

The Conchologists' Newsletter

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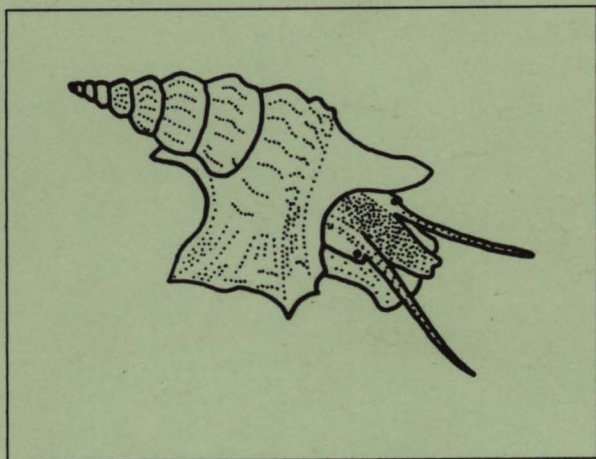
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The Conchologists' Newsletter

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Editorial

In the words of Adrian Norris (see Letters) we have come to the end of an era with the retirement of Peter Negus from the position of Editor of *The Conchologists' Newsletter*. This 'era' has seen the evolution of a well-respected publication from simple beginnings. Over the last twenty five years the Newsletter has provided an outlet for articles and notes of scientific merit which may not otherwise have seen print. It has also published many articles of more general interest while at the same time forming a valuable means of communication for members of the Society. All this was achieved under the guidance of Peter Negus. As a society we therefore owe him a great debt of gratitude for his sterling work on our behalf during his 'era'.

Just like a living organism the Newsletter must change and adapt to its external environment if it is to survive, and so evolution goes on. The most recent stage in this process is now underway. Driven by a number of external factors including increasing production costs and decreasing membership of the Conchological Society, Council, through its Publications Committee, took the decision to move from A4 to the smaller A5 format for the Newsletter. This change has enabled more modern production methods to be employed in its publication. This in turn brings benefits in terms of lower production costs, a more professional appearance and later submission deadlines. It is expected that the new 'look' will play an important role, in combination with various publicity materials and events now being planned, in recruiting new members to the Society. The change in submission dates will allow for the inclusion of more up-to-date information on field meetings, Society business and other events of interest to members. All of this should be of benefit to you, the members, as well as to the finances of the Society.

A change of style and format is not intended to alter the roles the Newsletter has assumed since its inception. Of course there will be some new ideas but the high level of quality this publication reached under Peter Negus will not be compromised. The actual content obviously depends greatly on

what you, the readers, submit for publication and I hope that more of you will consider sending in material before long. I am keen to hear your views on the changes introduced in this issue as well as on any other issue connected with the Society. I am grateful to all those regular contributors who keep the Newsletter going and I hope I can rely on you in the future. At the same time it would be good to have submissions from a greater range of members. There must be many of you out there who have seen or heard of something interesting that could be shared with the rest of us in the form of a short note. Equally, there must be members with a great deal of knowledge about a specialised area which could form the basis of a longer piece or even a series of articles.

Finally, I can reassure you that I do not intend to take up valuable space in future issues with editorials. However the changes introduced in this issue did require some explanation. Now read on, enjoy, and be inspired to write a piece of your own. I look forward to receiving it.

Paul Lee
Hon. Editor

Conchological Books: A bookseller's perspective

Part One

Tony Swann, Wheldon & Wesley Ltd

In this paper I hope to give you an idea of how Wheldon & Wesley operates, what sort of people we are and also comment on many of the major shell books one is likely to see offered for sale these days.

Two years ago Wheldon & Wesley celebrated its 150th anniversary. We date our origin back to a bookshop opened by William Wesley in the brewing town of Burton-on-Trent in 1840. I recently learned that Alfred Russel Wallace, then aged 17, spent some time in the town when he was first developing an interest in natural history. It would be nice to think that he found food for thought in our shop.

John Wheldon was born in 1807 and from 1823 to the mid-1840s worked as assistant to three different booksellers before setting up on his own in London in 1843. The first real record we have of his business is a catalogue issued in 1857.

Wesley's trade in the earlier period seems to have been mainly new books and some wholesale, whereas from about 1865 Wheldon catalogues are almost all devoted to natural history and other sciences, and by his death in 1892 he had issued 132 of them. As his epitaph one might quote the words of the great ornithologist and book collector Alfred Newton. In 1905 he wrote to a friend advising against asking around for a book he wanted, 'as that only induces the people to raise the price. I think I knew but one man who could be trusted not to do so. That was old Wheldon on Great Queen Street, Lincoln's Inn Fields. He has been dead for some years now but the shop still goes on and I believe in their principles.'

John Edwards, Wheldon's manager, became proprietor on Wheldon's death in 1892, and in 1904 he was joined as partner by

Harry Kirke Swann, my grandfather, who became sole proprietor of John Wheldon & Co. after Edwards died in 1916.

By 1920, when the book trade had recovered from the effects of the war and was expanding on a worldwide basis, both H.K. Swann and Wesley's son Edward, who succeeded his father in 1891, decided the two firms had so much in common they ought to unite, and in February 1921 the company of Wheldon & Wesley was incorporated. The last Wheldon catalogue, issued at the end of 1920 and overprinted with the name of the new firm, contained 2,000 items on invertebrates, among them a coloured copy of Born, the *Journal of Conchology* 1874-1918, Donovan's *British Shells* and a Perry.

Kirke Swann died in 1926. Control of the company fell into the hands of one W.J.C. Craddock who was an able salesman but a disastrous manager. Eventually Kirke Swann's widow Emma was forced to sack Craddock, install herself as Chairman and her son Charles as Managing Director, just in time to save the firm. That was in 1930 at the height of the great Depression when even the best-managed companies had difficulties.

During the Second World War the business just ticked over from a warehouse on the North Circular Road. Emma Swann died in 1943 and her sister kept things going until the war ended.

