDRESS

TELEPHONE NUMBER

It would be helpful if you could tell us how you intend to travel to Northampton

Please give details of special interest and/or aspects not already mentioned that you would like to be covered.

Signature Date

Fee paid (£5.00 - £2.50 for Juniors)

THE CONCHOLOGISTS' NEWSLETTER

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Market Harborough,
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NOTES ON THE GIBRALTAR MOLLUSCA - 1

Introduction

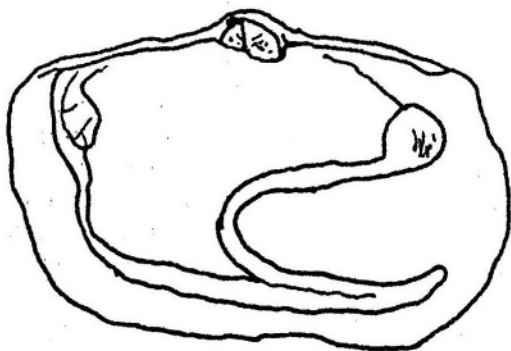
I am presently conducting a complete survey of the Mollusca of Gibraltar, both land and marine; I envisage this to take several years due to the extensive amount of work needed. I have already collected many species and have identified the majority, in addition to species description I am undertaking distribution studies, etc.

For those not familiar with Gibraltar, it is a British colony situated at the entrance to the Mediterranean Sea. The surrounding waters and prevailing conditions contribute to the fact that Gibraltar has a rich molluscan fauna.

As my final work will be several years in preparation I thought it might interest readers if I publish occasional notes on my findings. The final work will detail the geography, geology, weather conditions, etc. of Gibraltar in addition to plant distribution and sea depths.

Two bivalve species not previously recorded from Gibraltar

Specimen 244. *Lutraria angustior* Philippi



Inside of right valve drawn actual size

Collected 12th. January 1986. Catalan Bay. UTM Grid reference TF 8946 to 8953 0200 to 0225.

I have only found a right valve of this species which is weather worn to a degree but good enough for positive identification.

Description The valve is white both inside and outside. The sculpture consists of

fine concentric lines with ridges present. Two cardinal teeth are present in front of the ligament pit with a ridge-like lateral behind it. The pallial sinus is deep and extends to below the anterior part of the ligament pit; in addition the lower part of the pallial sinus is confluent with the pallial line.

The other two Lutraria species described for Gibraltar are L. lutraria (Linnaeus) and L. magna (da Costa). The right valve of L. angustior differs from the above two. L. lutraria does not have the lower part of the pallial sinus confluent with the pallial line and L. magna, although having confluency of pallial line and pallial sinus, has the anterior cardinal tooth longitudinally bifid and usually has a slightly concave dorsal line.

Specimen 245. Pandora albida (Röding)



Inside of left valve drawn actual size

Collected 12th. January 1986. Catalan Bay. UTM Grid reference TF 8946 to 8953 0200 to 0225.

As with L. angustior I have only found a single valve.

Description The valve is rather thin and mostly white but with scattered diffuse light brown patches the largest being on the outside of the valve around the beak area. The inside is mostly tinted brownish and is pearly. The sculpture consists of fine concentric lines. Two curved ridges are present running very nearly parallel from the umbo posteriorly to the edge of the valve. The dorsal line of the valve is inset and the ligament pit is a fairly long groove, relatively narrow, on the inside of the valve situated so that its lower end points at an angle posteriorly from below the beak. The pallial line exists as a line of small separated muscle scars; there is no pallial sinus.

Comments

Gibraltar lies opposite Algeciras (Spain) and many of the species found in Gibraltar may also be found in Algeciras. However in a paper by Van Aartsen et al (see reference no. 3) neither of the two species I have described are mentioned (this does not mean that they are not present there). Incidentally, the area of sea in between Gibraltar and Algeciras has been incorrectly referred to by Van Aartsen et al as Algeciras Bay whereas in fact the correct name is the Bay of Gibraltar.

I would be pleased if anyone having any molluscan literature pertaining to Gibraltar would let me know, I am prepared to purchase works and pay for photocopies. The available literature is very small so anything would help. I am very grateful to Mr. A. Norris, F.L.S., Leeds City Museums, who has helped me in this respect and is helping with land species identification.

References

1. Tebble, N. 1976. British bivalve seashells. HMSO.
2. Norris, A. 1976. Some notes on the molluscan fauna of Gibraltar. Conchologists' Newsletter No. 57, pp. 492-498.

3. Van Aartsen, J.J., Menkhurst, H.P.M.G., Gittenberger, E. The marine Mollusca of the Bay of Algeciras, Spain, with general notes on Mitrella, Marginellidae and Turridae. Basteria, Supplement No. 2, 1984

Alexander Menez 1.5.86

CATALOGUE OF GENERA IN THE CLASS SCAPHOPODA

1. Introduction

It could never be said that the scaphopod molluscs were a neglected group, but over the last two decades they seem to have attracted considerable attention. Since 1960 there have been 4 reclassifications (Ludbrook 1960, Emerson 1962, Palmer 1974, Habe 1977); 20 taxa above generic rank have been proposed, and 20 new genera.

Since the field is still in a state of active ferment, this is hardly time for yet another classification. However, there does seem to be a case for a 'state of play' report and, since the Conchologists' Newsletter has a wide circulation, this would seem to be the appropriate place for it.

Up to the time of writing the class Scaphopoda contains 50 genera, most of which are acknowledged by scaphopod workers as both taxonomically valid and systematically useful. Only one genus is regarded by the author as probably not a scaphopod.

The catalogue includes all the valid genera proposed from Dentalium Linné 1758 until March 1986; both fossil and living genera are listed, the former marked by an asterisk if known only as fossil. This is followed by a list of all the taxa proposed above generic rank, together with a few brief remarks.

Since a bare catalogue, lacking illustrations, makes very dull reading, the generic list consists merely of the genus, author and date followed by its type species. Further elaboration would go beyond the purpose of this interim report.

2. Alphabetical list of scaphopod genera - to March 1986

- Antalis H. & A. Adams 1854: type sp. Dent. entalis Linné 1758.
Anulidentalium Chistikov 1975: type sp. Anulidentalium bambusa Chistikov 1975.
Bathoxifus Pilsbry & Sharp 1897: type sp. Dent. ensiculus Jeffreys 1877.
Cadulus Philippi 1844: type sp. Dent. ovulum Philippi 1844.
Calliodentalium Habe 1964: type sp. Dent. crocinum Dall 1907.
*Calstevenus Yancey 1973: type sp. Calstevenus arcturus Yancey 1973.
*Coccodentalium Sacco 1896: type sp. Dent. radula Schroeter 1784.
Compressidens Pilsbry & Sharp 1897: type sp. Dent. pressum Pilsbry & Sharp 1897.
Compressidentalium Habe 1963: type sp. Dent. hungerfordi Pilsbry & Sharp 1897.
Costentalina Chistikov 1982: type sp. Costentalina elegans Chistikov 1982.
Dentalium Linné 1758: type sp. Dent. elephantinum Linné 1758.
Dischides Jeffreys 1867: type sp. Dent. biffisum S. Wood 1848.
Eboreidens Chistikov 1975: type sp. Dent. lacteum Deshayes 1825.
Entalina Monterosato 1872: type sp. Dent. tetragonum Brocchi 1814.
Entalinopsis Habe 1957: type sp. Dent. nivolum Kuroda & Kikuchi 1933.
Episiphon Pilsbry & Sharp 1897: type sp. Dent. sowerbyi Guilding 1834.
Fissidentalium Fischer 1885: type sp. Dent. ergasticum Fischer 1882.
*Fustiaria Stoliczka 1868: type sp. Dent. circinatum J. de C. Sowerby 1823.
Gadila Gray 1847: type sp. Dent. gadus Montagu 1803.
Gadilina Foresti 1895: type sp. Dent. triquetrum Brocchi 1814.

- Gadilopsis Woodring 1925: type sp. Ditrupa dentalina Guppy 1874.
Graptacme Pilsbry & Sharp 1897: type sp. Dent. eboreum Conrad 1846.
Heteroschismoides Ludbrook 1960: type sp. Dent. subterfissum Jeffreys 1877.
Laevidentalium Cossmann 1888: type sp. Dent. incertum Deshayes 1825.
Lentigodentalium Habe 1963: type sp. Dent. variabile Deshayes 1825.
 *Lobantale Cossmann 1888: type sp. Dent. duplex DeFrance 1819.
Megaentalina Habe 1963: type sp. Megaentalina teramachii Habe 1963.
Omniglypta Kuroda & Habe 1953: type sp. Dent. cerinum Pilsbry 1905.
 *Paleodentalium Gentile 1974: type sp. Paleodentalium kansasense Gentile 1974.
Paradentalium Cotton & Godfrey 1933: type sp. "Dent. intercalatum Gould 1859"
 [misidentification, genus actually based on shell of Dent.
bednalli Pilsbry & Sharp 1897].
Pertusiconcha Chistikov 1982: type sp. Dent. callithrix Dall 1889.
Pictodentalium Kira 1959: type sp. Dent. formosum Adam & Reeve 1848.
Plagioglypta Pilsbry & Sharp 1897: type sp. Dent. undulatum Münster 1844.
Platyschides Henderson 1920: type sp. Cadulus grandis Verrill 1884.
Polyschides Pilsbry & Sharp 1889: type sp. Cadulus tetraschistus Watson 1879.
 *Prodentalium Young 1942: type sp. Prodentalium raymondi Young 1942.
 *Progadilina Palmer 1974: type sp. Dent. trigonale Moore 1866.
Pseudantalis Monterosato 1872: type sp. Dent. rubescens Deshayes.
Pulsellum Stoliczka 1868: type sp. Siphonodentalium lofotense M. Sars 1865.
 *Quasidentalium Shimanskij 1974: type sp. Quasidentalium opiparum Shimanskij 1974
Rhabdus Pilsbry & Sharp 1897: type sp. Dent. rectius Carpenter 1865.
Rhomboxifus Chistikov 1983: type sp. Dent. tricarinatum Boissevain 1906.
 *Rhytidentalium Pojeta & Runnegar 1979: type sp. Rhytidentalium kentuckyensis
 Pojeta & Runnegar 1979.
Sagamicadulus Sakuri & Shimazu 1963: type sp. Sagamicadulus elegantissimus
 Sakuri & Shimazu 1963.
Siphonodentalium M. Sars 1859: type sp. Dent. lobatum G.B. Sowerby 1860.
Solenoxiphus Chistikov 1983: type sp. Solenoxifus striatulus Chistikov 1983.
Spadentalina Habe 1963: type sp. Dent. tubiforme Boissevain 1906.
Striocadulus Emerson 1962: type sp. Cadulus albicomatus Dall 1889.
 *Sulcogadila Moroni & Ruggieri 1981: type sp. Sulcogadila caprotti Moroni &
 Ruggieri 1981.
Wemersoniella Scarabino 1986: type sp. Wemersoniella turnerae Scarabino 1986.

In addition, the following genera are 'in press'.

- Annulipulsellum Scarabino: type sp. Annulipulsellum nicolasi Scarabino.
Bathycadulus Scarabino: type sp. Bathycadulus florenciae Scarabino.
Fissipulsellum Scarabino: type sp. Siphonodentalium teres Jeffreys 1877.
Striopulsellum Scarabino: type sp. Siphonodentalium minimum Plate 1906.

I am grateful to V. Scarabino for permission to mention these genera.

The following taxa above generic level have been proposed.

- Order Dentalioida Palmer 1974
 " Siphonodentalioida Palmer 1974
 " Gadilida Starobogatov 1974
 " Plagioglyptida Chistikov 1979

 Family Eboreidentidae Chistikov 1975
 " Episiphonidae " "
 " Gadilinae " "
 " Omniglyptidae " "
 " Quasidentaliidae " "
 " Rhabdidae " "
 " Entalinidae " 1979
 " Wemersoniellidae Scarabino 1986

Super family Quasidentalioida Chistikov 1975

" Rhabdoidea " "

Sub family Anulidentaliinae Chistikov 1975

" Calliodentaliinae " "
" Episiphoninae " "
" Lobantalinae " "
" Gadiliniinae " 1980
" Heteroschismoidinae " 1982

3. Remarks

In the generic list we may note that Rhytidentalium, from the Mid. Ordovician of America, is the earliest known scaphopod. Published figures of Quasidentarium indicate that it is probably neither a scaphopod nor even closely related to the class. The ordinal and familial list show what is undoubtedly an over elaboration of the systematic structure at the family level and perhaps at the ordinal level. Anyone undertaking a reclassification of the Scaphopoda will not be short of material to play with.

Scaphopods have a long geological history beginning in the Mid. Ordovician (470 million years) but are rare throughout the Palaeozoic. During the Mesozoic period (245-72 million years) they had a constant presence but were uncommon until Mid. Cretaceous, when the first cadulid appeared in the Gault Clay. From the beginning of the Cenozoic scaphopods increased both in numbers and diversification; the increase appears to be exponential. Some deep water dredge-hauls show an amazing number of small siphonodentaliid scaphopods, outnumbering all other animals except foraminifera. There is probably little danger that they will ever challenge man's supremacy on this planet; nevertheless, I will be keeping an eye on them.

4. References:

- Emerson, W.K. 1962. A Classification of the Scaphopod Mollusks. Journ. Paleont. 36(3): 461-482, 5 pls, 2 text figs.
Habe, T. 1977. Systematics of Mollusca in Japan. Bivalvia and Scaphopoda. xiii pls 372 pp.
Ludbrook, N.H. 1960. Scaphopoda in, Knight, J.B., et al., Treatise on Invertebrate Paleontology, pl. I, Mollusca 1, pp. 137-141, figs. 28-30.
Palmer, C.P. 1974. A Supraspecific Classification of the Scaphopod Mollusca Veliger 17(2): 115-123, figs. 1-4.
The Zoological Record; Section 9, Mollusca; Volumes 111-120, 1974-83.

C. P. Palmer

VERTIGINIDAE AND VALLONIIDAE FROM ÅKE HOLM'S AND ÅKE ANDERSON'S

EAST AFRICAN COLLECTIONS

Dr. Åke Holm of the Natural History Museum, Stockholm, collected in East Africa over a period of nearly 50 years, mainly concentrating on spiders but also finding a considerable number of molluscs. Most of his mollusc collection was sent to me some years ago by Dr. Åke Anderson and I have named them up as best I can. The number of species per tube varied from one to over twenty and it has been impractical to separate most of them although a few very interesting specimens have been put into individual tubes. A book of determinations has been prepared and will be sent to Stockholm when the collection is finally returned. Several papers and notes have already been published and are listed for convenience in the references (Verdcourt,

1981, 1982a, 1982b, 1983, 1985a & 1985b).

A large number, however, cannot be named until the respective genera have been revised, but even without precise specific identifications material can have considerable zoogeographical interest. The range of several genera is extended by these records. The time has long past when new species should be described willy nilly from such collections unless they are so distinct that there could be no possible confusion. In the pupillids this is certainly the case compounded by the unfortunate fact that the fluids used for collecting spiders are definitely quite unsuitable for preserving molluscan shells. Much of the collection has unfortunately suffered from these fluids. Holm, however, collected several minute pupillids etc. and it is essential that as much data as possible is extracted from them. I have, therefore, dealt with them without describing new species. Future monographers will at least know of the existence of the material. The records have been supplemented by drawings as far as possible (the scales represent 1 mm in each case). Dr. W. Adam of the Institut Royal des Sciences Naturelles de Belgique, who has a detailed knowledge of African pupillids, has kindly also examined most of the specimens. Most important of all, the localities and figures may enable future collectors to obtain more adequate material. It is very clear that many more small species are to be found, particularly at high elevations in East Africa, by using sieving techniques.

Negulus kenianus (Preston). Fig. 1.

Kenya. Aberdare Mts., 3 km. NNW. of Kabage, 2250 m., 3 Mar. 1969, leg. Å. Holm 199.

A single small toothless shell about 2.3 x 1.2 mm. agrees fairly closely with a paratype of this species preserved in the British Museum (Nat. Hist.). Dr. Adam agrees it resembles the description and figure given by Preston but has no other material for comparison. I have seen no other material but it will probably prove to be much more widespread. Compared with the paratype there are some differences in shape, presence of traces of spiral striae, an extra whorl and an open umbilicus but these are probably all of little significance although there may well prove to be different subspecies on different mountains.

Pupilla sp. Fig. 2.

Kenya. Lake Naivasha, 1885 m., 18 Feb. 1969, leg. Å. Holm 164.

Material too poor for identification. Although sinistral it is not P. duplicata, being more cylindrical. I wondered if it could be a sinistral P. fontana which species occurs at Naivasha. Adam suggested it resembled P. tetradus. More material should be forthcoming from such a well-visited locality.

?Pupilla

Ethiopia. 90 km. W. of Addis Ababa, 2450 m., 13 Feb. 1969, leg. Å. Holm 162.

A badly damaged shell without an aperture, 2 x 1.5 mm. with a parietal lamella running upwards throughout the shell.