In October 1945 Charles Swann returned from service with the RAF and was joined in the business by his brother Howard, my father, who is still very active in the business at the age of 72. It was at this time that we saw a sustained rise in the company's fortunes. Although there were few fine books in stock there was a considerable quantity of the sort of scientific books and periodicals which were greatly in demand. There was also a healthy cash balance at the bank instead of a crippling overdraft. The firm's long reputation as a specialist brought its reward in the form of opportunities to buy collections it had helped form in the past.

First among these was the mollusca library of E.R. Sykes. It was probably the finest and most complete on the subject ever formed by one man, and is the subject of an appendix in the

second edition of S.P. Dance's *History of Shell Collecting* (1986). I am indebted to my father for some reminiscences.

In 1947 he was summoned by letter to a beautiful old manor house in Dorset. Sykes' family had a bank which was one of those amalgamated to form Barclay's. My father had been in the business only a couple of years but Sykes and his wife treated him like an old family friend. Sykes took my father through all his books, the great feature of which was that Sykes had had the bibliographer Sherborn to stay with him and annotate many of them inside the covers with pencil notes. All the books were listed by my father, who then returned to the office and worked out a price with his brother Charles which in due course was accepted. It was described as 'the most marvellous library on the subject you could imagine. He had every book - except Poli.' He had not only the first edition of Martini and Chemnitz in 12 volumes but also the second edition, which ran from 1838 to 1920 in 40 volumes, and we have only ever once had another set of that.

As for Reeve's *Conchologia Iconica*, Sykes was on his way to the bank in London one day. He walked along Farringdon Road where there was a book market. On one barrow he saw a volume of Reeve, so he asked the man if he had any more and was told, 'Oh yes, I've got a heap of them!' The man took him to the shed where he kept his stock and there was a large part of Hanley's library. Among many other things was a complete set of Reeve. Incidentally, Peter Dance has pointed out to me he believes much or all of the Hanley library was originally acquired by a bookseller in Penzance, so some research is needed there.

For the whole library in 1948 we gave about £1,500, a lot of money in those days. Apparently Sykes had brought the majority of his books from Wesley before 1914, so even then we were very much in the business of 'recycling' collections from old customers. If you read the appendix in Dance's *History...* you will find our catalogue of this collection even more astonishing when you realise that many of the finest books had already been sold to our then two most important customers for the subject, the Field Museum of Chicago and the Allen Hancock Foundation whose library is now located in the University of Southern California.

Sykes' fine dedication copy to the Empress of Austria of Born's *Testacea*, bound in red morocco with the imperial eagle on the covers, went to Stilman Berry in California for £15. Berry competed for the books with the notable collector Dr Irene A. McCulloch, whose personal library is in the Santa Barbara Museum of Natural History.

Many books went to J.R. Tomlin, whose library is now in the National Museum of Wales. A friend of Nora McMillan's who knew Tomlin as a young and handsome man is quoted as saying, 'Tomlin would flirt with a broomstick if it wore a skirt!' Albert Salisbury was another good customer. My father describes dealing with Sykes' library as his biggest education in shell books because, under his elder brother's guidance, he wrote practically the whole section of catalogue 67 which contained it, using also what Sykes told him and Sherborn's notes inside the covers of the books.

A little later we bought the library of Baini Prashad, Director of the Zoological Survey of India, not in very good condition but a considerable quantity of books, mostly on mollusca.

The next really big collection was the Conchological Society's library, in about 1957. There had been quite a discussion in the Society's Committee as the library had been stored for years unused in a cellar at the University of Leeds. The University wanted the space and no-one in the Society would look after it because, like many amateur societies, it had no home. It was therefore decided to sell the books and use the money for promoting the other activities of the Society. When my father went up to look at the books many of them were lying on the basement floor and, with the pollution from coal in Leeds some 50 years ago, it looked as if someone had sprinkled soot all over them. We spent a lot of time cleaning them. A copy of Sowerby's *Thesaurus*, for example, in nice red morocco, had to be washed with saddle soap to get the binding in saleable condition. This collection appeared in our catalogue 88 of 1958 when the attractive Swainson *Exotic Conchology*, 2nd edition of 1841, was offered for £15.

Then came the collection of Ronald Winkworth, one of the two secretaries of the Royal Society. He had died some ten years

before and his widow had not wanted the books moved, keeping them as a sort of memorial to her husband. When she died we dealt with Winkworth's nephew and it was a good collection. Many papers of which he did not have a printed copy he would write out in longhand in a beautiful script. The nephew was astonished by how much we were able to give him for these books. Nora McMillan remembers staying with Winkworth and his wife and taking some specimens of *Rissoiidae* to be identified, which Winkworth promptly named. She exclaimed, 'but these are not the names in your list (that is the List of British Marine Mollusca in *J. Conch.* Vol. 19, 1932), to which he replied, 'I don't use those names. I use Jefferys and translate.'

Perhaps the last major mollusca library we bought was that of Albert Salisbury in 1964 after the company moved to Lytton Lodge. Salisbury used to arrive at our premises in an ancient car and was always smart in his appearance. It was a large house in which the books were located, but in an extraordinary mess. Again my father dealt with the nephew, who said, 'My uncle's wife died on their honeymoon about 1900 and he never married again, although he did have a housekeeper until recently.' One of Salisbury's other hobbies was the organ and the drawing room had a fair sized organ built into it. His study was so cluttered that he ended up with a desk on the landing outside and the latest acquisitions of shells and books were in orange boxes on the floor. In the drawing room the sofa and armchairs were piled high with numbers of the various journals which he took. Some of his books went to the Royal Scottish Museum but we got the majority. My father remembers him as a charming man and Nora McMillan remarks that he also invented the immersion heater.