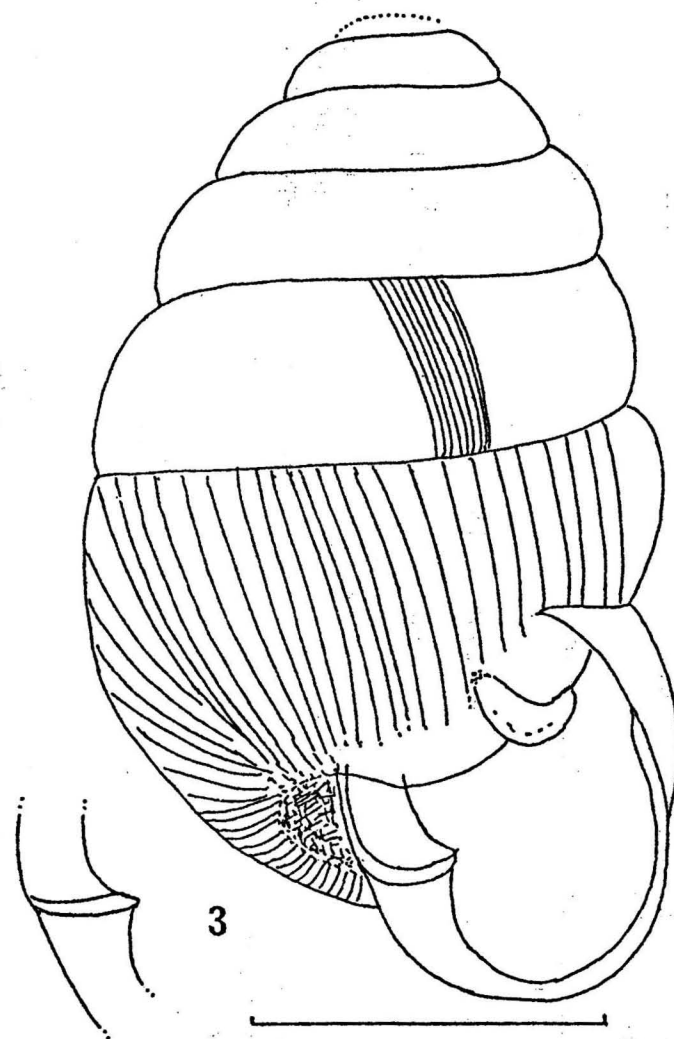
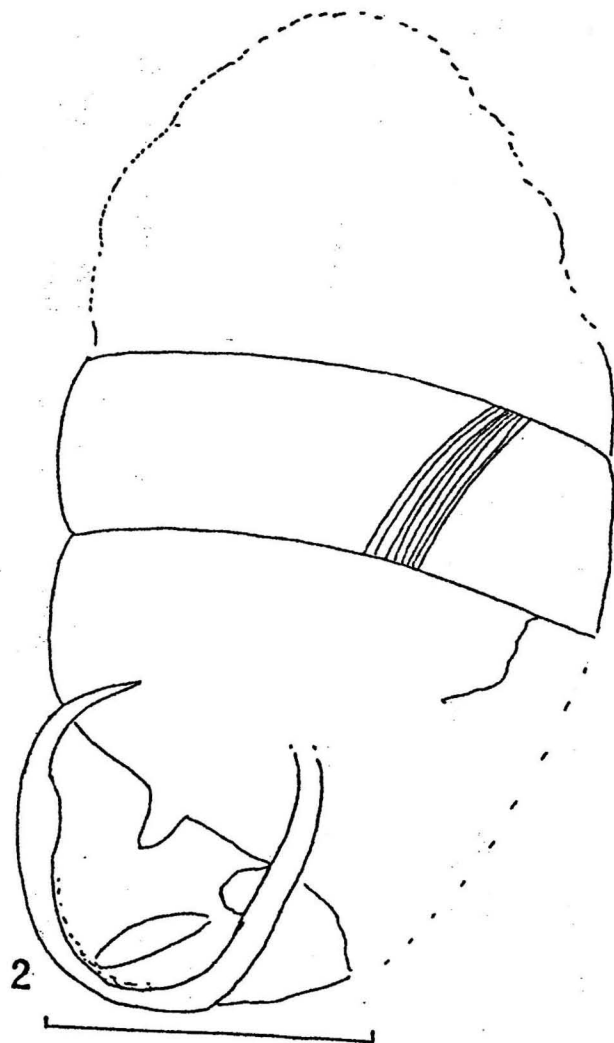
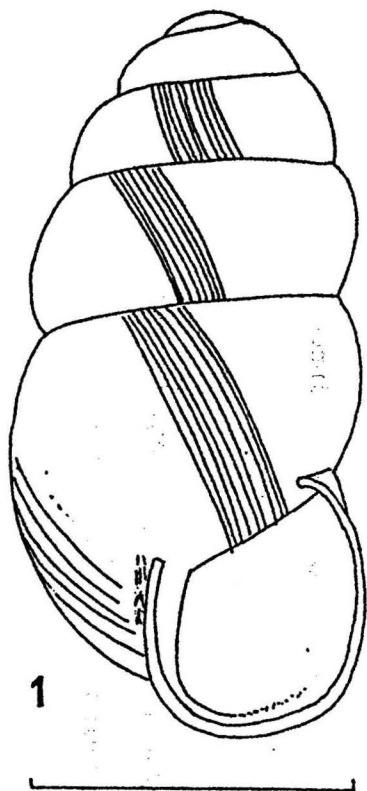
Pupoides coenopictus senaariensis (Pfeiffer)

Kenya. 22 km. N. of Mombasa, Kikambala Beach, 30 Jan. 1973, leg. Å. Holm 286.

A common species but much more knowledge of its distribution is required.

Lauria desiderata Preston (= alluaudi Germain). Fig. 3.

Kenya. Mt. Elgon, E. side, Kimathon R., on leaves of Senecio elgonensis, 3320 m.,



29 Jan. 1975, leg. Å. Anderson; Mt. Elgon, E. side, on Erica arborea, 3100 m., 8 Jan. 1971, leg. Å. Holm 264.

Type material in the British Museum is in poor condition but the specimens agree quite well.

Lauria cf. desiderata Preston (or closely allied). Fig. 4.

Ethiopia. Managasha National Park, 2600 m., 10 Feb. 1969, leg. Å. Holm 157.

The shell is about 3 x 1.5 mm. characterised by the widely reflected peristome; the columella lamella is obscure in adult specimens but very obvious in some juveniles. It differs from Lauria wouramboulchiensis Connolly, the type of which I have studied in the British Museum, in its more tapering spire and columella fold. Dr. Adam considers it resembles L. desiderata.

Lauria cf. desiderata Preston. Fig. 5.

Tanzania. Ngorongoro Crater Rim, 2250 m., 19 Mar. 1969, leg. Å. Holm 223 & 224.

Dr. Adam has suggested that this could be a small form of L. desiderata. It is probably the first record of a Lauria from the territory.

Lauria sp. Fig. 6.

Kenya. Mt. Marsabit, Lake Paradise, Crater Rim, 1400 m., 1 Feb. 1969, leg. Å. Holm 150.

This specimen was unfortunately lost but it should not be difficult to obtain more from an area now well visited by tourists.

Lauria sp.

Kenya. Mt. Elgon, E. side, 2700 m., 15 Jan. 1965, leg. Å. Holm 74.

Too damaged to be of any value.

?Lauria sp. Fig. 7.

Kenya. Aberdare Mts., Kabage Forest Station, 2300 m., 4 Mar. 1969, leg. Å. Holm 202.

Shell just under 3 mm. tall with no denticles; too big for Truncatellina and wrong shape for Pupisoma. Dr. Adam agrees it could be an immature Lauria.

?Lauria sp. juvenile.

Kenya. Mt. Elgon, E. side at Suam Saw Mill, 2500 m., 26 Dec. 1964, leg. Å. Holm 29.

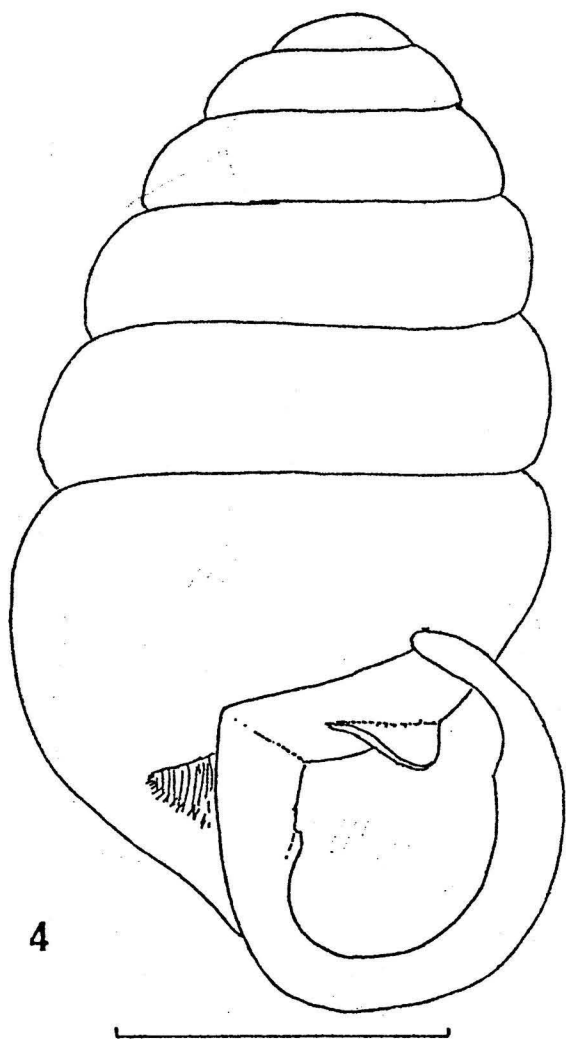
Has a parietal fold, columella fold and inner lamella.

Lauria.

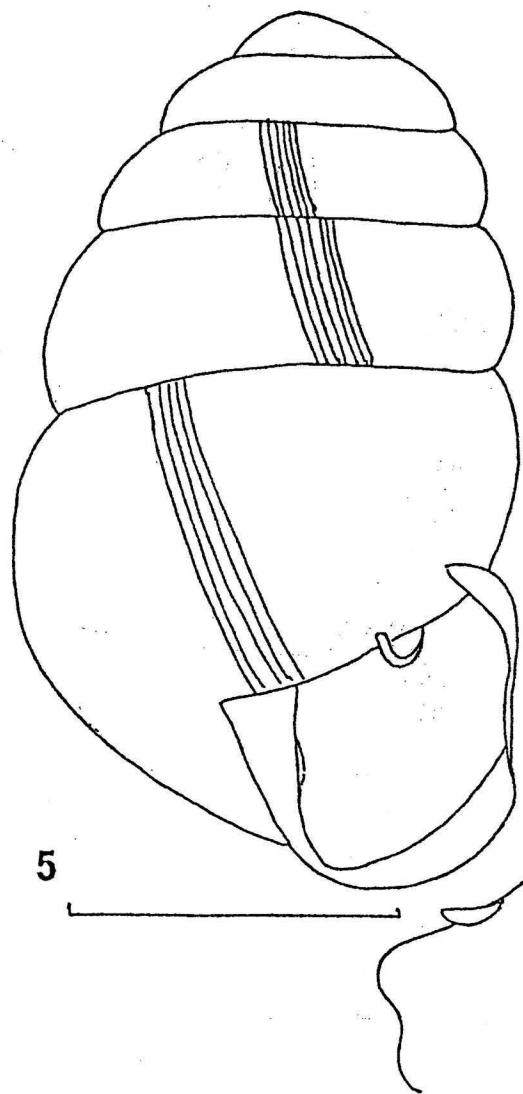
Pupillid juvenile.

Kenya. Mombasa, Bamburi, 19 Apr. 1938, leg. Å. Holm.

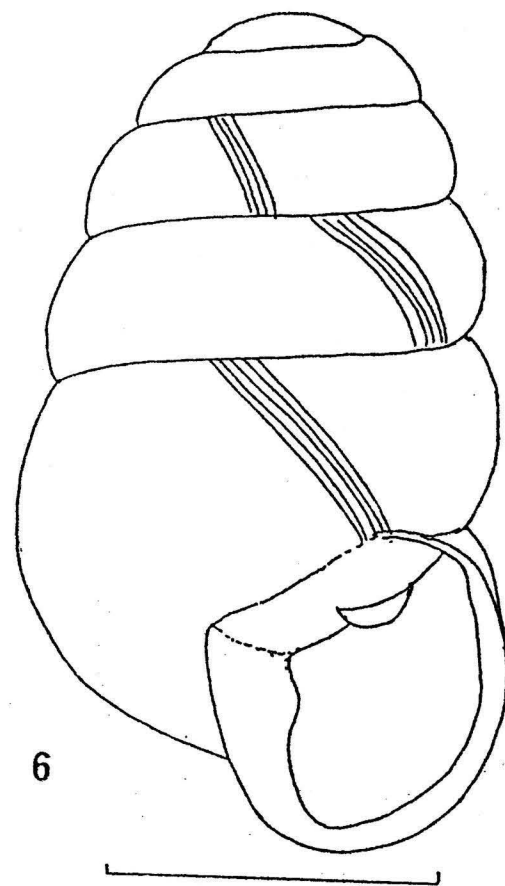
Finely closely striate and very obtuse.



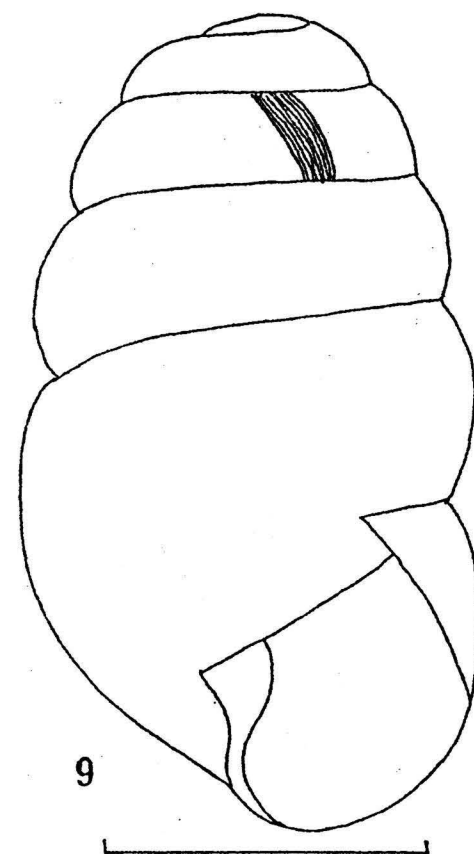
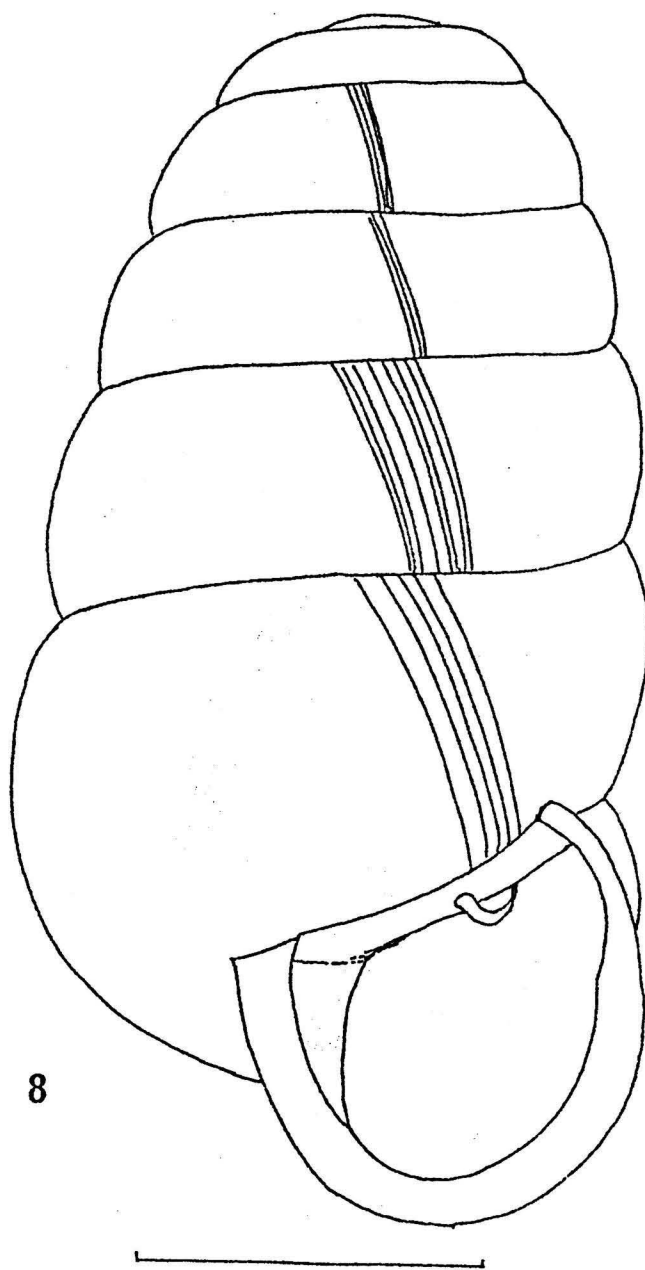
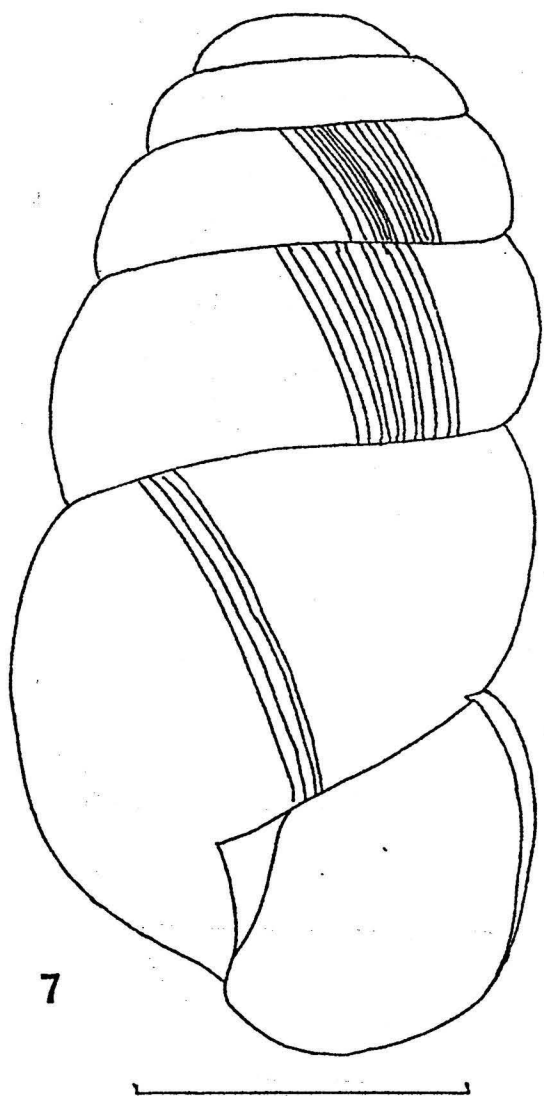
4



5



6



Pupisoma sp. Fig. 8.