All this was before my time. I joined the firm in 1974. My degree was Politics and after Reading University I went to the RAF College Cranwell, graduating as a pilot, but finding I was emotionally unsuited to a military way of life I resigned during advanced training. I taught English in Bordeaux for a few months after leaving the Air Force but soon concluded that there was little future in that. I came back to give the family business a try and have now been a bookseller for nearly 18 years, having

been promoted to Director in 1983. I am delighted to say I have found my niche and thoroughly enjoy my job. It is fortunate that I quite rapidly developed not just a love of books, but a 'feel' for books and their importance and value, which is not quite the same thing. Perhaps I could explain that a bit by saying my customers are sometimes puzzled when I offer more – or less – than they think a book is worth. I occasionally have to explain that a bookseller's perspective on a work might be different from that of the enthusiast or working scientist and I may sometimes have a different idea of its value, based on what I think we can sell it for. Naturally I cannot carry the price of every one of the many thousands of books I handle over the years in my head, but that 'feel' for books I mentioned means I very rarely make major mistakes.

There have been significant changes in the market since I joined Wheldon's, such as increasing competition from the auctioneers (now checked by the recession and lack of books for sale) as well as the growing impoverishment of academic institutions around the world. By the early 1980s I had acquired a good working knowledge of our field and developed the initiative to begin buying and selling. I soon found it is enormously satisfying to purchase a book in Hitchin, or Milan, or Sydney, knowing it is a good buy, having the pleasure of handling and collating it and then passing it on to a customer who might have been looking for it for years and would be delighted to have it. It is a characteristic of the trade that in the larger antiquarian bookshops you usually find a number of people who are unambitious and apparently happy to stay doing routine clerical work. However, it is essential you have at least one member of staff who is prepared to jump on a plane to Stockholm or Paris at short notice and get out there to find the books. It is, of course, also essential that one has the supporting staff to help process and sell the books when you have bought them. The key, though, without a doubt, is buying. If you have a good book at a reasonable price there is little difficulty in selling it. The problem increasingly, indeed the general lament from the trade these days, is the difficulty of finding good stock.

Thinking of the major collections of shell books I have seen in my 18 years with Wheldon's, I have to confess there have been remarkably few of them. My first experience of a really big shell library was in 1987 and was also one of my biggest disappointments. It was the collection of the late Juan Gavala who lived near Cadiz. I flew down to Seville and met his daughter, who turned out to be a most charming and vivacious lawyer. She and her husband drove me down to a small town near Cadiz where Gavala had lived and I there discovered one of the most fabulous mollusca libraries you could hope to see. There was an imperfect copy of Poli we had sold him in 1964, a beautiful clean complete copy of Martyn in red straight grain morocco, numerous works by Hidalgo, Dautzenberg, Sowerby and a host of others.

I spent a delightful day working through the books and the following day in my hotel back in Seville I finalised prices and prepared the formal offer. It was one of those happily fairly common cases where the customer became a friend and there was complete trust on both sides. When I presented her with the offer she said, 'That is double what Sotherby's told me they could get for the books' and accepted it. I already knew we would have to prepare fairly involved customs documentation but it then emerged that the government had the right to step in and buy any national treasures at the price a foreign dealer was offering for them. I crossed my fingers and hoped the government would not realise that this collection certainly amounted to a national treasure. You can imagine my disappointment when a few weeks later Senora Gavala wrote to me saying the government had decided to purchase the entire library and that it would probably go, if I remember correctly, to the Maritime Museum in Cadiz. If ever you are on holiday down there I would recommend you try and locate it, because I can assure you this was as fine a collection of shell books as you are ever likely to see.

We do not just have problems with Spain. The bureaucracy in France and Italy often makes trade in old books difficult. In spite of this we do a fair amount of business with France. I speak French, love the country and go there often, but it is a very awkward place to do business with and that will not change with

the 'Common Market' even though the last major specialist in natural history in Paris, Librairie Rousseau Girard, has just closed and I intend to ensure a fair amount of their business comes to us.

The best collection of shell books we have offered in my time was very recently, in our catalogue 193 of April 1991 and included items such as Born, Buonanni, Gualtieri, Hirase, a set of the *Journal de Conchyliologie*, Rumpf, and Tryon & Pilsbry's *Manual of Conchology*, all of which we sold rapidly. Not only do we now export 67% of our turnover, very many of our major purchases are from abroad – we could not survive for a moment on the British market alone. A visit to a natural history museum in California led to a useful purchase of some of their duplicates and enhanced the mollusca section to which I refer, the bulk of which came from Australia. You can see how fortunate I am, loving books and greatly enjoying travel. I have even visited Hawaii on business twice in recent years.

I wish I could tell you more about large collections of shell books I have seen or bought, but they do not exist. It is very bad for any market when the collectables are so scarce that it is extremely difficult to form a major collection in one lifetime. People tend to lose interest if they cannot find material to build up their collections. I can think of serious shell book collectors in places as far apart as Germany, Portugal and South Africa who have plenty of money and regularly send us letters and want lists, but we cannot find the books for them.

Russia and the birth of *Ruthenica*

Fred R. Woodward
Art Gallery and Museum, Kelvingrove, Glasgow G3 8AG

During the period 10–23 March 1992 I had the good fortune to be invited by Dr N.I. Kochetova on behalf of the All-Union Research Institute of Nature Conservation and Reserves to visit Moscow and St Petersburg to discuss future co-operation in regard to conservation measures for the larger freshwater bivalves belonging to the Unionoida.

My first visit was to the Institute itself which is situated in an old building in a large park on the outskirts of Moscow. The offices are cramped and poorly equipped by western standards but at least had computer-based records which appeared to be far better than some western institutes with which I am acquainted. The department also housed some voucher material from field surveys and had close contact and integration with the Zoological Museum. The limited library facilities lacked basic western publications and I would urge my western colleagues to look out their duplicate reprints and books and forward them to suitable institutions, societies and individuals throughout the former Soviet Union.

Regardless of these shortcomings the scientific influence of the Institute is considerable and reflects the dedication of the staff who work together as an integrated team and include individuals doing research on spiders, water beetles, bumble bees, mollusca, etc.