Tanzania. Kilimanjaro, Peters' Hut, sieved from moss on Senecio, 3280 m., 23 June 1948, leg. Å. Holm 242.

Shell about 3.5 x 2 mm. with a weak parietal fold and in juveniles a fold visible on the columella as well. Allied to P. renschi K.L.Pfr. but different; also different from another species found on Mt. Kenya by Dr. Malcolm Coe. Adam reports that it is a species he has not previously seen.

?Pupisoma sp. Fig. 9.

Kenya. Aberdare Mts., 3 km. NNW of Kabage, 2250 m., 3 Mar. 1969, leg. Å. Holm 198.

A toothless shell about 2.5 x 1.4 mm., excessively finely striate; too broad for a Negulus.

Acanthinula cf. expatriata Preston

Kenya. Mt. Elgon, S. side at Kimilili R., 2420 m., 22 Jan. 1965, leg. Å. Holm 98; Mt. Kenya, Naro Moru Track, Meteorological Station, 3050 m., 11 Jan. 1975, Å. Anderson (+ topotypic); Milimambogo, forest, brook litter, 1500 m., 6 Dec. 1977, leg. Å. Holm 380.

Also some further specimens were found in a bottle containing tubes broken during transit; these could have come from Mt. Kenya, S. Kulal or Ngurdoto Crater, Tanzania and until the species is found in either or both of these last two mentioned localities it is assumed that they came from Mt. Kenya.

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B. Verdcourt

AN OUTING IN GLOUCESTERSHIRE, 26 APRIL 1986

Seven Conchological Society members met in the mid-Cotswolds on the first real Spring day to look at sites in the area. The first objective was to examine the Gloucestershire Trust for Nature Conservation (GTNC) Protected Site where Lauria sempronii had been found in 1985 (J. Conch. Lond. 32, 3 (1986) p. 201. Spring gales had blown a large piece of ivy off the wall, but otherwise it was in the well-vegetated condition seen last year. All of us noted that the wall had a very diverse fauna compared with those immediately adjacent. We had no difficulty in finding L. sempronii on the less ivy-covered parts of the wall, and its accompanying

molluscs such as Vertigo pusilla. No L. sempronii were found on other walls in the vicinity. Nearby road verges and a churchyard produced a number of species not recorded in 1985, notably Arion fasciatus new to v.c.33, Oxychilus helveticus which is uncommon in the west Cotswolds, Balea perversa and Macrogastra rolphii.

After lunch we recorded mollusca in the GTNC's combined Siccaridge Wood and Sapperton Valley Nature Reserves in SO/9303. Siccaridge Wood, 67.5 acres, covers the top of a small hill and the north slope of the Frome valley down to the disused Thames-Severn Canal. The Sapperton valley reserve covers a stretch of the disused canal, its towpath and drystone boundary walls and some small, damp, ungrazed meadows between the canal and the river Frome. The area offers a very rich variety of habitats from wetland, through primary woodland, to dry limestone with the valley bottom being sheltered and humid. It is thus not surprising that the land mollusc fauna is also rich with 59 species recorded since 1968, of which 52 were found on 26 April when time only permitted us to explore 400m or so along the towpath and adjoining areas of the wood. Not only did we record seven species new to the reserves - Vallonia excentrica, Punctum pygmaeum, Arion subfuscus, A. distinctus, Milax budapestensis, Limax cinereoniger and Cecilioides acicula - but we also reconfirmed earlier records of such old woodland species (in Gloucestershire) as Ena montana, Phenacolimax major and Helicigona lapicida. Two species earlier recorded in open screes higher up Siccaridge Wood, Abida secale and Candidula intersecta, were found on boundary walls and old lock structures by the canal. Some invasion of the old canal bed by the apparently mollusc-free Frome, removal of dead elms and increased public use of the towpath, may all have contributed to some drying out of the east end of the Sapperton Valley Reserve and account for our failure to find Carychium minimum and Zonitoides nitidus which on 10 May 1986 were still present further west in the reserve.

The final visit of the day was to Tarlton (ST/9599) to add common species records in an otherwise poorly recorded square. Arion fasciatus was found again (this time new also to v.c.34) and most of the objectives were achieved. In the time available it was not possible to relocate a 1920s site for Vertigo pusilla in or near the village.

I would like to thank the owners of the Protected Site for permission to examine the wall, and the GTNC for agreeing to the visit to the wall and to recording on their reserves.

David Long

REPORT ON THE FIELD MEETING HELD IN THE WEYMOUTH AREA 21/22 JUNE 1986

Saturday 21st. June saw nine members of the Society gathered together for what has now become an annual pilgrimage to the collecting delights of the Weymouth area. This year the visit was extended in time to cover two days rather than one, making it possible to shore collect as well as go out dredging. Some of the party travelled down on the Friday enjoying a calm bright summer's evening as we drove through the beautiful countryside of Hampshire and Dorset. On arriving at Weymouth, however, we stepped out of the car into a brisk wind. The 10 o'clock weather forecast was not particularly encouraging with a strong easterly wind promised for the next day.

With one member deciding to stay on shore, the remaining eight members set sail on the good ship "Black Tigress" just after 9 a.m. Outside the harbour, the full effect of that strong easterly wind was felt and an animated discussion took place as to where we should go. The shelter of Portland Harbour had its obvious attractions but it was accepted that the Navy and, more particularly their underwater

cables might not be too appreciative of the dredge's attention and course was set E.N.E. towards Ringstead and White Nothe.

We all settled down to an exhilarating journey, some glad that they had taken their sea-sickness pills, some wondering whether the sausage, bacon, egg and fried bread was such a good idea after all. No matter, everyone was still upright and keen to go as the dredge went down for the first time a mile or so off White Nothe. With a smaller mesh dredge than last year the first haul was very satisfactory with several cwt. of stony seaweed (Lithothamnion calcareum) and shells dumped on the after-deck to be eagerly pounced on by eight determined collectors. (More of what was found later) However the boat was now stationary and was moving to what the boatman referred to as a "lazy swell". This together with bending down amongst the very interesting but somewhat smelly dredgings soon sorted out "the men from the boys". In fact, although there were four men and four ladies present it turned out to be six boys and two men!

With enthusiasm slightly dampened by Mal-de-Mer, two further, equally successful, hauls were made in the same general area before a decision was taken to curtail the day's activities and return to harbour. It was surprising how the decision, plus the forward motion of the boat, plus the realisation that the pubs would still be open on our return to land soon improved everyone's spirits. Even so, the general feeling was still held that sea-sickness is physical rather than psychological.

Acknowledging that the story so far has more to do with Jerome K. Jerome than the science of conchology I had better let you know what we found.

Some species were obvious as soon as sorting commenced by reason of size and frequency - Glycymeris glycymeris, Laevicardium crassum, Venerupis rhomboides (a great variety of colour and pattern) Venus fasciata, Timoclea ovata, Aporrhais pes-pelecani (large and heavily encrusted) and the ubiquitous Crepidula fornicata. However the real delights were more subtle. At home, after rinsing out in fresh water and drying, the residue was subjected to closer scrutiny both by eye and binocular microscope. Some of the particular delights were Caecum imperforatum and C. glabrum, Cantharidus montagui and Mangelia attenuata. To stretch powers of identification - four Alvania species and nine members of the Pyramidellidae. My final total was 68 species adding 15 new species to my collection. A very worthwhile reward and adequate compensation for the misery of sea-sickness. (Yes, I was one of the boys) A full list is being prepared and a note will appear in the Newsletter as soon as it is available.

Saturday afternoon was hot and sunny and, with the tide in, some of the party had a ramble on the Isle of Portland. No shells but the pleasure of orchids amongst the profusion of wild flowers along the cliffs. We all met for dinner in the evening mystifying the other diners by drawing up an initial species list of our findings so far. The evening ended with a wet dash to our respective hotels and guest houses through torrential rain and thunder.

Sunday dawned bright and sunny and we met at the car park on the road to Portland (688755). The first objective was the Chesil Beach side of the Fleet. However our progress westwards was barred by a fence and notice advising us that the area was closed to protect nesting terns. Respect for the demands of our naturalist colleagues overcame our collecting instincts and we contented ourselves by collecting outside the fence at 665757 where all the party were rewarded by specimens of Truncatella subcylindrica found amongst the pebbles and under seaweed at high water mark.

We then moved on to a point north of Small Mouth (669763). Here, at low water, we were able to wade out over sand flats in 2ft. of relatively warm water. In an

area with an extensive species list recorded, collecting conditions were not ideal. Nevertheless good specimens of *Venerupis aurea*, *Venerupis pullastra*, *Venerupis decussata* and *Venus verrucosa* were collected. The disappearance of the sun finally drove everyone ashore to end the weekend's activities.

Although weather and the domestic habits of the family *Sterna* (Terns) created the need to alter our plans somewhat, the weekend was unanimously voted a great success and one to be repeated - roll on 1987!

Bill Pocock

THAMES WATER TEDDINGTON FLOW PROPOSAL - PUBLIC ENQUIRY

Dr. Willing, our Conservation Officer, asked me if I could take his place at the public enquiry to be held on 3rd. June 1986 since he would not be able to do so. I agreed to do this and attended the pre-enquiry meeting held on 6th. May to draw up a programme and discuss procedures. It was clear the enquiry was expected to last three weeks and I could not possibly attend it all. I attended the first day of the enquiry and it was then clear that it would proceed faster than was originally anticipated and the programme need continual updating. I finally also attended on 10th. June to listen to the evidence of Mr. M. J. Andrews, the Thames Water Environmental Officer; time had also been set aside for our objection to be heard.

As a result of a request at the procedural meeting I prepared a statement of the concern felt by the Society. It was clear from the very thorough documentation available before the enquiry began that our fears were probably groundless. A detailed mathematical model of the river showed that the changes in tide levels at Syon if the proposals were implemented would only be about 4 cm i.e. far less than the variation due to other causes. Nevertheless, I considered it reasonable to agree to continue our objection and request time to explain our concern. After hearing all the evidence from a variety of officials, particularly Mr. Andrews who is undoubtedly as concerned about the Syon SSSI as anyone and who knows it well, I formally withdrew our objection. Mr. Andrews investigated the ecological effects of the proposed restriction of water flow over Teddington Weir most thoroughly (Document TWA 40: Teddington Flow Proposal : Possible Ecological Effects, April 1986). He also found literature references missed by myself and others showing that *Perforatella* is a relative newcomer to N.W. Germany and almost certainly to this country in contrast with what I have previously stated.

My statement and the Thames Water's 'Response to Objection of the Conchological Society of Great Britain and Ireland (Document TWA 86)' add to the knowledge of the ecology of the species and its history and are available from the Newsletter Editor to anyone interested (large s.a.e. please). I think members will agree with me that our objection was treated with great seriousness and much effort expended on answering it. I was enormously impressed with the whole enquiry and the quite amazing thoroughness with which it was conducted. A pleasant finale was a visit to the site with both inspectors on the evening of the 18th. June when Mr. Andrews and I were able to show them the snail and all the herons took off en masse.

B. Verdcourt

JOHN O'NEILL MILLOTT, Ph.D., B.Sc., A.R.I.C., A.M.I.Min.E.

John O'Neill Millott though not a member of the Conchological Society at the time of his death was a member for many years and only relinquished membership when

eyesight trouble precluded conchological work.

He was born 8 September 1902 at Mansfield, Notts., educated at Brunt's School, Mansfield and University College, Notts. (1st. Class Honours Chemistry 1923). Research in inorganic chemistry earned him a Ph.D. in 1931.

A year as Research Assistant at the Government Fuel Research Station at Greenwich (now wound up) was followed by three years at the Department of Scientific and Industrial Research Coal Survey Laboratory at Nottingham. From 1930 until his retirement in 1962 he was in charge of the Coal Survey Lab. first at Stoke-on-Trent and then Chester. He died in Chester on 24 July 1986.

He was a pioneer in the study of miospores of coal and papers by him appeared in the Journal of the Chemical Society, the Journal of the Physical Society, Journal of the Institute of Fuel, the Transactions of the Institute of Mining Engineers, and Fuel.

His lifelong interest in the Mollusca was almost confined to the British land and freshwater species, and he did much field-work from 1914 onwards. He discovered at Plemstall (Cheshire) the enigmatic deposit containing fossil *Dreissena*, and studied the molluscan fauna of the extensive tufa-deposit at Caerwys, north Wales. He received the Kingsley Memorial Medal from the Chester Society of Natural Science in 1952.

Some years ago he gave his conchological collections to the Ludlow Museum, and his conchological books were disposed of privately.

Nora McMillan, Liverpool Museum

DREISSENA POLYMORPHA (PALLAS) FOSSIL IN N.W. ENGLAND

Dreissena polymorpha (Pallas) is usually regarded as an alien species which has spread widely via canals in the last century. The fossil record is unsatisfactory (Woodward 1891, p.342; Kennard & Woodward 1903, pp.198, 201).

In 1949 J.O'N.M. found numerous valves of the species where a deep drain had been excavated in the valley of the river Gowy at Plemstall near Chester (NGR. approx. SJ45774). The specimens occurred under conditions suggesting a considerable age (see McMillan 1958 for details). Since publication of the 1958 note further information has come to hand and is here presented.

- 1). Dr. J. R. Earp, then of the Manchester branch of the Geological Survey wrote to N.F.McM. (in litt. 17.iii.1958) that he considered that there had certainly been a mere between Plemstall Church and the Holy Well (which is beside the road leading to the church) as the very local rapid thickening of the peat hereabouts was good enough evidence of that. He thought also that possibly the shell-marl was restricted to the deeper part of the mere and was now mostly concealed by thick peat. Such shell-marls often occur very "patchily" under peat.
- 2). On 17.iv.1969 Garry Whitfield visited the site and obtained *Dreissena* valves from the stream-bed. His specimens (now in the Liverpool Museum) are in the same state of preservation as those taken in 1949.
- 3). On 25.vi.1970 J.O'N.M. saw 4 ft. of peat but no shell-marl just S. of the little road which ends at Plemstall Church.

This occurrence of numerous valves of *Dreissena* at Plemstall, near Chester, is a matter of some interest in view of the present day distance between the nearest point of the Shropshire Union canal in which *Dreissena* occurred in the 1850's (Byerley 1854).