Next, in company with Dr Victor Goryachev, a specialist on marine gastropods, especially *Neptunea*, I visited the Zoological Museum. There I met the staff including Dr Dmitri Ivanov, Curator of Malacological Collections, and Dr Yuri Kantor, Associate Editor of *Ruthenica*. The collections are relatively extensive and stored according to the system of Starobogatov whilst the library is again relatively poor in western literature.

Again, however, the comradeship and enthusiasm of the staff more than compensated for the deficiencies in facilities.

Before leaving Moscow for St Petersburg I had the privilege of meeting Dr Andrej Tchepalyga from the Institute of Geography, Academy of Sciences, and spent a productive couple of hours discussing fossil Unionids. We met again the following day and I had a brief opportunity to examine the extensive material in his collection and had to concede that many of the species and genera described from deposits in the former Soviet Union are valid. My only previous knowledge of them is based upon illustrations.

Dr Goryachev then escorted me to St Petersburg and we visited the Zoological Institute where I had the pleasure of meeting the staff and, in particular, Dr B. Sirenko, a specialist in Chitons, and Dr Starobogatov, a renowned expert on Unionids and President of the Russian Malacological Society. He showed me the extensive mollusca collections which are stored according to Thiele, including Margaritiferids placed in the genera *Dahurinaia* and *Middendorffinaia*. A brief examination of dry shells indicates that some of these may indeed be distinct species but whether the genera are distinct from *Margaritifera* appears less certain.

The molluscan library is extensive, being rich in western publications from before about 1980 when financial constraints resulted in the termination of subscriptions.

Just prior to leaving St Petersburg I had an opportunity to meet Dr Orest Scarlato, Director of the Zoological Institute and an authority on marine bivalves. It was a refreshing experience to behold such an eminent scientist and Director as he guided a party of visitors around his museum displays, explaining to them the need for animal conservation.

Finally some idea of the general enthusiasm and optimism of our Russian colleagues may be gained from their publication of a new journal, *Ruthenica*. This would be no small achievement under normal circumstances, but even more so considering the enormous disruption to everyday life coupled with financial and material constraints resulting from the recent political upheaval

in the former USSR. I feel privileged to have been perhaps the first western malacologist/conchologist to have received this historic work and wish to endorse the sentiments expressed in the editorial for this new journal which reads as follows:

Dear Reader!

You are holding in your hands a new journal, *Ruthenica*, *Russian Malacological Journal*. What is *Ruthenica*? *Ruthenica* Lindholm, 1924 is a genus of pulmonate gastropods that contains an only species, *R. filograna* (Rossmassler, 1836), a small elegant clausiliid, living in forest litter. But why just *Ruthenica*? Why not *Chiton*, *Helix*, *Mytilus* or *Octopus*? Because *Ruthenica* is a latinized name of a medieval state, the Galich-Volynian Russia, used in Western Europe during the late Middle Ages and further transferred to all Russia to become the synonym of Russia. From this word stems the name of the chemical element ruthenium ('Russian element'). Thus *Ruthenica* is the symbolic nomination of the 'Russian Mollusk'.

Moreover, this mollusk was also chosen as the symbol of our journal to emphasize that we do not intend to limit the circle of our authors and readers by the borders of Russia. Not at all! The names Ruthenes (or Rusines as they called themselves) and Russians, though being of the same stem, nominate two different peoples. The Rusines (Ruthenes) were the Greek Orthodox population of Bukovina, Galicia, and Subcarpatian Russia, former parts of the Austro-Hungarian Empire. Now this nation calls itself Subcarpatian or Submountain Ukrainians and speaks not Russian but Ukrainian (though peculiar Ukrainian, similar to the ancient Slavonian). Further, the area of *R. filograna* also does not coincide with the borders of modern Russia stretching from south-eastern France and the Alps up to Moscow and Kiev and embracing the western Russia, Estonia, Latvia, Lithuania, Byelorussia, western Ukraine, Poland, Czecho-Slovakia, Hungary, Romania, eastern and southern Germany, Switzerland, Austria, and parts of Yugoslavia. This symbolizes our will to see the citizens of many countries and sovereign republics, former parts of the USSR, among the authors and readers of *Ruthenica*.

And the last: the species name. The name *filograna* (Ital.) means the elegant, fine, filigree. This name reflects our wish to publish fine and 'elegant' papers in the first turn in the journal.

The taxonomy, anatomy, morphology, and phylogenetics of mollusks will be major subjects of the *Ruthenica*. However, of course, not only these branches of malacology are considered. We intend to publish papers concerning ecology, physiology, genetics, biochemistry, etc., if the main objective, the 'focus' of the submitted paper is the mollusk itself but not a structure or function studied using a mollusk because it was more convenient for the author to use a snail, mussel or squid than a fly, rat or rabbit.

We want our journal to be modern and international. Firstly, it is expressed in that the journal will be bilingual. Papers may be written in Russian or in English with summary in both languages, and when the paper is written in Russian, the English summary should be maximally detailed, and it may be longer than the Russian one. And, most importantly, we hope to maintain a high quality of publications primarily due to the careful reviewing of the papers. However, authors are highly responsible for the contents of papers. We are lacking full-time editorial staff, and for all of us the work in the journal is a kind of 'public work'. Only foreign authors may be sure that we will translate their summaries and figure captions into Russian.

There will be no limits in the volume of submitted papers. Moreover, we welcome large papers (50 to 70 typewritten pages and even longer). We realize that publication of long papers, especially on taxonomy, is often difficult. However, of course, we do not intend to overstep reasonable limits and to publish monographs. Principally, we consider the possibility of publishing monographic works as supplements to the journal. We take into account that the time we are living in is not the best one for our (and not only our!) science and we do not expect that our journal will be at once overflowed with high quality papers (although we hope). So the journal will be issued, at least initially, only twice a year. And then we will see ...

We invite the co-operation of all malacologists and scholars

engaged in other fields of biology and Earth sciences dealing with mollusks, irrespective of the country they are living or the institution they are working in. Our journal will not recognize the borders and citizenship invented by man as the mollusks, the subjects of our studies, do not recognize them.

Let us wish all our authors and readers including members of the Editorial Board (since they are also both authors and readers) to live up to a hundred years, as *Arctica islandica*, be as merry as *Ostrea edulis*, and as active as the flying flying squid! Every success in studies and good luck! Crawl, snail ...

Editor-in-Chief

The editorial claim that the journal will cover taxonomy, anatomy, morphology, and molluscan phylogeny is well exemplified by this first issue which contains the following:

A.A. Schileyko, Problem of the phylogeny of higher Pulmonata. Pages 3–16.

Yu. I. Kantor, On the morphology and relationships of some oliviform gastropods. Pages 17–52.

A.V. Sysoev, Preliminary analysis of the relationship between turrids (Gastropods, Toxoglossa, Turridae) with different types of radular apparatus in various Recent and fossil faunas. Pages 53–66.

A.N. Suvorov and A.A. Schileyko, Functional morphology of the apertural armature in the Lauriinae subfamily (Gastropoda Orculidae) and some problems of the systematics of the group. Pages 67–80.

D.L. Ivanov, Tentacular region of the central nervous system of the Mollusca and the homology of the organs of locomotion. Pages 81–9.

This is followed on pages 90–2 by Instructions for Authors.

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In conclusion I would like to extend my sincere thanks to all of my new-found friends and colleagues who made my short visit to Russia such a memorable one and especial congratulations to the editors, authors and all those responsible for production of *Ruthenica*, which forms a milestone in Russian malacology. Finally, I would urge my western colleagues to do everything they can to assist and encourage this increased Russian-Western co-operation.



Election Results

At the AGM on 21 March the ballot papers for the election of officers of the Society and council members were counted. This has resulted in two changes to the officers listed in the membership card, namely Mrs S. Davies is now Hon. Secretary rather than acting Hon. Secretary and Mr P. Lee becomes Hon. Editor (Newsletter) following the retirement of Mr P.E. Negus. All officers will now serve until the next AGM in March 1993. Three new council members were also elected to replace retiring members. The new members, Mrs E. Platts, Miss J.T. Sawyer and Miss E.F.A. Fogan, will remain on council until 1995.

The Tiger Cowry, *Cypraea tigris* L. 1758: Cowry Cameos

Part One

J.E. Llewellyn-Jones

Thundersley, Essex,

My interest in tiger cowry cameos began when a member of the Conchological Society – if I remember correctly it was Terry Crowley's wife Wendy – brought up to a pre-Christmas December meeting an old cowry with the Lord's Prayer carved on its outer surface. This beautiful example of a religious souvenir brought back a memory of reading about the tiger cowry in Peter Dance's book, *Shells and Shell Collecting*, where he says, 'In bric-à-brac stores it is still possible to pick these up embellished with the Lord's Prayer.'

We know now that these cowries were brought home by seafaring men, and they graced the Victorian mantel-pieces of Europe and the Americas for several generations. During the early 1900s they were shipped from Zanzibar by the ton and sold at eastern American beach resorts, usually with the Lord's Prayer etched on the top surface (Figure 1).



Figure 1: Cowry cameo produced early 1900s

Since then I have found my own early twentieth-century example. What is even more interesting is that in 1985 I purchased from the Shell Shop, Blackshaw Coastal Ltd, Southend-on-Sea (next to the longest pier in the world) a modern example of a tiger cowry with the Lord's Prayer etched onto the upper surface (Figure 2). But, as one can see, it is nothing like as intricate or beautifully executed as that produced in the early 1900s.

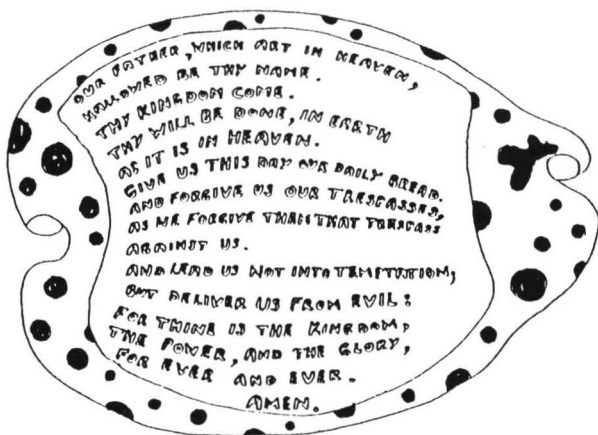


Figure 2: Cowry cameo bought 1985

The uses of the tiger cowry discussed in the last article are, as can be seen, numerous, but its most common western use is that in which it is either carved or etched to produce a cameo effect. These cameos used to be made in Naples, alongside the Cassis or Helmet shell cameos, in the small waterside workshops dotted around the harbour, but today they are made in the Far East, including the Philippines, and exported to the West in large numbers. The trade has not only become very large indeed but British shell shops, seaside resorts, in fact anyone interested, can order both on a single or en-mass basis whatever picture or motto they wish. It is a pity that today, with mass production, the standard of the cameo produced has deteriorated, not so much in picture or style but in the way the different colours and layers are used. A good example of a simple modern cameo cowry is that produced for Southend-on-Sea of a shark made up of one layer only (Figure 3).

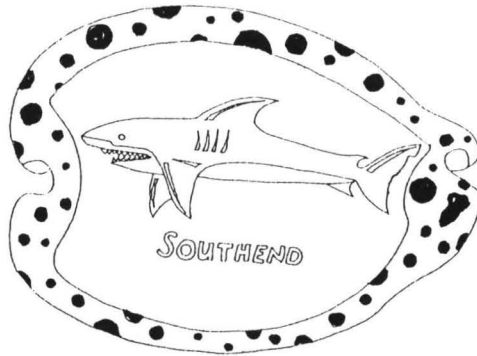


Figure 3: Cowry cameo bought 1987

The two best examples that I have in my possession were produced in the 1850s probably, by their standard, in Naples. They are of a fisherman and fisherwoman, a favourite mantel-piece topic, and referred to as a 'Him and Hers' (Figures 4 and 5). Every layer of the shell has been used to produce what one can only describe as a work of art. I cannot do justice to these two cameos in this article, but I describe below how these layers are produced and used.