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Nora McMillan & J.O'N. Millott

SHETLAND NON-MARINE MOLLUSCA

The following miscellaneous notes on some records of Shetland non-marine Mollusca are presented in the hope that someone will do something about them! (7th. Census refers to Ellis's, J.Conch.Lond. 23: 172-244, 1951. "Atlas" refers to the Atlas of the non-marine Mollusca of the British Isles (1976))

- Ovatella myosotis* (Drap.). Not in Atlas but recorded from Shetland by J.T. Marshall (J.Conch.Lond. 14: 68)
Lymnaea stagnalis (L.). Recorded from a maerl loch on Whiteness by R.H. Britten (The Natural Environment of Shetland, p. 126) and unfortunately repeated on p. 119 of The Natural History of Shetland (New Naturalist, 1980). The recorded specimens were apparently not retained.
Gyraulus laevis (Alder). Atlas record is pre-1950. Taken in the Loch of Sandwick, Whalsey, 6.vi.1972 NMCM.
Ancylus fluviatilis Müller. Not in Atlas and queried in 7th. Census. I believe this is an Oldham record but have failed to trace published record. Perhaps there are specimens in his collection?
Discus rotundatus (Müller). Recorded by Jeffreys (Brit.Conch. vol. 1, p. 219, 1862) ex "Zetland". Not in Atlas but in 7th. Census.
Aegopinella pura (Alder). Not in Atlas but in 7th. Census.
Clausilia bidentata (Ström). Lives in Tingwall valley but a record of Jeffreys (Brit.Conch. vol. 1, p. 279) should be noted - "Whalsey Skerries, Zetland". It is clear (Rept.B.A. Assoc. Adv.Sci. for 1863, p. 73) that Out Skerries (where there is limestone) was intended.
Pisidium henslowanum (Sheppard). With *Lymnaea stagnalis* q.v.

I realise that possibly the lack of more precise localities for some of the spp. mentioned above may have caused their absence from the Atlas.

Nora McMillan

POTENTIAL FOR SCALLOP CULTURE IN TASMANIA

While catches are declining in many of the major scallop-producing countries in the world, the Japanese industry is on the upswing - thanks to the development and gradual perfection of culture and controlled farming techniques.

After studying the methods it can be seen that, given certain basic conditions, the adaption of Japanese ideas to the Tasmanian situation could be a field worthy of experimentation. During May last year a pilot program to test the viability of the system under Tasmanian conditions was begun. But before these trials are described

a brief outline of the history and current state of the Tasmanian fishery is necessary to understand the possible potential involved in scallop culture.

Tasmania's D'Entrecasteaux Channel is an almost landlocked expanse of water stretching for some 40 miles, and once was the highest yielding area for scallops in Australia. It sustained a considerable catch rate for more than 30 years, until the introduction of the sputnik dredge in the early 1960s. Within three years the channel fishery was no longer viable and eventually was closed to commercial scalloping.

A lack of government controls in a number of areas generally is considered to have been the cause of the failure of the fishery; the introduction of the sputnik dredge and gross over-exploitation being the two major factors. Other not so readily accepted explanations include water pollution from apple sprays and sewage outfalls. (It is interesting that the Aomori Prefecture in Japan, one of the larger scallop producing areas, also produces Japan's biggest apple crop.) The D'Entrecasteaux Channel offers the greatest potential in Tasmania for scallop culture so it was important to find out if the area would still support a scallop population. This would also go some way towards proving the reason for the initial failure of the fishery.

With the permission of the Tasmanian Fisheries Development Authority, 1200 juvenile scallops were collected by dredge from the east coast and transported by road in special containers for transplanting in several different channel areas. It was hoped that the transfer of these juveniles would indicate a number of things: variation in growth rates between the transplant areas; a difference in growth with depth; and also growth variations with the type of growing system used. Most importantly it was hoped the transfer would indicate whether or not the channel was likely to support a future scallop population.

To test these hypotheses the Japanese long-line method of culture was used: that is, a horizontal line is suspended two fathoms below the surface and anchored at each end by 100 kilogram weights. The whole system is suspended from 30 cm (12 in) plastic floats. From the main line are hung lantern-shaped nets holding the juvenile scallops. A second suspension method tested was a relatively new idea first developed in Japan: the scallops are glued back to back against $\frac{1}{2}$ inch wide plastic packing tape which is then suspended from the main line.

Results have been encouraging in terms of growth rates. Those scallops fastened to the tapes showed an average of six millimetres growth in the first seven weeks. Those held in lantern nets only just replaced the damaged growing edges caused by falling from the self-tipping dredges. The difference in growth rates was due to the obstruction of water flow around the lantern nets which inhibited the filter feeding process of the scallop. These results went some way towards proving that the channel is capable of supporting the culture of scallops. The next step involved construction of special spat-collecting equipment to catch the settling scallops at the start of their benthic existence.

The equipment consisted of large onion-type bags with a mesh size of 5 x 4 mm filled with used monofilament netting, in this case shark mesh. The catching technique was based on the settling period of the larvae, which is about 40 days after fertilisation: at this stage the larvae settle to the bottom and make fast to the substrate by means of a byssal gland. It is during this period that the larvae drift into the onion bags, suspended underwater from the long-lines described earlier. The spats retain this position for about one month. Then they fall free of the mesh and settle to the bottom of the bags. Of course while in the bags the young scallops outgrow the mesh size and are therefore unable to escape. Japanese growers using this method obtain up to 20,000 spats in each bag, but 2,000 to 3,000 is probably a realistic figure.

During early September last year more than 600 collectors were placed in various areas along the east coast of Tasmania to try to catch spat for transfer to the channel. Indications to date are that the principle of spat collection will work in Tasmania but whether the numbers obtained will be enough to make the process viable remains to be seen. From samples taken so far each collector contained fewer than 50 spats. But for the system to operate economically each one should collect more than 100 spats. The relatively small numbers of spat being collected points to one disturbing factor - that there are insufficient adult scallops left on the sea bed to maintain the wild population let alone provide spat for culture. This is borne out by statistics of catch rates in this area of the east coast: they show a steady decline in the numbers taken by dredging, and a drastic decline in the numbers taken by commercial diving.

If the D'Entrecasteaux Channel is to be returned to anything like its former productivity, serious consideration has to be given to the production of scallop spat. The alternative is artificial culture in an aquarium-type environment in a shore-based hatchery for later distribution to growers and release into the open sea. Once the system has been established it would eventually become self-perpetuating, the adult scallops providing the new stocks for the bottom culture. This could lead in the long term to the gradual re-introduction of dredging, if on a much more restricted basis.

The research facility of the Tasmanian Fisheries Development Authority has recently proven the production of oyster spat. With the right amount of research into the adaption of techniques to the Tasmanian environment the establishment of a shellfish hatchery would greatly enhance the future of Tasmania's shellfish industry.

The techniques of artificial scallop production are well known and widely practised in Japan. There are at least three advantages over natural collection: control of spat production; control of culture time throughout the year; and removal of the uncertainties associated with natural spat collection. The adaption of these Japanese methods to Tasmania is only a matter of time. The building of the proper facilities for seed culture would be a move in the right direction. The facility could also be capable of producing oyster spat, something which is absolutely necessary if the future of the Tasmanian oyster industry is to be assured. Tasmania has ideal conditions for such a venture, and can also provide excellent conditions for farming the juveniles through to maturity.

By Adrian Cuthbertson, from 'Australian Fisheries', February 1979. (Submitted by Betty M. Smith)

GENERAL NOTES

CRIME LAKE

The extensive canal building era that took place between about 1760 and 1830, left industrial Lancashire with a very intricate network of such waterways, and these have gradually fallen into disuse. Many pumps, buildings and locks etc. have disappeared, so that all we are left with in some areas, are long thin ponds, overgrown with weeds and gradually silting up. They have been however, very suitable habitats for aquatic molluscs of all kinds. During construction of one of the local branches of the Manchester - Ashton canal, a small valley was dammed up and allowed to flood so that one side formed part of the canal itself. This became known locally as Crime Lake although it is really nothing more than a fair sized pond. For several years, Crime Lake was a good place for dipping for snails and possessed a healthy population with many different species, including Viviparus contectus (Millet).

Unfortunately, around June of 1984, a sewer became blocked and allowed sewage to overflow into the "lake", killing off all forms of aquatic animal life, most of the plants, and badly affecting ducks and diving birds which had nested in the surrounding reeds. The only thing that remained unaffected was a fringe of Reed Sweet-grass *Glyceria maxima* (Hartm.) Holmberg, round the edges of the water. I have visited this area fairly regularly since to see how long the effects of pollution will last. Imagine my surprise then, in August of this year (1986), to discover several *Aplexa hypnorum* (L.), in my scoop whilst dipping into the *Glyceria* fringe. I found no other species of mollusc. Now I have dipped in this water from time to time over the last 20-odd years and have never found *A. hypnorum* before, in fact the only other place I have found it, is at Martin Mere in West Lancashire, about 35 miles away. So how did this one particular species of mollusc come to be found in water that still smells foully when disturbed, and although it is said to be capable of surviving in water that is liable to dry up, how has it got there?

Wm. F. Edwards

CULTIVATING THE COQUILLE IN FRANCE

France, the country that put Coquille St. Jacques on menus round the world, is now trying to cultivate these tasty scallops to fill the gap between falling catches and rising demand.

According to Fish Farming International, results of a three-year experimental program to hand-rear wild-caught scallop spat have been encouraging. Scientists commissioned by the French Ministry for Maritime Affairs have carried out a number of experiments and believe they have now perfected a technique of catching and holding newly hatched scallops. They use sagging fine-meshed nylon nets which offer these tiny scallops the kind of support they apparently need during the first 20 days of life in open water.

If they can be grown to a less delicate size of two to three centimetres the scallops are tough enough to survive resowing in bulk. Fine-mesh nets, or spat sacks, used in the Bays of Brest and St. Brieuc on the Brittany coast each caught an average of 300 Coquille St. Jacques spat and 5,000 spat of a coarser species known locally as petonele.

Scallop stocks in the main fishing areas of Normandy and northern Brittany have been under increasing pressure in recent years, but even though some 30,000 tonnes might be landed in an average year demand always outstrips supply. However following the rearing experiments, figures of 50,000 to 80,000 tonnes of gourmet-class coquilles from the Bay of St. Brieuc alone and a further 7,000 tonnes of petoneles from the Brest Roads have been projected. Studies also have recommended extension of the usual closed season to allow extra growing time.

From 'Australian Fisheries' (Submitted by Betty M. Smith)

ASSISTANCE WANTED

A study of the marine shells of Senegal is being commenced by Marcel Pin, [REDACTED], Dakar, Senegal, with a view to writing a book on the shells of West Africa to supplement that of Maurice Nickles (1950).

He has the use of a research ship and solicits any technical assistance from interested members of our Society. Records of shells from that area would be useful to him and collaboration in the matter of identification is invited. The work will include re-appraisal of the collections of Nickles, Dautzenburg, Marchad and Monod.

WANTED ON LOAN

1). Any specimens of the white form of Calliostoma zizyphinum (shell with or without preserved animal) except from the following two localities; Clachan Sound on the West Coast of Scotland and Strangford Lough, Northern Ireland. Any information concerning localities would be gratefully received. I would be particularly interested in dredged deep water specimens. I would also be interested in examining specimens of the yellow (var. lutea) and purple varieties of Calliostoma zizyphinum.

2). I am hoping to carry out a survey of the molluscan fauna of Mulroy Bay, Co. Donegal, Eire. I would therefore be grateful if any member could provide me with information, or records of molluscs collected from this Bay, whether recent or historical.

Dr. Julia Nunn, [REDACTED], Belfast, Northern Ireland, [REDACTED]

FOR SALE

A very fine Victorian cabinet is available on sale to members. This has a framed and figured walnut front, and contains twelve beautifully made drawers 27" x 10" varying in depth from 1' 8" to 3½". Overall dimensions about 34" x 14½" and 39" high.

The cabinet contains a good but neglected collection of shells.

A local auctioneer has valued the whole at £350. Further details, together with photographs, are available from Mr. J. Lee, [REDACTED], Owlsmoor, Camberley, Surrey. (telephone [REDACTED])

CHRISTMAS 1986 & THE NEW YEAR 1987

The Newsletter Editor sends the Season's Greetings and Good Wishes for the New Year to every reader.

I will now make my annual plea for contributions of all kinds and length to maintain an interesting variety of material for your Newsletter. Don't forget that next March sees the one hundredth issue of the Conchologists' Newsletter so some of you may wish to see your items in that or the succeeding issues nos. 101 or 102. Everyone interested in the Mollusca must have some experience, opinion or information to impart, or just a request for help with some problem?

P. E. Negus

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE - ITZN 11/5

The following applications have been received by the Commission and have been published in volume 43, part 3, of the Bulletin of Zoological Nomenclature (6 October, 1986). Comment or advice on them is welcomed and should be sent c/o The British Museum (Natural History), London, England. Comments will be published in the Bulletin.

Case No.

- 2512 Megalonaias Utterback, 1915 (Mollusca, Bivalvia): proposed conservation by the suppression of Magnonaias Utterback, 1915.
2460 Ammonites neubergicus Hauer, 1858 (Cephalopoda, Ammonoidea): proposed conservation by the suppression of Ammonites chrishna Forbes, 1846.

ITZN 59 The following Opinions, rulings of the I.C.Z.N., have been published in the above volume.

Opinion No.

- 1410 (p. 249) Williamia Monterosato, 1884 (Mollusca, Gastropoda): conserved.
1414 (p. 258) Panopea Ménard de la Groye, 1807 (Mollusca, Bivalvia): conserved.

P. K. Tubbs, Executive Secretary

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March 1987

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Market Harborough,
Leicestershire, [REDACTED]

Produced by THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

THE NEWSLETTER THEN AND NOW - 100 ISSUES

Since this is the 100th. issue of the Conchologists' Newsletter, it seems appropriate to review the beginning and the progress of the Newsletter over the past 26 years. No. 1 appeared in January 1961 and consisted of four single-sided, foolscap sheets. The object was, as with similar periodicals, to provide a medium for articles, notes, reports and requests for information and exchanges and generally to facilitate communication between like-minded people. The first few issues were compiled by Michael Goodchild, still a member of the Society, and comprised about 5 or 6 pages each; they were not issued at regular quarterly intervals in those days.

When I took over in 1964, I managed to increase No. 10 to 9 pages and was able to include drawings of shells illustrating a Key to the Cardium. Gradually I succeeded in increasing the number of pages per issue. Naturally this depends entirely on the contributions submitted and here it is convenient to stress that there is scope in the Newsletter for material at all levels of knowledge and experience. Whether you are a professional zoologist or palaeontologist, an experienced amateur, a beginner or junior member - or even a non-member, your items can add to the variety and interest of each issue.

It was decided that 20 issues should form a volume and an index has been issued with each one, prepared in the past by the late Arthur Ellis of 'British Snails' fame, who provided much support and encouragement. The index to the current volume has been prepared by Dr. Bernard Verdcourt.

From the outset I have had two main aims. Firstly, accuracy, by which I mean trying to avoid as many as possible of the exasperating errors, typographical, grammatical or just plain stupid, which bespatter our newspapers, magazines and even books these days. Secondly, to produce the quarterly issues as promptly and regularly as possible. This helps to sustain interest and is essential when dates are involved for lectures, field meetings and Society business.

There have been a few changes over the years, none very dramatic. For reasons of economy we changed to double-sided instead of single-sided sheets and went to A4 format in place of the original foolscap. A pre-printed heading was introduced to improve the appearance of the Newsletter. Advances in the technical means of preparing stencils for duplicated material have given more scope for reproducing drawings - even fine line illustrations such as in the Key to the Cephalopoda by Dr. Muus - and an improved appearance all round. It has been a particular advantage that Donald Armsworth (the Speedwell Press) has prepared the stencils and duplicated the Newsletters from January 1961 up to the present, thus providing continuity with an accurate and flexible service.

During our centenary year, 1976, we succeeded in producing issues up to 22

pages and the average now ranges from 20 - 24 pages. Occasionally a notice on coloured paper appears attached to the front of the Newsletter to attract attention to events and dates and to provide a sheet which can be detached and folded in a diary.

So, looking to the future, I believe the continued success of the Conchologists' Newsletter depends on involvement of as many members as possible. There is a tendency for many people to be merely spectators of their chosen sport or sphere of interest. But if we all remain on the side-line there will be nothing left to watch!

P. E. Negus

ALPANA AND THE SACRED CONCH

ALPANA (also: ALPONA, ALIMPAN) may be described as "rice painting" though neither paint nor brush are used. A paste made of rice flour and water, or soaked rice, of a thick yet runny consistency serves as "paint". A small piece of cloth is dipped into the liquid and held in the palm of the hand by the thumb. Pressure on the cloth makes the paste run down one of the two middle fingers which guides the flow into the desired pattern. The whole process is not unlike decorating the top of an elaborate iced or cream cake.