Figure 4: 'Him'

(Made in the 1850s)



Figure 5: 'Her'

Today most tiger cowry cameos are made using only two layers, the top and bottom layers. This can be done in two ways, the first by using a grindstone and hacksaw and then cutting the shape, followed by burning off the surfaces not wanted. If one takes a tiger cowry and simply cuts away pieces from the top of the shell one can see that the shell is made up of five coloured layers under the surface, which I have illustrated and labelled (Figure 6). If you would like to see what these colours look like then you can either get hold of an old tiger cowry and grind away the top exposing the layers or, using crayons or felts, colour in the circles on the figure as suggested.

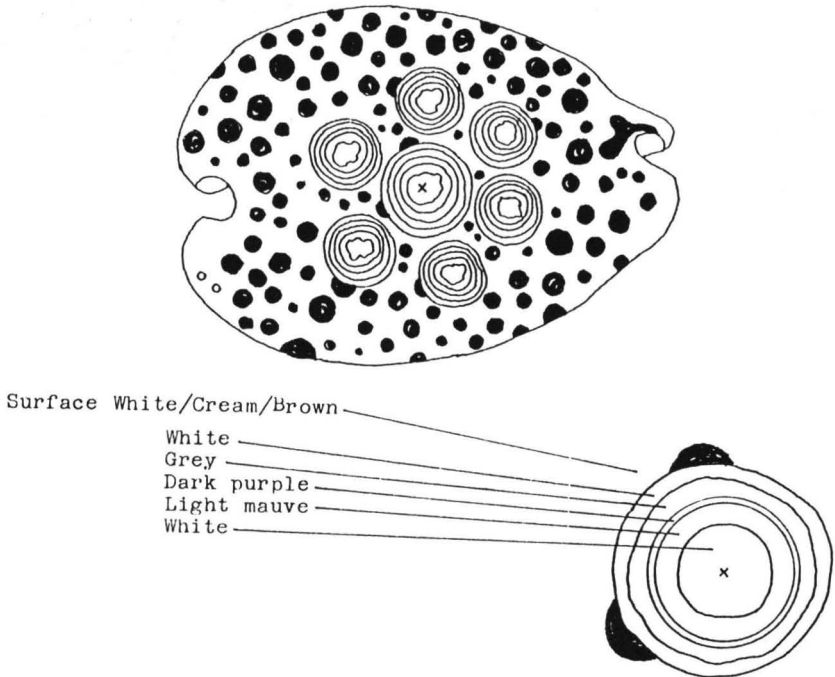


Figure 6: Cowry shell with pieces cut away showing the 5 coloured layers under the surface.

The second method of producing a cameo is by using acid and wax, but it is very much more difficult and time-consuming to work with for the amateur. A close friend of mine was on holiday in Thailand where a beach-side vendor was producing souvenirs

by etching with acid the shells of *Cypraea mauritiana*. The results unfortunately were very rough indeed, but the thought was what counted of course. Etching a tiger cowry is like producing an old fashioned printing plate. One has to carefully eat away the parts of the shell that one doesn't want, leaving behind the different layers and colours that one wants, so producing the picture. The result can be disastrous if the wax isn't put on properly or the time required for the whole operation is rushed. The acid that works and is used today is hydrochloric acid because it acts on the calcium carbonate of the shell, which in the cowry makes up the whole shell, a periostracum not being necessary as the mantle covers the shell when the animal is moving around. Of course the best results are produced using both methods, i.e. etching out the shell parts not wanted first and then finishing up by cutting and polishing for the final result. Today one or other method is used with little finishing off before the result is exported or handed over for sale to the customer. Figure 7 shows how each layer is etched or carved away exposing another colour.

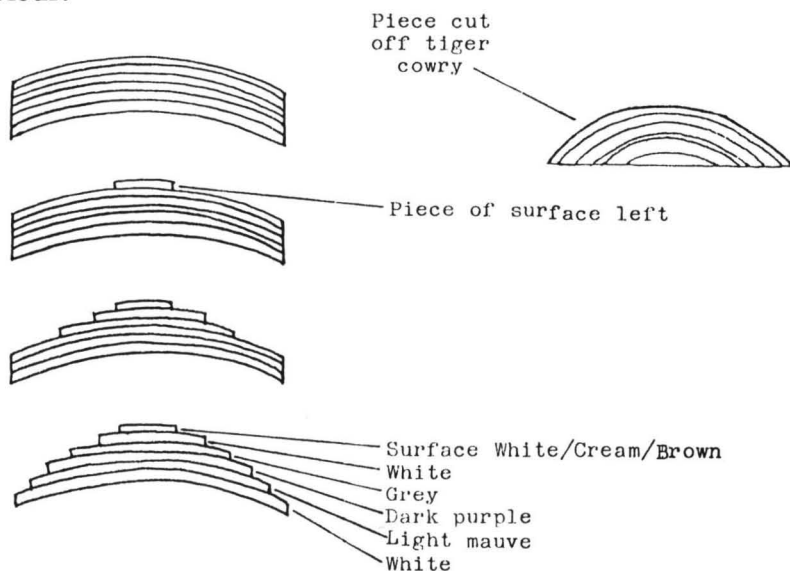


Figure 7: How a cowry cameo is made by removing the various layers

Over the years I have collected various examples of cowry cameos. What is particularly interesting is that most of them, although not all, have been bought at seaside resorts, a connection with the sea in one way or another. Figure 8 is a map of Europe showing all the places connected with my collection of cowries and highlights this point.



Figure 8. Map showing where the various cameo cowries originated from.

I would like to thank Eleanor Fogan for allowing me to use some of her cowry cameos, and Caroline Sherwin for letting me use the cowry cameos that she brought back from the Gulf in 1987. These cameos will be illustrated in the second article with a brief history of each.

A Guide to the British Anomiid Bivalves

Phil' Palmer

[REDACTED], Sutton, Surrey [REDACTED]

Anomiids are sessile, monomyarian, filter-feeding pteriid bivalves, classified next to the Pectinacea. In both the anomiids and the pectinids the left valve (LV) is the upper valve, and the right valve (RV) the lowest. In both, the byssus modifies the RV, a notch in scallops, a slot and hole in anomiids. The single adductor muscle is, in both, the posterior adductor. Thus anomiids might be viewed as modified scallops with a calcified byssus.

The lowermost muscle in anomiids is the posterior adductor (PA), leaving a single muscle scar in the RV and the lowest (ventral) scar in the LV. Its function is to pull the lower RV up against the LV. The uppermost (dorsal) muscle connects the LV with the calcified byssal plug which is cemented to the substrate: when it contracts it pulls the LV down hard against the substrate. In *Anomia ephippium* a third muscle lies between the posterior protractor, but is absent in the other three species. The muscle attachment scars are radially furrowed in *Monia*, but smooth in *Anomia* and *Heteranomia*. Figure 1 shows the position and function of the byssal muscle (BM) and the posterior adductor (PA).

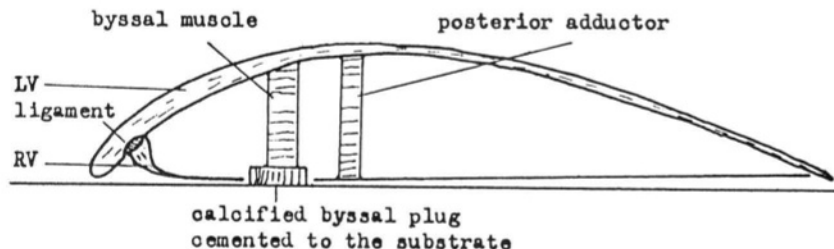


Figure 1. Sketch section showing the distribution and function of the byssal and adductor muscles: it is diagrammatic and not to be taken too literally.

The gills are filibranch, like the mussels and the scallops, with descending and ascending filaments in *Monia* and *Anomia*, the latter has an additional membranous flap; but, in *Heteranomia*, there are only descending filaments. See Figure 2 on pages 26 and 27.

Since anomiids are permanently attached to a substrate they tend, like oysters, to mimic the shape of the substrate in their upper valves. *Anomia ephippium* is particularly prone to play this trick when attached to *Pecten maximus* or *Aequipecten opercularis*, so that 'xenomorphic' (Gr. stranger – shape) sculpture is superimposed spuriously on the upper valves of anomiids and oysters.

Two keys exist in the literature for the identification of the four British anomiids: Tebble (1966) and Eales (1939). Both are based on Winckworth (1922). A third is here added, based on external shell morphology.

Tebble, 1966, p. 35:

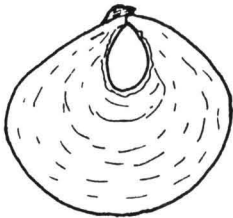
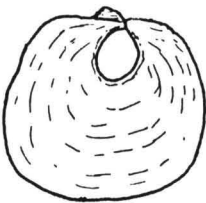
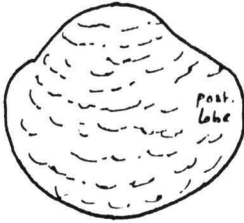
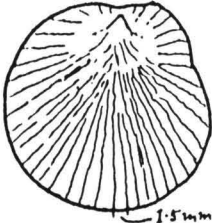
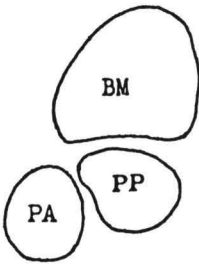
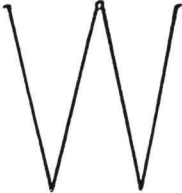
1. Left upper valve with three muscle scars	<i>Anomia ephippium</i>
Left valve with two muscle scars	2.
2. Left valve muscle scars small, distinct, not furrowed	<i>Heteranomia squamula</i>
Left valve muscle scars furrowed	3.
3. Adductor and byssal scars separate and distinct	<i>Monia patelliformis</i>
Adductor and byssal scars form one continuous scar	<i>Monia squama</i>

Eales, 1939, p. 150, uses both muscle scar and gill characters:

- | | |
|---|---------------------------------|
| 1. Upper valve (left) with three muscle scars.
Gill W-shaped with a short membranous
flap, or fifth lamella, on the outer lamella | <i>Anomia ehippium</i> |
| Two muscle scars on the left valve | 2. |
| One muscle scar on left valve, obviously
formed by the union of two scars | <i>Monia squama</i> |
| 2. Two scars separated on shell. Gill W-
shaped but without the fifth lamella | <i>Monia patelliformis</i> |
| Two scars adjacent. Gill $\wedge$ -shaped, no
ascending filaments | <i>Heteranomia
squamula</i> |

Palmer here uses only external shell morphology:

- | | |
|--|---------------------------------|
| 1. Shell without radial sculpture (except
xenomorphic), posterior lobe usually
welldeveloped in LV making it
asymmetric | <i>Anomia
ehippium</i> |
| Shell with radial sculpture | 2. |
| 2. LV with 30–40 ribs about 1–1.5 mm apart | <i>Monia
patelliformis</i> |
| LV with microscopic striations, hardly
visible and crowded together 5–6 per mm | <i>Monia squama</i> |
| LV small with hollow subcylindrical
spines | <i>Heteranomia
squamula</i> |

	<i>Anomia ephippium</i> < 70 mm	<i>Monia patelliformis</i> < 40 mm
RV		
LV	 post. lobe	 1.5 mm
Muscle scars	 BM PA PP	 BM PA PP
Gill		