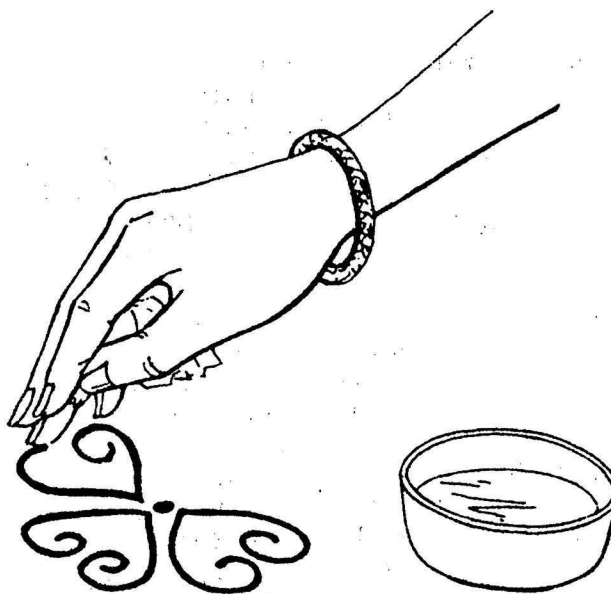
Alpana is chiefly a ritual-ceremonial art form used in the worship of deities or on special occasions like weddings and New Year's Day. All these artistic creations therefore acquire a special sanctity and have an "auspicious" character. Even elements of "magic" are clearly discernible.

Archaeological finds seem to indicate that the practice of Alpana is about 5000 years old and goes back to pre-vedic times. Ancient signs and symbols are almost identical to some of those used in modern Alpanas.

Alpana is done only by women who start learning the requisite skill as very young girls. There are even some drawings and ceremonies which must not be carried out in the presence of men.

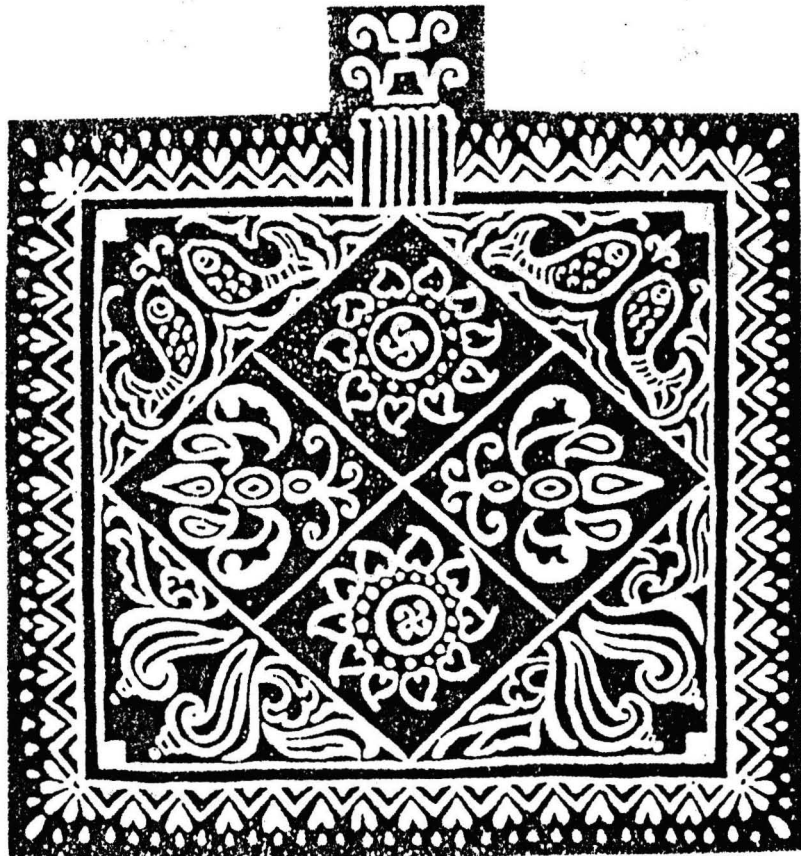
The place for an Alpana could be on the ground in front of the house for ceremonial and "Good Luck" purposes, or on the floor inside the room in which a particular worship is going to take place. Sometimes pieces of furniture like an altar or ceremonial stools (pidi) may be decorated with a pattern fitting the occasion.

One of the most popular figures of the Hindu pantheon is Lakshmi, the goddess of wealth and prosperity; in this capacity she is specially connected with rice, its growth and harvest - the giver of all good things. Alpana, therefore, plays an



important part in the worship (puja) of Lakshmi.

Lakshmi, like Aphrodite, rose from the depth of the ocean, and in memory of her origin she is usually depicted with an assortment of seashells at her feet. The number and species may vary, but one shell is never missing: the Sacred Chank (*Turbinella pyrum*) which is of special importance in this connection: it is an inseparable part of all the objects required for Lakshmi puja. But even apart from this, no house altar is complete without the presence of a sacred chank. It is blown by the pious housewife every day at sunset as well as on all joyous occasions. As a ritual object it takes a significant place in the thinking of all Hindus and time and again appears in Indian art in ever-changing forms. The following examples illustrate the ingenuity, imaginativeness and artistic skill with which the theme of the sacred conch is treated, all the more astonishing in view of the difficult technique involved.

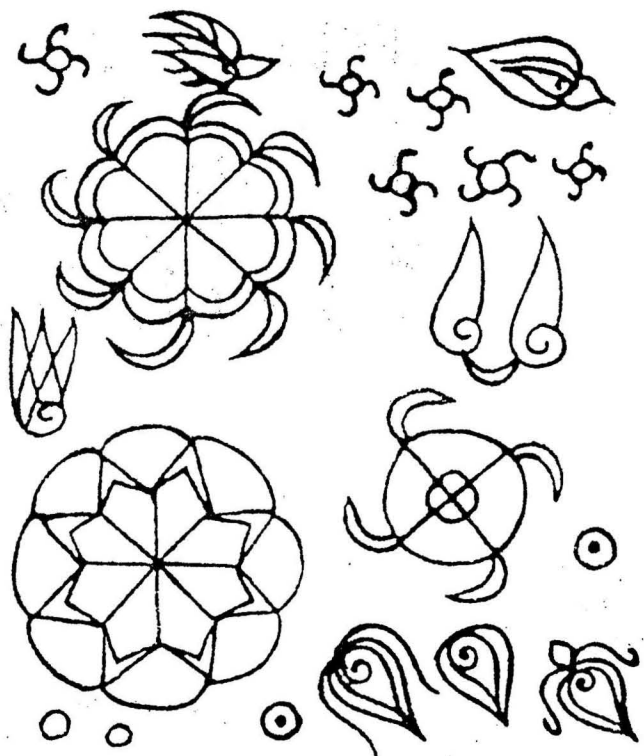


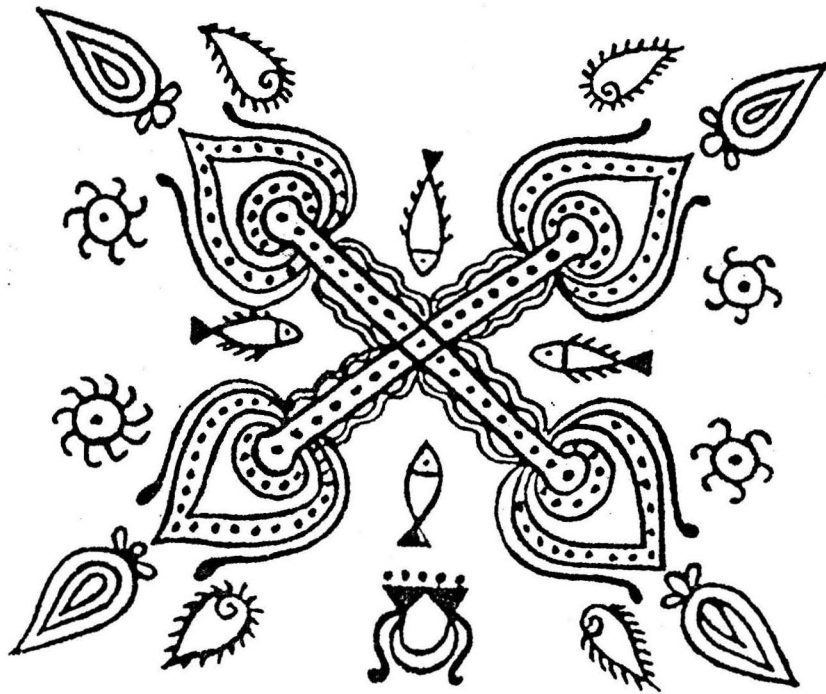
The Alpona illustrated at the top of the next page is executed on a Pidi (low wooden seat) on which is placed the offering plate at the worship of Lakshmi. The drawing represents a stylised house with an open door. The goddess of fortune is believed to enter and leave her foot-marks on the courtyard, the plinth of the house and on the floor.

All the articles displayed are part of a married woman's outfit: necklace, mirror, comb, vermilion pot (bottom right hand corner), and (bottom left hand corner) a "stibium-spoon" (for blackening eyes) and a rather stylised conch. The conch-shell is an essential object of the seat of Lakshmi. It here stands for both the trumpet and the ceremonial bangles made of it.

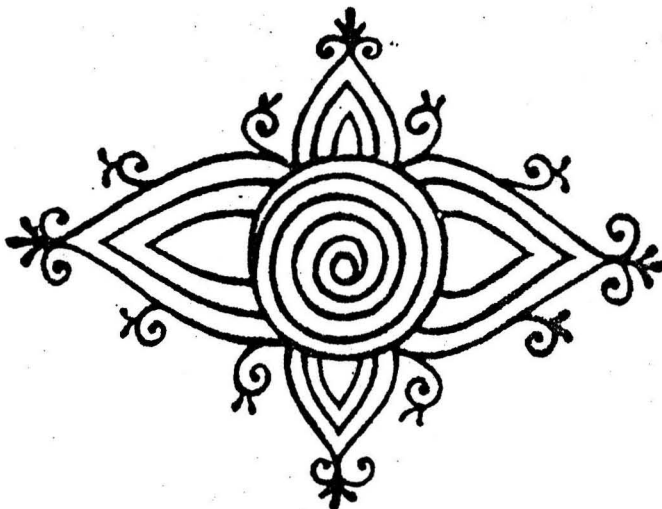


This Alpona consists of three lotuses, a number of butterflies (highly stylised), a number of crabs, a few stars and a pair of conch shells joined by a loop. It is not associated with any particular rite.





Alpona for the worship of the thunder-god INDRA. Indra is the king of the Hindu gods and in charge of rain which causes the crops to grow. His chief weapon is the thunderbolt (Vajra) which is the central object of this Alpona. It often represents the god himself. The heads of the thunderbolt are surrounded each by a butterfly, a crab and a conch shell. The crabs, conch shells and fishes are suggestive of water which increases by rainfall. There is an element of sympathetic magic in this Alpona (as in many others).



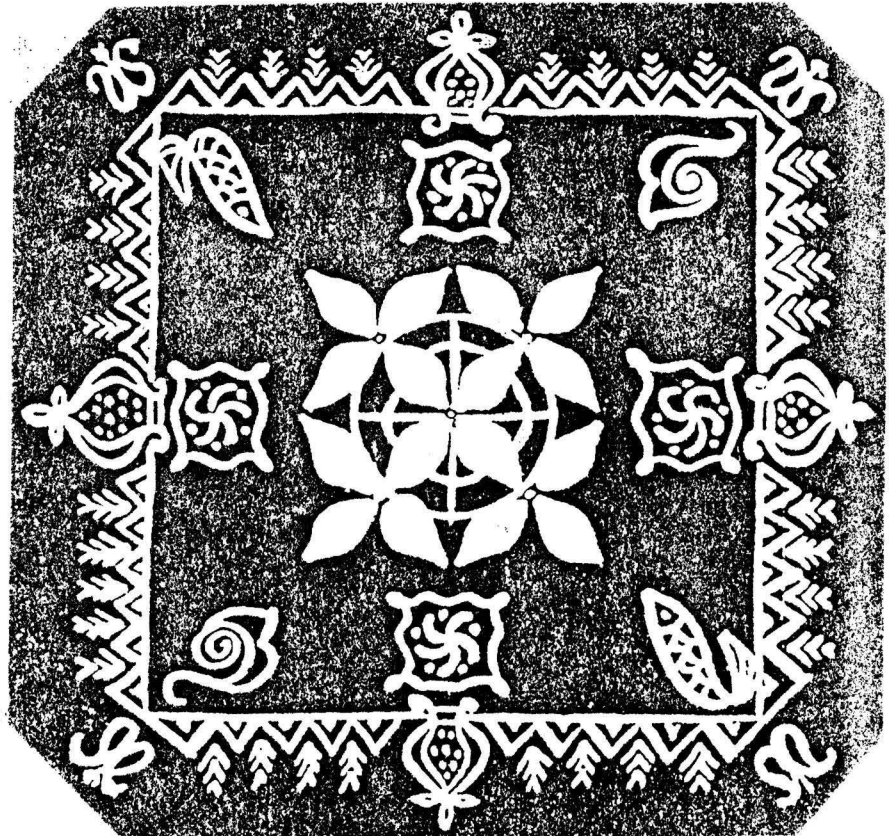
This is an auspicious motif consisting of a conch shell in a stylised horizontal section of the spiral umbilicus and four YATRA KALAS. The Yatra Kala is the conventional sign of a pot filled with water and having on the top a mango twig with five leaves. This pot is an auspicious object and an essential feature of all religious worships as well as ceremonial occasions. It probably goes back to Varuna the pre-aryan rain god.



A conventional lotus: in the centre are eight petals in the form of conch shells decorated with flower buds. At the circumference is a creeper motif known as SHANKHA LOTA (conch-shell creeper).

This is a very popular and wide-spread motif among the Bengali girls. This lotus motif is not associated with any particular rite but may be used on any occasion where an auspicious lotus motif is required.

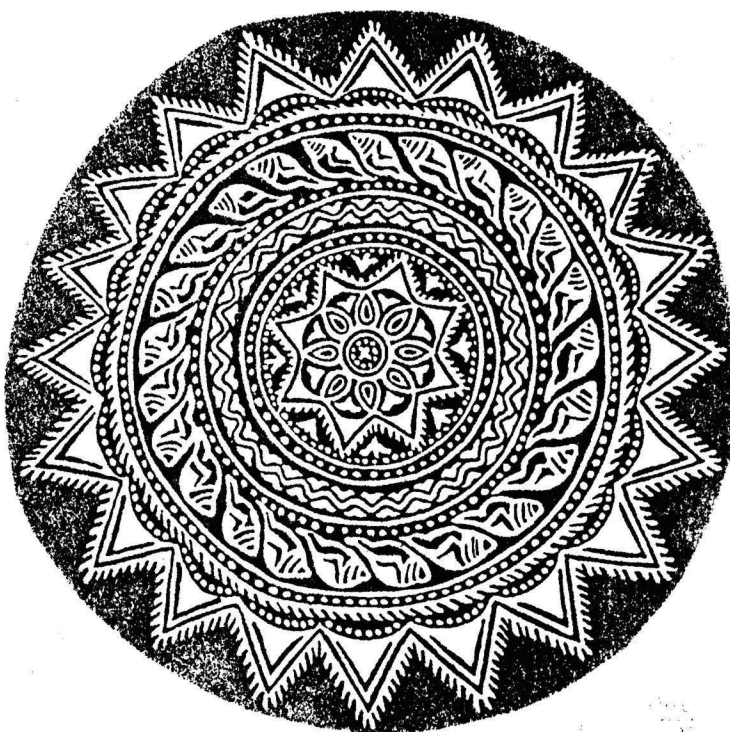
Alpona used for all auspicious purposes, especially weddings. The conch shells and the fishes are the obvious "lucky signs." Others are the symbol of Vishnu's disk (chakra) and Lakshmi's basket (Lokhir Jhapi) or a representation of the auspicious water pot (Yatra kala).





Fish, butterfly and conch-shell are of good omen in marriage ceremonies. Women-folk therefore depict these in front of the main entrance of the bride's house through which the bridegroom would enter the house with pomp and splendour.

SHANKHA PADMA or Chank Lotus Alpana used in marriage ceremonies. When the ceremony is over the bride and bridegroom return to their own home and are welcomed by the women blowing conch-shells and offering seats decorated with this Alpana.



Fred Pinn

NOTES ON AN ETHIOPIAN HELICID

Whilst I was in Paris in 1985, Dr. S. Tillier gave me two specimens of a Helicid preserved in spirit which had been collected by D. S. Brown and M. V. Prosser at the Tisjissat Falls on the Blue Nile S. of Lake Tana on 22 Aug. 1965. The shells unfortunately are not in good condition and no correlated dried material is available. Moreover, no other Helicid material has been seen from this area. The shells are of very generalised Helicid shape, much like Trichia striolata, very pale horn-coloured, paler beneath, with a pale peripheral band and very slightly obtusely keeled, of 5 whorls, coarsely striate and measuring 12.5 x 11 x 7 mm. and probably with papilla-like micro-hairs. Bacci (1951) lists 15 taxa of Helicidae and 7 of Fruticicolidae (i.e. Bradybaenidae). The species are distributed amongst Urguessa Preston, Debeauehelix Bacci, Helicella Ferussac, Lejeania Ancey, Ciliella Mousson, Eremina Pfeiffer and Euparypha Hartmann. This is mostly guesswork since the vast majority are only known from the shells; it is doubtful if many of the identifications in the literature are correct since they have mostly been made without reference to types. I have already dealt with the extreme difficulty of naming tropical African members of the group (Verdcourt 1969, 1973, 1974, 1975, 1979 & 1981) even when direct comparisons with the types are possible.

One of the specimens had part of the genitalia everted (fig. 1) consisting of two dart sacs and the verge. This was partly dissected (fig. 3) and the right ocular retractor found to pass between the penis and the female ducts; a slender penial retractor is evident. The other specimen was more completely dissected (fig. 2) and the genitalia were not everted; no clear penial retractor was found, only a few strands of muscular tissue. The genitalia are closely similar to those figured by me (1969, fig. 1) of an Eritrean specimen I considered should be called Lejeania isseli (Morelet) [one of the original three species cited by Ancey (1887) when erecting the genus (as isseliana)], the material coming from the right area and matching well with the original figures. I have no doubt that the Brown and Prosser species is congeneric with this Eritrean one, despite a discrepancy mentioned below. Pollonera claimed that Lejeania had only a single dart sac on the atrium and was related to European Helicidae, but otherwise his figure of Fruticicola lejeana (1888:77, t.3, figs. 17-18) is very similar to mine. Thiele (1931, 710), probably following Pfeiffer (1931), describes the genitalia of Lejeania much as my figure with two dart sacs and places the genus in the Hygromiinae but the Eritrean species I dissected had the right ocular retractor passing to the left of the genitalia (at least so I stated in 1969*) as in the Helicellinae which has the mucous glands usually well removed from the base of the dart sacs. In the Brown and Prosser specimen the ocular retractor passes between the penis and the female ducts and the genitalia bear quite a close resemblance to those of species of the Hygromiinae genus Euomphalia. Grossu (1983) figures the genitalia of several species of this genus. Pfeiffer also mentions that the genital organs of Lejeania darnaudi most resemble those of Euomphalia strigella Drap. and also that the right ocular retractor passes between the male and female parts. Pfeiffer also states that he could find no penial retractor confirming my experience with one of the specimens, odd as this lack may seem.

H. A. Pilsbry (1919, p. 31) and Hugh Watson (in litt.) were both convinced that the tropical African 'Helicids' had their affinities with oriental Bradybaenidae because of the positioning of the dart sacs. "The Japanese Trishoplita and the Eulotellae are specialised in a different way; yet at present they are the nearest known, though still quite remote, allies of these snails". I did not question this placing when working on the East African species. Simon Tillier expressed the view to me that all the African species were nearer to European species and this makes a good deal of sense. Certainly, I have seen no

tropical African species with genitalia anything like those of Bradybaena; nor have I seen any East African or Zairean species with genitalia resembling the two species referred to Lejeania and I do not think this type extends south of Ethiopia.

It is virtually impossible to put a name to the Tisjizat Falls species. Few of the types are available in Britain and determinations from literature are, to all intents and purposes, useless. An added difficulty is that the Ethiopian localities given in old literature are, very often, impossible to trace. Despite these difficulties it seems important to put on record the information resulting from my attempts to name this material. Preserved material from Ethiopia is too rare for any dissection to be wasted and better preserved shells will eventually be available from the same locality. None of the localities mentioned for described material is anywhere near Lake Tana; most are in Eritrea; a few of the earlier species have very vague localities given. The standard procedure for such difficulties is to describe yet another new species and although procedurally more tidy, only piles on the difficulties for future workers. I am convinced that the present type of note is in the long run more useful.

Bernard Verdcourt

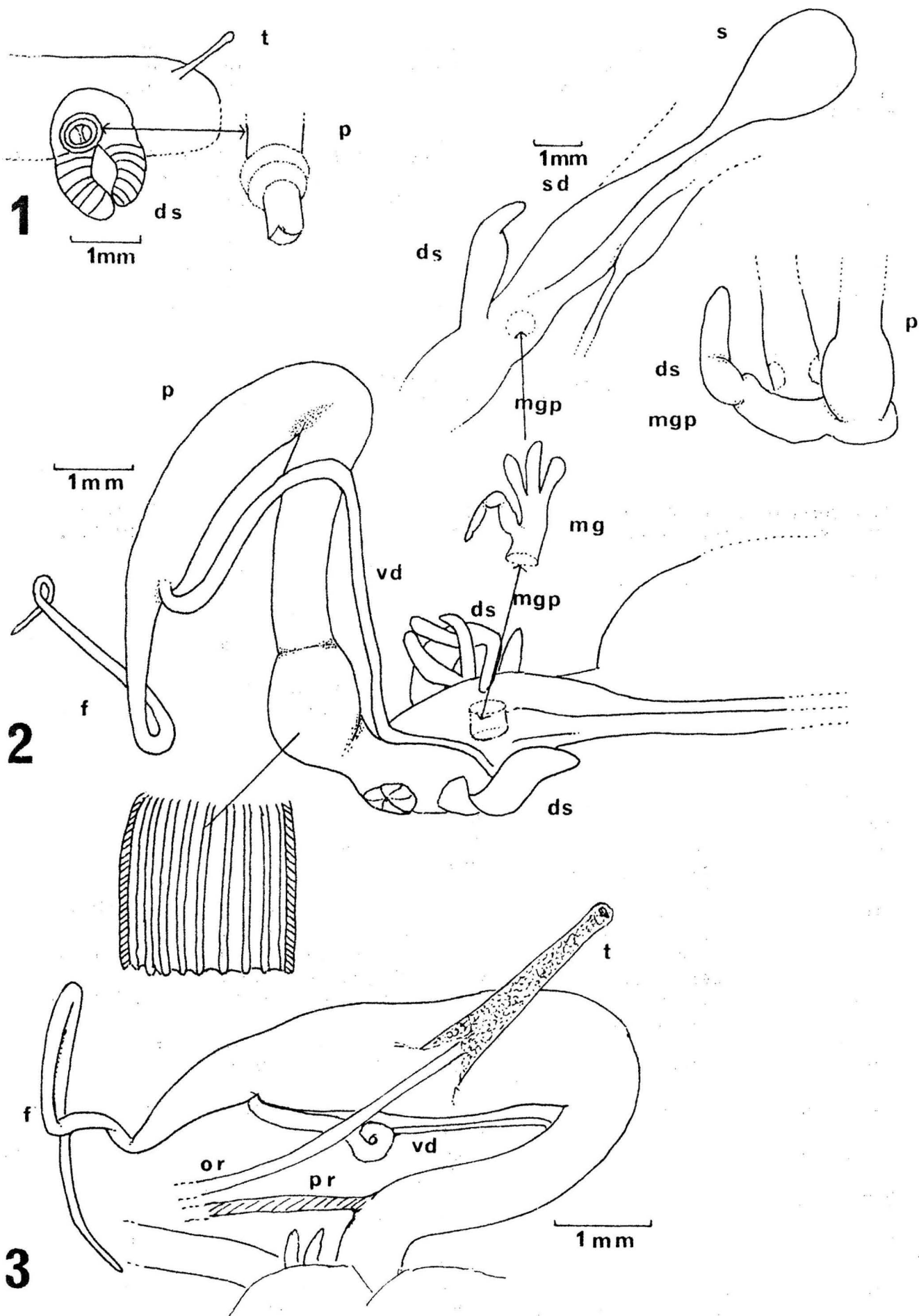
*But perhaps in error. Unfortunately the original material can not be found amongst the spirit material which I sent to the British Museum (Nat. Hist.).

Abbreviations used on drawings

ds - dart sacs	fl - flagellum
mg - mucous glands	mgp - position of mucous glands
or - ocular retractor	p - penis
pr - penial retractor	s - spermatheca
sd - spermathecal duct	t - tentacle
vd - vas deferens	

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MOLLUSCS IN HIGH PLACES

A holiday combining the pleasures of high mountain walking with, hopefully, a little shell collecting seemed to point to a central european country, so that after a little thought, and more deliberation Austria was eventually agreed upon.

A swift flight and slow bus journey one mid-august day, brought us to the town of Mayrhofen nestling in the southern Austrian alps. The town is situated in a beautiful glacial valley surrounded by high mountains.

The first evening was warm and very damp. A lot of rain had obviously fallen during the preceeding days. This became even more apparent during subsequent excursions when muddy detours had to be undertaken due to landslides blocking many mountain tracks. On going outside to 'explore' the hotel gardens large numbers of Helix pomatia Linn. 1758 were noticed crawling on paths, walls and over the grass. They were all rather thin specimens with heavily repaired shells. Not a single Helix aspersa was to be found either dead or alive and this proved to be the case throughout our stay. Presumably the altitude was too great for Helix aspersa. Only occasional rain marred the rest of the holiday so that never again were such numbers of shells to be seen.

A very early morning walk, due to an over active infant rather than excessive conchological zeal, was quite rewarding. Beech trees lining the banks of the River Ziller, were the home of Ena montana (Draparnaud 1801) browsing on the covering of algae. A search during the previous day of the same trees and surrounding short grass had revealed no shells whatsoever. Where had Ena montana spent the daylight hours for the grooves in the bark were not sufficiently deep or wide to conceal an adult specimen?

A high, dry, cemented stone wall in the centre of town would seem an unlikely habitat but close examination revealed a clausilid, Laciniaria plicata (Draparnaud 1801). A single Cepaea hortensis (Muller 1774) was found in a sheltered corner of the wall. By now the weather had improved with a steady rise in day temperature, consequently snails were becoming less visible.

A damp area of shaded grass and fallen logs at the edge of the pine forest produced Discus rotundatus (Muller 1774), Trichia hispida (Linn. 1758) and Cochlodina dubiosa (Clessin 1882).

A few days of limbering up on the lower slopes soon gave way to demands for 'sterner stuff' from the more athletic members of the family, so that the early days of modest exertion and time for 'conchologising' gave way to frantic treks to surrounding summits pausing only for refreshments and the occasional photograph. The odd mollusc was found more by accident than by careful searching. The altitude record was won by a freshly dead specimen of Arianta arbustorum (Linn. 1758) found behind a small boulder on a heather-covered slope at 1836m. It was quite hot by now, so that any molluscs, if present, had migrated to deeper areas not readily discernible to the casual glance.

Whilst debating the best way to bypass a particularly difficult landslide, a live Isognomostoma isognomostoma (Schroter 1784) was found amongst scree at about 1,000m. in an open area of pine forest.

A more leisurely day was eventually spent amongst the high alps. A rotten plank of fencing when turned over revealed a few small zonitids which could possibly be referred to Aegopinella nitens (Michaud 1831). However a number of similar species coexist so that positive identification would require anatomical

study. Further down the alp a small stream was rushing past a moss-covered wall. The bank was littered with Arianta arbustorum in great numbers obviously dislodged from their normal habitat by the heavy rain. Looking through the moss produced Cochlicopa lubrica (Muller 1774) and Macrogastra plicatula (Draparnaud 1801). A little further down the valley, Perforatella umbrosa (Pfeiffer 1828) and Trichia hispida were found in leaf litter by the edge of the pine woods.

A low stone wall by the side of a small field concealed within moss two more clausilids Laciniaria biplicata (Montagu 1803) and Clausilia dubia (Draparnaud 1805, together with Arianta arbustorum and Trichia cf. unidentata (Draparnaud 1805).

All too soon a splendid holiday came to a sudden end. Some fifteen different land snails had been found and no doubt a more careful and calm approach would have produced more species. The one surprise from a molluscan point of view, as far as I was concerned, was the initial abundance of Helix pomatia and complete absence of Helix aspersa. I had visions of 'escargots' for every meal after the first night, but this being Austria and not France they never appeared on the menu in any guise.

I should like to thank Dr. David Holyoak for kindly identifying some of the above species.

K. S. Erskine

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MAERL - A CORAL THAT ISN'T!

During the course of the most recent Conchological Society dredging trip on June 21st. 1986, hauls made off White Nothe, Dorset revealed the presence of living maerl.

I first encountered maerl in June 1982 when a group of Society members on a field trip to Skye, visited the so-called 'coral' beach at Claigan. For many readers, this might suggest the skeletons of cup-corals, a few species of which are to be found in British seas: in fact it is a lime-secreting seaweed in the form of twiggy or nodular growths. Related species in the red seaweed group, Corallinaceae, all of which are pale pink to deep purple during life, are common enough between tide-marks, forming a thin or sometimes very thick limy lining in rock pools or on rocks where runnels of water keep the surface perpetually damp. The fact that maerl lives freely on the bottom means that it needs very special conditions, with sufficient water movement to prevent silt forming and burying the beds; but not so much movement that the rhodoliths (as the nodules are appropriately called) can be damaged by rolling or by being displaced by currents into unsuitable surroundings. Depth is also critical, and it rarely grows below 20m around the British Isles - about the depth that we found it, unless the water is exceptionally clear.

Maerl beds are not common; the best known ones being off Brittany, Ireland, Western Scotland and Cornwall. Three species are known in the British Isles with a fourth from Ireland: the one we found was identified by Linda Irvine at the BM (NH) as Phymatolithon calcareum. A wealth of species is invariably associated

with all maerl-forming species because the open framework creates crevices which provide shelter, substrate for settlement and even 'housing' for small boring animals such as Gastrochaena dubia, an empty shell of which we found in the White Nothe beds. Until it crumbles, even dead maerl supports a great diversity of life.

Dr. Susan Gubbay, in the Coastal Directory which she prepared for the Marine Conservation Society, discusses the importance of conserving such communities, for the rhodoliths grow very slowly at a millimetre or so a year, with a reproductive cycle that takes at least six years. Indeed, the maerl bed on St. Mawes Bank in the Fal is an important component of the Roseland Voluntary Marine Conservation Area (see Conch. Newsletter No. 83, December 1982) and it is listed as a Threatened Community in the International Red Data Book. It is considered to be the only significantly-sized bed of live maerl in southern England by Dr. W. F. Farnham, but even so it is a small oasis in the large area of subfossil deposits that surround it, and which are currently collected commercially as fertiliser.

Stella Turk tells me that the various surveys that have now been carried out in the Fal emphasise the wealth of life associated with the three calcareous Algae - Phymatolithon calcareum, Lithothamnion corallioides and Lithophyllum incrustans, to be found on St. Mawes Bank, and conservationists are concerned about the effect of the proposed new Container Port which will narrow the entrance to the Fal Estuary.

This note is by way of being an appendix to the account of the Meeting by Bill Pocock in the Conch. Newsletter No. 99, December 1986, in which he writes of some of the finds (his own total of species was 68), and the detailed list of species being prepared by Julia Nunn. In all it was a very exceptional day.

I would like to thank Stella Turk and Bill Farnham for the information and advice they gave in helping me to compile this note.

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Jan Light

CORALS IN WEYMOUTH BAY, DORSET

Knowing that the Upper Jurassic Corallian Formation crops out in Weymouth Bay, geologists may well smile indulgently, but these are not fossil corals but living ones. Those who have dredged off Devon and Cornwall will not be surprised at reports of corals in British waters, for they will probably have encountered the fairly common Caryophyllia smithii Stokes and Broderip 1828 which comes up in dredge hauls attached to rocks and shells. In fact, there are five species of

coral living in British waters and, though I am old enough not to have been surprised by such revelations, I do confess to an eye-boggling incredulity when I read it in Zibrowius' splendid monograph of NE Atlantic corals.

The Weymouth Bay coral came to light when working through shelly gravel dredged about a mile south of White Nothe in June 1986: the trip was reported by Bill Pocock in Conch. Newsletter, No. 99, Dec. 1986. It is not Caryophyllia but one of the other four species, Hoplangia durotrix P. Gosse 1860, the type of which came from Weymouth Bay. The specimen is small, about 4mm., broken and eroded and certainly not alive when collected, but it can hardly be more than a few years old. It therefore seems not unlikely that others are still living along the Lulworth Bank, between Portland and Lulworth. The idea, that a coral species described in 1860 might still be living 126 years later in the type locality of Weymouth Bay, is one that I find highly intriguing. A great deal of shelly gravel was brought up from a depth of around 60ft. during that dredging trip: did anyone else find a coral?

Zibrowius tells us that H. durotrix is distributed from SW England, Ilfracombe, Plymouth and Weymouth, to Brittany, Portugal, Madeira, Canaries, and the Mediterranean; so, in SW England, it is at the top of its range. He also tells us that it is parasitized by the barnacle Boscia anglicum.

This article, though not about molluscs, is, in a sense, related. The latest updated list of marine molluscs for the Weymouth area is almost ready for distribution to the members of the dredging party. It contains an amazing 220 species which, together with Hoplangia durotrix, indicates that the benthic fauna of Weymouth Bay, and probably eastwards to Lulworth, is in a pretty healthy state. The fact that the Weymouth and Wyke Regis sewage outflow pipe is on the other - western - side of Portland has, I suppose, a lot to do with it. Weymouth has always been well known for its marine molluscs as Sykes' list for 1946 clearly shows and, if it has deteriorated, it can only be in numbers of individuals for the diversity of marine molluscs seems to be as high today as it has ever been.

I am grateful to my colleague Brian Rosen for identifying this coral, and for trusting me with his copy of Zibrowius' monograph.

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Phil' Palmer

DREDGING IN WEYMOUTH: SPECIES OF MOLLUSC COLLECTED ON 21st. JUNE 1986

The following list is of the molluscan species found in three hauls dredged on the 21st. June 1986 off White Nothe and Ringstead Bay, Weymouth, Dorset in 35-60ft. depth. A full report of this field meeting has already appeared elsewhere (Conch. Newsletter No. 99, December 1986).

I would particularly like to mention the following interesting finds which are new records not published in the 1982 Sea Area Atlas of Mollusca (ed. D. Seaward):

Nucula tenuis (live), Parvicardium minimum (dead), Plagiocardium papillosum (dead) - all new to Sea Area 16; Goodallia triangularis (live) - previously only found dead; Putilla alderi, Mangelia attenuata, Caecum glabrum, Parvicardium scabrum - all found alive, updating pre-1951 records. Interestingly, Caecum imperforatum, while not a new record, was also found alive, together with three dead Stenea species: cutleriana, nitens and sepuloides.

I am grateful to the following people for helping me to compile this list of species; Jan Light, Celia Pain, Phil Palmer, Bill Pocock and Graham Saunders.

Molluscan species collected on 21st. June 1986

(a) alive: Lepidochitona asellus, Jujubinus montagui, Gibbula magus, Gibbula tumida, Putilla alderi, Caecum glabrum, Caecum imperforatum, Aporrhais pes-pelecani, Calyptrea chinensis, Crepidula fornicata, Euspira alderi, Ocenebra erinacea, Buccinum undatum, Hinia incrassata, Hinia reticulata, Mangelia attenuata, Odostomia eulimoides, Antalis vulgaris, Nucula turgida, Nucula hanleyi, Nucula nucleus, Nucula tenuis, Striarca lactea, Glycymeris glycymeris, Modiolus adriaticus, Aequipecten opercularis, Anomia ehippium, Pododesmus squamula, Goodallia triangularis, Parvicardium scabrum, Laevicardium crassum, Spisula elliptica, Spisula solida, Ensis ensis, Ensis arcuatus, Moerella donacina, Gari tellinella, Abra alba, Dosinia lupinus, Paphia rhomboides, Clausinella fasciata, Timoclea ovata, Corbula gibba. (43 species)

(b) dead: Acanthochitona crinitus, Emarginula conica, Emarginula fissura, Diodora graeca, Acmaea virginea, Jujubinus exasperatus, Jujubinus striatus, Gibbula cineraria, Gibbula umbilicalis, Calliostoma zizyphinum, Tricolia pullus, Littorina littorea, Rissoa parva, Galeodina carinata, Alvania cancellata, Alvania punctura, Alvania lactea, Alvania semistriata, Manzonina crassa, Turbona beanii, Onoba semicostata, Tornus subcarinatus, Turritella communis, Bittium reticulatum, Trivia arctica, Trivia monacha, Euspira catena, Cerithiopsis tubercularis, Epitonium clathrus, Melanella alba, Trophon muricatus, Bela nebula, Haedropleura septangularis, Oenopota turricula, Chrysallida indistincta, Chrysallida spiralis, Odostomia acuta, Odostomia conoidea, Odostomia rissoides, Odostomia unidentata, Turbonilla elegantissima, Retusa retusa, Nuculana minuta, Mytilus edulis, Palliolum tigrinum, Chlamys distorta, Chlamys varia, Pecten maximus, Ostrea edulis, Loripes lucinalis, Thyasira flexuosa, Diplodonta rotundata, Kellia suborbicularis, Lepton squamosum, Mysella bidentata, Cerastoderma edule, Acanthocardia tuberculata, Parvicardium minimum, Parvicardium exiguum, Parvicardium ovale, Plagiocardium papillosum, Spisula subtruncata, Lutraria angustior, Lutraria lutraria, Lutraria magna, Ensis siliqua, Phaxas pellucidus, Arcopagia crassa, Gari depressa, Gari fervensis, Solecurtus scopula, Arctica islandica, Venus verrucosa, Dosinia exoleta, Irus irus, Gastrochaena dubia, Pandora pinna, Thracia phaseolina. (78 species)

In addition, the following species require confirmation:

Alvania cf. subsoluta, Balcis cf. devians, Eulimella cf. ventricosa, Eulimella laevis, Chrysallida suturalis.

Julia Nunn

FIRST CONCHOLOGICAL SOCIETY WEYMOUTH DREDGING MEETING, 24/25 MARCH 1973

Accounts of the now regular dredging trips from Weymouth organised by Jan Light remind me that the original 1973 expedition, conceived arranged and led by Celia Pain, has never been written up.

Twenty members attended, splitting on both days, to make up a boat party, and a shore group exploring Kimmeridge ledges. This note deals only with the offshore aspects.

A fresh southerly wind gusting to gale force on the Saturday, raised such waves that dredging was only possible in sheltered positions, while, on the Sunday, although the wind had relented, the swell produced a distinctly "interesting" motion which combined with diesel fumes to cause most of the party to lose their concentration from time to time.

While most of the dredges were of interest, particularly to a novice to the art like myself, some were exciting and important. Station 8, just off the cliffs of Portland, produced pitted stones crowded (in places) with live Arca lactea and Emarginula conica, and fresh but empty Gastrochaena dubia shells and nests. From one of these stones, kept at home in a seawater tank, emerged a tiny live Crenella prideauxi - then the only recent live British record (one has subsequently been found in the Channel Isles).

By contrast, Station 6 yielded (unwillingly) heavy grey-black mud, horrid to handle and sieve, but home to living Abra alba, Nucula turgida, Spisula subtruncata, Thyasira flexuosa, Philine aperta, and several more, including Turbonilla (Tragula) fenestrata - the first live record outside the Plymouth (S18) sea area. We now know that it occurs commonly with a similar community in the same sort of mud in other places close by.

The slipper limpet Crepidula is of course almost ubiquitous and usually super-abundant here, so that paradoxically it often goes unremarked.

Since there are some interesting comparisons to be made with the more recent dredges, full station species lists are given below.

I am grateful to Celia Pain, Adrian Rundle and John Moyse for supplementing my own lists from the material they took away to examine, and to Mrs. S. M. Turk for checking or determining critical species; also to Bert Randall with his boat, the "Sea Trader"; but particularly to Celia Pain for organising such a valuable and enjoyable meeting, and for introducing me to the addictive pleasures of dredging.

As Portland Area Representative, I benefited from the much improved knowledge of the Area; as Marine Recorder, I urge others to follow the initiative of Celia Pain and Jan Light to improve recording in other offshore areas.

Dredge Station details are as follows:

Station	Lat.	Long.	Depth	Description
1	50 35.5N	2 25.1W	16m	off Portland Harbour
2	50 36.9N	2 26.3W	6m	off Weymouth Beach
3	50 36.6N	2 25.7W	12m	off Weymouth Harbour
4	50 36.3N	2 25.8W	10m	off The Nothe
5	50 37.0N	2 26.0W	8m	off Weymouth Beach
6	50 36.2N	2 26.2W	10m	off The Nothe
7	50 37.1N	2 25.1W	12m	off Lodmoor
8	50 32.2N	2 25.0W	32m	off Church Hope Cove
9	50 33.4N	2 24.5W	22m	off Borstal
10	50 33.9N	2 24.8W	20m	off The Verne

Live records for each station are listed below:

Species	Stn. No.	Species	Stn. No.
<u>Acanthochitona crinitus</u>	6,8,9	<u>Doto coronata s.l.</u>	6
<u>Lepidochitona cinereus</u>	2,5,9	<u>Odostomia unidentata</u>	6,8
<u>Lepidopleurus asellus</u>	5,8	<u>Philine aperta</u>	6
<u>L. cancellatus</u>	8	<u>Turbonilla fenestrata</u>	6
<u>Acmaea virginea</u>	3,5,7,8	<u>Abra alba</u>	6
<u>Alvania crassa</u>	8	<u>Anomia ephippium</u>	7,8,9,10
<u>Aporrhais pespelecani</u>	3,5	<u>Arca lactea</u>	8,9
<u>Buccinum undatum</u>	1,3,6,8,9	<u>Barnea candida</u>	8
<u>Cantharidus montagui</u>	8	<u>Chlamys opercularis</u>	2,9
<u>Crepidula fornicata</u>	1,2,3,5,6,7,8,9,10	<u>C. varia</u>	9,10
<u>Diodora apertura</u>	8,10	<u>Corbula gibba</u>	6
<u>Emarginula conica</u>	8,10	<u>Crenella prideauxi</u>	8
<u>E. reticulata</u>	1,8	<u>Cultellus pellucidus</u>	6
<u>Gibbula cineraria</u>	3,5,6	<u>Notirus irus</u>	8
<u>G. magus</u>	3,5,7	<u>Musculus discors</u>	6
<u>Mangelia nebula</u>	6	<u>Mysella bidentata</u>	1,6
<u>Nassarius incrassatus</u>	6	<u>Nucula turgida</u>	6
<u>N. pygmaeus</u>	6	<u>Sphenia binghami</u>	8
<u>N. reticulatus</u>	6	<u>Spisula subtruncata</u>	6
<u>Ocenebra erinacea</u>	6,8,9,10	<u>Thyasira flexuosa</u>	6
<u>Rissoa lilacina s.s.</u>	6	<u>Venerupis aurea</u>	3,5
<u>R. parva</u>	6,8	<u>V. rhomboides</u>	10
<u>Tricolia pullus</u>	6	<u>V. striatula</u>	6
<u>Trivia arctica</u>	7		

(From station 4, only stones and empty shells were obtained)

In addition, the following were found as empty shells only:

Bittium reticulatum, Calliostoma zizyphium, Cerithiopsis tubercularis, Gibbula tumida, Mangelia coarctata, Tornus subcarinatus, Turritella communis, Chrysallida spiralis, Turbonilla elegantissima, Barnea parva, Cardium exiguum, C. scabrum, Chlamys distorta, Ensis arcuatus, E. ensis, Gastrochaena dubia, Glycymeris glycymeris, Hiatella arctica, Kellia suborbicularis, Laevicardium crassum, Lutraria angustior, L. magna, Monia squama, Pecten maximus, Solen marginatus, Tellina crassa, Thracia distorta, Venus ovata, V. verrucosa.

Dennis R. Seaward, Area Representative, Portland Sea Area (S16) December 1986

1000th. MEETING OF THE SOCIETY

To be held in Leeds by invitation of the

YORKSHIRE CONCHOLOGICAL SOCIETY

Friday 22nd. May - Sunday 24th. May 1987

P R O G R A M M E

Friday evening, ... Informal meal and get-together for those members and guests
22nd. May staying overnight on the Friday evening.

- Saturday morning, ... Informal visits to various sites in Leeds, including King
23rd. May Lane Pond and the homes of some of our founder members.
- 11.00-12.00 ... Meet at Leeds City Museum for morning coffee.
- 12.00-1.30 ... Lunch.
- 1.30-1.45 ... Gather in the Lecture Theatre of Leeds City Art Gallery.
- 1.45 ... Welcome.
- 2.00- ... Main meeting and lectures.
- Mr. F. W. Woodward : 'The Midland Connection'
- Mr. S. P. Dance : 'A Thousand Meetings Ago'
- 3.30-3.45 ... Visit to the City Museum Stores, where coffee will be
served and members will be able to examine the museum's
molluscan collections, including material from the
collections of William Nelson; Charles Ashford; A. G. Stubbs;
Fred Taylor, and Silvanus Charles Thorpe Hanley.
- 6.00 ... End of Meeting.
- 7.30 for 8.00 ... Evening Meal.
- Sunday, ... Full Day Field Meeting - Visit to the Yorkshire Dales in
24th. May search of some of the rarer and more interesting Yorkshire
land snails. Including such species as Vitrea (Vitrea)
subrimata (Reinhardt 1871); Clausilia dubia Draparnaud
1805; and Deroceras (Agriolimax) agreste (Linne 1758).

- SEE BOOKING FORM AT END -

ABSTRACTS OF TALKS

'A THOUSAND MEETINGS AGO'

On the twelfth of October 1876, in the fortieth year of Victoria's reign, four men gathered in an unpretentious house on the outskirts of Leeds and agreed to hold fortnightly meetings at each other's residence alternately. On that day John William Taylor, William Denison Roebuck, William Nelson and Henry Crowther, respectively printer, solicitor, currier and museum curator, constituted the founding membership of the Conchological Club of Leeds, parent body of the Conchological Society of Great Britain and Ireland.

Four months earlier George Sand, the French novelist, and George Custer, the American cavalry leader, had both died, the first peacefully on her French estate, the second violently by the Little Bighorn River. And in that same year Alexander Graham Bell patented the telephone, work began on the Channel Tunnel and Brahms completed his first symphony. These disparate events may have no connection with that meeting in Leeds but they do capture the flavour of 1876 and supply a back-drop against which we may parade events of more immediate interest to conchologists.

What, indeed, were the conchological events of 1876? Who were the

conchological personalities in Great Britain and elsewhere at that time? Was 1876 a productive year for conchological inquiry in Germany, for example? Who was working on the molluscs brought back by HMS Challenger in May of that year? What other societies existed then to promote and publicise the study of molluscs and their shells? What was that scoundrel Bourguignat up to? And who was the leading authority on freshwater clams?

Very likely the four men gathered in that unpretentious house talked about little else than British snails and slugs, their local distribution and the peculiarities of their external shape and coloration. Probably they said little about events abroad. Almost certainly they would have seen no point in recording the contemporary scene, conchological or otherwise. More than a century later we do see the point and because we are not involved and have the advantages of hindsight and perspective we see the point clearly. The thousandth meeting of the Conchological Society provides an admirable excuse for presenting a comparative study of the Society's origins in 1876, a year comfortably beyond the memory of us all.

S. Peter Dance

'THE MIDLAND CONNECTION'

Since the middle of the last century the English Midlands have played a significant, but often overlooked, role in the study of conchology with particular emphasis, as to be expected, on British land and freshwater Mollusca.

Centred in Birmingham these enthusiastic workers amalgamated their efforts, forming the Midland Malacological Society in 1898. This Society took an active role in bridging the gulf between the Conchological Society, then situated in Leeds and the Malacological Society in London.

It numbered amongst its membership such names as Walter Edward Collinge (1867-1947); Albert Wood (? -1917); James Madison (1847-1915); Harry Howard Bloomer (1866-1960); G. Sheriff Tye (? -1900); William Moss (-); Harry Overton (1875-1951); Hugh McClelland (1864-1943); John Linton (? -1912); Reverend E. Percy Blackburn (1862-1940); William Henry Whitelock (1859-1925); Reverend Samuel Merriman Coombs (1822-1904); Ernest Ruthven Sykes (1867-1954); Peter Bellinger Brodie (1815-1897); Philip Brookes Mason (1842-1903) and Percy Thomas Deakin (c1860-1926).

A short history of this Midland Malacological Society and its activities will be outlined together with biographical details of some Midland Conchologists to the 1,000th. meeting of the Conchological Society to be held at Leeds in May 1987.

F. R. Woodward, Art Gallery & Museum, Glasgow

CORNISH BIOLOGICAL RECORDS No. 7 (1984) The Subfossil Fauna of Cornwall and the

Isles of Scilly by F. A. Turk (1985); Published by the Institute of Cornish Studies. pp. iii + 66. ISBN 0 903686 47 3. Available from the Institute of Cornish Studies, Trevenson House, Pool, Cornwall, Price £1.50 including postage and packing.

This report catalogues records of the 'subfossil' fauna of the County of Cornwall and the Scillies (comprising Vice-Counties 1 and 2; West Cornwall and the Scillies and East Cornwall). Dr. Turk defines 'subfossil' records as those that are older than the end of the 15th. Century. These have been put into various age

categories which relate to the type of dating evidence. He points out that these apparent ages must be regarded with some caution, particularly the records from studies carried out early this century as in some cases the stratigraphic context of the material is unclear. Some of the fossils are surface finds where it is impossible to estimate a relative age. Most of the records are from archaeological sites and few are from sites with absolute rather than relative dates.

The catalogue is mainly of shells and bones and includes fossil Mollusca (marine and non-marine; 23 pages), fish (4 pages), birds (8 pages), and mammals (21 pages). There are a few records of other types of fossils such as beetles (Bronze Age), crabs (Neolithic and Bronze Age) and a lobster (Roman).

The locality, grid reference and stratigraphic context of each record is given where available. There is a bibliography of six pages which gives references to all papers which have been used to compile the catalogue. The source is given for each record. There appear to be a few unpublished records cited. In a few cases the records are from museum specimens. It is unfortunate that in many cases the catalogue does not include the present location of the material.

The molluscan records have been assessed by Stella Turk who has re-examined some of the original material. Consequently there are many footnotes revising identifications of material collected early this century. Most of the non-marine molluscs recorded are from archaeological sites and this is reflected in the species present. There are very few records of freshwater species whereas there are many records of those characteristic of open grasslands, woodlands and disturbed habitats.

Many of the marine molluscs recorded are from food remains in middens, and these give an interesting picture of the changes in their utilisation as part of the diet.

Dr. Turk has himself provided many of the fossil bird and mammal records from work on material from archaeological sites. These records (and those from the literature) include some species which have become extinct in Britain due to changing climates or habitat destruction. For example, there are records of beavers during the Iron Age, wolves in the Bronze Age and mammoth further back during the Pleistocene. Bird records include a surprising report of Iron Age Black Grouse Tetrao tetrix in the Scilly Isles.

Overall, this is a useful account of the records from Cornwall and provides a good starting point for anyone interested in the Pleistocene faunas of the region.

Mary B. Seddon

PUBLICATIONS RECEIVED

Note. All items mentioned will be held by T. E. Crowley for three months after issue of this Newsletter, so that any members who wish may borrow them during this period.

Porcupine Newsletter 3, 6 (June 1986)
The Fleet, Dorset.

A large part of this issue is taken up with an assessment of the marine life of this unusual habitat: the molluscan section being contributed by our recorder, Dennis Seaward. Conditions vary considerably within the lagoon area and it

provides contrasting micro-habitats, with a number of rarities. A complete listing of all molluscs known from the area is appended.

Mike Rendall reports heavy mortality of Sepia in the Boulmer, Northumberland area and other beaches down into Yorkshire last February and March. The reasons for this seem at present to be unknown and there are few records of it happening previously. One suggestion is that it is a fairly regular occurrence, regularly overlooked.

The formation was announced of an Irish Sea Study Group to augment and disseminate information on this area and co-ordinate future work.

Dennis Seaward draws attention to the 'double tide' affecting Weymouth Bay: this rare condition affects molluscan life at low spring tides and apparently results in large populations of normally sublittoral mollusca on the 'wadeable' flats. The area is threatened by growing amenity use and a plea is made for preservation of this unusual area. Do similar conditions occur anywhere else?

Porcupine Newsletter Vol. 3, No. 7, July 1986

This is a 'Lagoon' issue with detailed descriptions of the various types of coastal lagoons, their origin and fauna. Our Marine Recorder Dennis Seaward contributes one of the articles, reviewing the saline lagoons of Somerset, Dorset and Devon.

Nora McMillan contributes an article on invertebrates of Fair Isle, and a Brachiopod survey is proposed by members of the Dept. of Genetics and Geology, Glasgow University, who invite co-operation and records of distribution from anybody willing to help. Write to Dr. B. L. Cohen at the Dept., Glasgow, G11 5BR

Poirieria (Auckland Museum Conchology Section). Vol. 15, No. 2, July 1986.
Editor: Ian Scott, 25 Halston Road, Auckland 4, New Zealand.

An illustrated article by Margaret Morley describes the behaviour of the bivalve Scintilla stvensoni which opens its valves out flat, extends its foot out in front, and crawls along at a speed which would put most gastropods to shame.

P. R. Jamieson details some publications modifying the taxonomy of certain local molluscs. In the family Conus for instance, it has been established that kermadecensis Iredale, 1913 and tropicensis Auctt., are subspecies of Conus Tischkeanus Weinkauff, 1875: Siphonaria has been revised; originally described from insufficient material and with at least one erroneous type locality, it has been established that S. zelandica is endemic to Australia, S. australis is endemic to New Zealand, S. cookiana becomes a synonym of australis and a new name, S. propria is proposed for those shells hitherto known as cookiana. A slap on the respective wrists of Messieurs Quoy and Gaimard.

The shell known as Marinula meridionalis (Brazier, 1877) has been found to be identical with the introduced Phytia myosotis (Drap., 1801) which has priority. The so-called Rangitotoa insularis Powell, 1933 has also been found to be an introduced species, the Bermudan Microtralia occidentalis (Pfr., 1854) which has priority.

J. F. Goulstone reports on the 1976-7 snail survey of Rangitoto Island and the distribution of the 37 species found thereon. There is also a list of recently found albino marine shells; and recent field trips receive detailed attention.

As usual, the Report is attractively presented with colour plates and is well laid-out for reference purposes. It contains an incredible amount of information from full details of all nature reserves in the U.K. (214 of them at present) and S.S.S.I's (4842) to grants given for a variety of purposes, all in furtherance of conservation in some way, totalling £1,700,000.

The Chairman reports a good year - progress made is substantial, the organisation is 'gaining in cohesion' and its resources are increasing. There is a revised policy in the matter of forestry, and broadleaved planting is now encouraged; however there is still a lot of largely uncontrolled afforestation in Scotland with irreversible consequences for the ecology: drastic and urgent legislation is advocated and the matter meanwhile is of considerable concern to the Council.

There is room for improvement also in the field of S.S.S.I's, which provide the largest bulk of the Council's work. Legislation is weak, although it is being improved by amendment acts. Legal tangles still make the notification and renotification of sites a very slow process. During the year, two sites were completely destroyed and long-term damage committed in a further 58 cases. It may not be generally known that, as well as notifying and defending sites, the Council is legally bound to discover and identify them wherever they occur. It still happens that planning permission is granted by local authorities on notified sites.

Other main headings in the Report concern International Co-operation, involvement in Legislation, Urban and Marine nature conservation, and Research matters. Much progress has been made towards establishing marine nature reserves, with Lundy, Skomer and Loch Sween under investigation. Wild plant communities are being created also, many of them on 'artificial' land such as motorway verges and amenity areas.

Items of special interest to the malacologist include an investigation into the effects of Scallop dredging in the vicinity of Skomer; this has now ceased: and the introduction of Manila Clams (*Venerupis semidecussata*). Normally such introductions require a licence, but it seems that in this case M.A.F.F. decided that no licence was necessary since the clams were 'under mesh'. Incredibly, they do not seem to have considered the matter of spat until pointed out by the N.C.C., who are now pressing for all deposits of alien shellfish to be subject to control and that no further licences be issued until it can be established that no harm to nature wildlife will result, which seems pretty basic.

On the whole however, a cheerful report.

T. E. Crowley

CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

993rd (Ordinary) meeting held on 18 October 1986 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 39 members and friends present.

Appointment of minute secretary: Dr. Seddon was appointed.

Acting Hon. Secretary: The President will be carrying on until the A.G.M. in March.

Nominations and elections to Membership: 18 Full Members

Mrs. H. S. Ashworth, [REDACTED], [REDACTED], London, [REDACTED]

A. J. Barclay, [REDACTED], Leicester, [REDACTED]
 F. Berry, [REDACTED], East Sheen, London, [REDACTED]
 Mrs. L. M. Evans, [REDACTED], Abbeytown, Wigton, Cumbria, [REDACTED]
 I. Farrow, Flat 3, [REDACTED], Lewes, E. Sussex, [REDACTED]
 A. W. Jackson, B.Sc., M.Phil., M.I.Biol., [REDACTED], Staple Hill, Bristol, [REDACTED]
 N. A. Jaffer, [REDACTED], Dar es Salaam.
 P. Jeffrey, [REDACTED], Strouden Park, Bournemouth, [REDACTED]
 Dr. Th. C. M. Kemperman, Afdeling Systematische Dierkunde van de Rijksuniversiteit te Leiden, p/a Rijksmuseum van Natuurlijke Historie, Raamsteeg 2, Postbus 9517, 2300 RA Leiden, Netherlands.
 A. S. Knight, B.Sc., [REDACTED], Loughborough, Leicestershire, [REDACTED]
 Frédéric Magnin, [REDACTED], 13840 Rognes, France.
 J. N. Oakley, [REDACTED], Menai Bridge, Anglesey, Gwynedd, [REDACTED]
 Dr. Kaj Strand Petersen, Division of Quaternary Geology, Ministry of the Environment, Geological Survey of Denmark, 31 Thoravej, DK-2400 Copenhagen N.V., Denmark.
 Dr. M. Poulicek, Zoological Inst., University de Liege, 22 Quai van Beneden, B-4020 Liege, Belgium.
 Dr. Ted von Proschwitz, [REDACTED], S-41282 Goteborg, Sweden.
 Dr. D. Roberts, Dept. of Zoology, Queen's University, Belfast, BT7 1NN
 B. Sirenko, Zoological Institute, Academy of Sciences, Leningrad 199034, U.S.S.R.
 A. Sterckx, [REDACTED], Lordswood, Southampton, [REDACTED]

1 Institutional Member

The Malacological Society of China, 2 Siangyang Road, Taipei, Taiwan, Republic of China.

Lecture: S. P. Dance "So you want to write a shell book".

Announcements and Correspondence: Members were reminded that the Annual Show of the British Shell Collectors Club would be held on October 25, 1986. Places were still available for the Marine Workshop on November 8. Mr. Negus would be glad of any contributions for the Newsletter. Mrs. Fogan appealed to Members to covenant their subscriptions.

Meeting closed 5.10 p.m.

Exhibits

- | | |
|------------------------|--|
| B. Colville | - Programme and Abstracts of the 9th. Malacological Congress. |
| | - "A Monograph of the Land and Freshwater Mollusca of the British Isles." |
| | - "Fauna of U.S.S.R. Mollusca, III, 3." |
| S. P. Dance | - "A History of Shell Collecting" 1986 |
| D. W. Guntrip | - Russian snail books. |
| Mrs. J. Light | - <u>Mytilus edulis</u> and pearls. |
| | - Congress information book and associated specimens. |
| Dr. J. Llewellyn-Jones | Early books on Mollusca. |
| J. E. Llewellyn-Jones | Some of my favourite books on Mollusca. |
| E. G. Philp | - <u>Tandonia rustica</u> - a slug new to the British Isles. |
| E. Sándor | - <u>Family Olivididae</u> Swainson, 1840 Subfamily Ancillinae Cossman, 1899. |
| R. P. Scase | - Burgess "Cowries of the World". |
| | - Springsteen & Leobrera "Shells of the Philippines". |
| A. Seccombe | - Two species of <u>Lambis</u> . |
| B. Verdcourt | - <u>Onchidium ? coriaceum</u> Semper N. Mindoro, R. Subaan, 15 April 1986. Photo. M. Coode. |
| | - two snail articles in Sunday magazines. |

994th (Ordinary) meeting held on 15 November 1986 at B.M.(N.H.)

In the Chair: Mrs. E. B. Rands with 42 members and friends present.

Nominations and elections to Membership: 3 Full Members

Karl-Heinz Beckermann, Dip.-Ing., [REDACTED], [REDACTED],
[REDACTED], D-4715 Ascheberg-Hebern, Germany.

B. R. Bristow, [REDACTED], Mortimer, Berkshire, [REDACTED]

Mrs. S. Lahav, [REDACTED], Cambridge, [REDACTED]

1 Junior Member

Miss Eve Atkinson, [REDACTED], Haddington, East Lothian, Scotland.

Lecture: Dr. E. Sandor "The Pearl".

Announcements and Correspondence: Mrs. Fogan appealed to all members to covenant their subscriptions. She reminded members that those who paid by Banker's Order would need to complete a new form with the subscription rates for 1987. Mr. Palmer announced that supplements to the Journal of Molluscan Studies were available from the Malacological Society; Members of the Conchological Society are entitled to 25% discount on orders. The President reported that the B.M.(N.H.) has changed their policy for 'sympiotic' societies booking rooms for meetings, in that they now give precedence to bookings from commercial organisations. As a result of this unwelcome change, the November 1987 Meeting has had to be rearranged, despite our early booking. She appealed to Members to look for alternative accommodation for Meetings within central London. Please send any details of potential meeting places (including location, price, projection facilities, kitchen facilities, etc.) to Mrs. Rands. A Collection including many shells from SE. Asia was offered for sale; any member who is interested should contact Mr. Dance.

Any other business: Mrs. Rands auctioned books for the benefit of the Society.
Meeting closed 5.30 p.m.

Exhibits

- | | |
|---------------------------|---|
| D. W. Guntrip | - Land snails with albino shells. |
| J. E. Llewellyn-Jones | - A Collection of 19th Century Mother-of-Pearl objects. |
| M. Mitchell | - Freshwater Mollusca from Siberia. |
| T. Pain | - The Genus <u>Echinophoria</u> Sacco. |
| C. P. Palmer and J. Light | - Two rare British marine gastropods <u>Graphis albida</u> and <u>Ebala nitidissima</u> . |
| E. Sandor | - The Pearl. |
| F. Woodward | - <u>Margaritifera margaritifera</u> (L.) discarded by pearl fishers. |

GENERAL NOTES

FLIES BRED FROM DEAD SNAILS IN ZAMBIA

There is an interesting article in the current number of the Entomologist's Magazine dealing with about a dozen species of Diptera bred from 40 specimens of an unspecified Limicolaria. 'Some Diptera and their parasitoids bred from dead snails in Zambia', Entomologist's mon. Mag. 122:195-199 (1986). The author is R. A. Beaver who gives a quite extensive list of references.

B. Verdcourt

A 'NEW' SNAIL TO LOOK OUT FOR IN BRITISH GREENHOUSES

In September 1986 Dr. A. J. de Winter of Wageningen sent me some small Euconulus-like snails to name which had been discovered in a tropical greenhouse at Wageningen University. These proved to be Afropunctum seminum (Morelet) with which I dealt recently in the Journal (Verdcourt, 1981). The material was found in part of a greenhouse devoted mostly to orchids from Gabon from which country the species was first described. Abundant living material will allow the collector to study the anatomy thoroughly and finally settle the affinities of this small snail. I look forward to the results of this research. Meanwhile the species will almost certainly turn up elsewhere in orchid houses and can easily be recognised by the euconuloid shape, small size about 3.3 x 3 x 3 mm., and close transverse striae above which anastomose in places and just extend over the periphery on to the base which is otherwise ornamented with fine spiral striae. Its small size will enable it to be readily transported on orchids sent from one grower to another. I have absolutely no idea of its feeding habits.

B. Verdcourt

PUPISOMA ORCULA (BENSON) (VALLONIIDAE) IN NIGERIA

Tom Pain passed over to me several interesting snails collected by J. Reid in Calabar, Nigeria, an area well known for its endemic flora. These include a striking keeled Maizaniid which will be the subject of a future investigation and some very small snails collected on guava. These I identified as Pupisoma orcula (Benson) and I am grateful to Dr. W. Adam for confirming my determination. The species is arboreal and widely distributed in the Old World Tropics but I am not aware that it has previously been recorded from West Africa.

B. Verdcourt

ASSISTANCE WANTED

Fred Woodward, Depute Keeper, Department of Natural History, Art Gallery & Museum, Kelvingrove, Glasgow, G3 8AG, requires records of all Unionids (Anodonta, Unio & Margaritifera) in the British Isles. He is anxious to obtain both current and past locality records, status of colony, etc. in connection with monitoring the present status of this group in Britain.

MUSEUM PUBLICATION

'Thomas Gray, Glasgow's Shell Artist', text by Peter Dance & Fred Woodward, photographs by Glasgow Museums & Art Galleries photographic dept. 1986. Price 50p. From the Art Gallery & Museum, Kelvingrove, Glasgow, G3 8AG

SPECIALIST JOURNALS

DIETER SCHIERENBERG BV, Prinsengracht 485-487, 1016 HP Amsterdam - Netherlands specialises in malacological journals and books. Please ask for catalogues and special lists.

COPY DATES FOR NEWSLETTER CONTRIBUTIONS

Copy for the March	issue should reach me before	6th. January
" " " June	" " " " "	6th. April
" " " September	" " " " "	6th. July
" " " December	" " " " "	6th. October

Newsletter Editor

ANNUAL SUBSCRIPTIONS, 1987

Dear Members,

The annual subscription for 1987 was due on 1st. January, and I should like to remind any who have not sent subscriptions to do so.

It has been necessary to increase the subscription rates, as announced in the September and December issues of the Conchologists' Newsletter, but some Members have forgotten this and have not amended their bankers' orders so that the amount received is insufficient. Please forward the balance, and arrange for the correct amount to be paid for next year.

Ordinary, Family and Institutional Members whose subscriptions are paid in full before 31st. March may deduct £1.00 (U.S. \$1.50) from the standard rates.

Members whose subscriptions are unpaid are ineligible to vote in the election of Officers and Council. They will receive no further publications, although any which have been withheld will be forwarded on receipt of payment.

Please help by paying without further reminders.

MARJORIE FOGAN (Hon. Treasurer)

[REDACTED], Atherton, Manchester, [REDACTED]

1987 Rates

Ordinary Membership	£13.00	(U.S. \$25.50)
Family Membership	£15.00	(U.S. \$28.50)
Institutional Membership	£18.00	(U.S. \$31.50)
Junior Membership	£ 3.00	(U.S. \$10.50)

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, c/o. British Museum (Natural History), Cromwell Road, London, SW7 5BD 13 December 1986

The following application has been received by the Commission and has been published in volume 43, part 4, of the Bulletin of Zoological Nomenclature (11 December, 1986). Comment or advice on this is welcomed and should be sent c/o. The British Museum (Natural History), London, England. Comments will be published in the Bulletin.

Case No.

2571

Belemnites paxillosa Lamarck, 1801 (Mollusca, Coleoidea): proposed suppression of both generic and specific names.

P. K. Tubbs, Executive Secretary

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