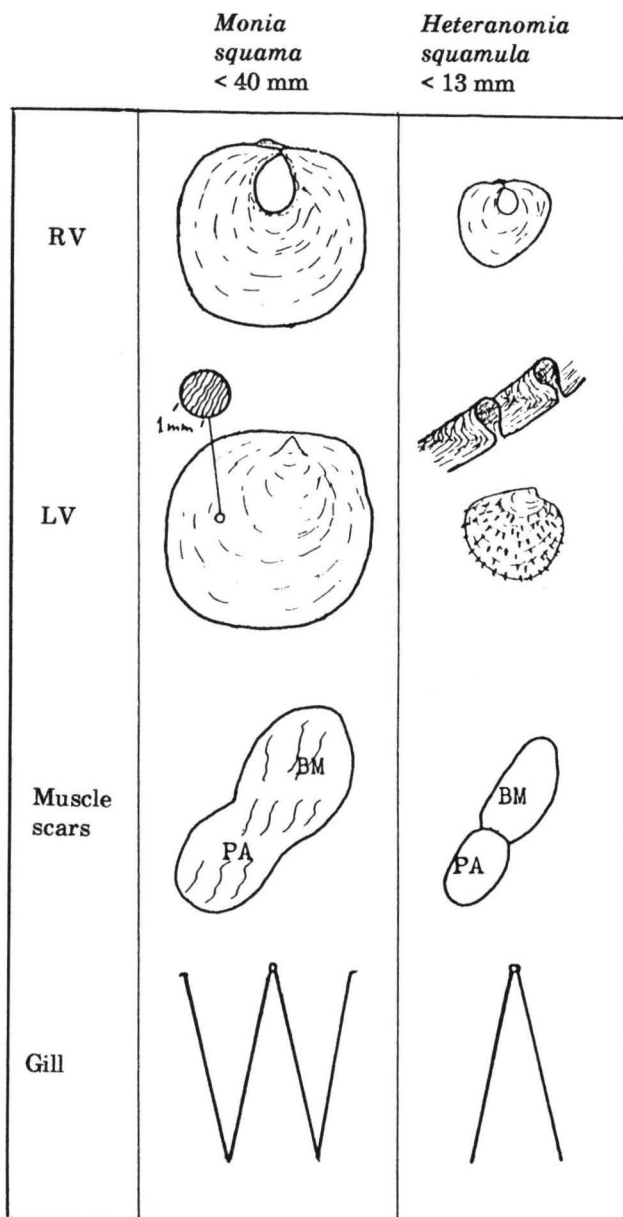


Figure 2 Combination of the three keys showing the essential differences between the four species: BM = byssal muscle, PA = posterior adductor, PP = posterior protractor, RV = right valve, LV = left valve.

Good figures of the external shell characters can be found in Sowerby 1859. In general, a large specimen up to 70 mm is likely to be *Anomia ephippium*; specimens up to 40 mm with radial ornament will be *Monia*, and rib-density will separate them; while small specimens up to 13 mm may be juveniles of the above three or, if they have spines, *Heteranomia squamula*. Winckworth, p. 32, offers the following remarks: 'All the species are very variable in shape, thickness and sculpture: and the young of all four are discouragingly similar in appearances, while the muscular scars are often very faint in small examples'. On p. 34 he says of *H. squamula*, 'There is no distinction between the smooth and aculeate (spiny) forms: I have taken wholly smooth, wholly aculeate and intermediate forms on the same *Chlamys opercularis*.' It is true that the smooth forms of *H. squamula* are hardly distinguishable from the equivalent growth stage of *Anomia ephippium*. However, if you have 'wholly aculeate', 'wholly smooth' and the intermediate forms as well, it is highly probable that you have *H. squamula* in all its varieties: and you can falsify the hypothesis by dissecting the gill and finding that it has ascending filaments.

This guide was presented, rather tentatively, at the annual British Mollusca Workshop, November 1991. Anomiids have always given me a great deal of trouble, so this presentation is equally tentative. Feedback from other marine workers will, I am sure, be welcome to all – especially me.

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A Stroll in Swedish Lappland

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Have you ever wanted to go North, to the Far North, to the Arctic, the land where the sun never sets?

As you all know, Stockholm, the capital of Sweden, is well to the north but I can assure you that, at the airport, at the end of June, it can be warm, very warm. I was about to fly to the most northerly town in Sweden, Kiruna, well within the Arctic Circle. What would the weather be like there? I arrived at Kiruna at six in the evening and while the sun may never set in the Arctic summer it can still rain!

So my first impressions of Swedish Lappland were that it was wet and cold. But what a wealth of vegetation this climate has produced. Kiruna itself does not, quite frankly, have a lot to offer the tourist but, if you like wilderness, this is indeed a paradise. Such an abundance of flowers grow in the unspoilt heaths and bogs which surround the town and, as I will show you, it's not too bad for molluscs either. But what, you will ask, what of that flaw in paradise, that fearsome creature yet no serpent? This paradise is cursed with the most welcoming of guests, the mosquito. Well, modern chemistry effectively puts pay to that. When you go to the Arctic on no account forget your insect repellent and don't go in for any half-strength formulation either!

To get an impression of the country around Kiruna imagine a heathland, slightly hilly, sparsely covered with birch and pine trees. Leave, in your mind's eye, the bilberry but remove all traces of heather and gorse and replace them with *Empetrum*. Now add, in damp groves of stunted birth, a deep carpet of purple-blue cranesbill with the black and white flowers of Swedish cornel beneath, and where it is wetter, by a spring or muddy stream, add a burst of bright yellow globeflower and the tall-flowering stems of angelica. And don't hold back in your imagination for the whole scene is quite stunning! Now turn your attention to the pools

and lakes, of which there are a great many. Fill some with sedges; others, no more than wet peaty hollows, must be planted with dwarf birth, not the few twigs that you might see on some northern British hillside but acres of the plant. Lastly, you must add the Arctic willows which clothe the damp hillsides and edges of the pools. There are a number of species – look them up in Keble Martin, which range from dwarf plants to small trees, but at this time of the year all are covered in their conspicuous silky fruits. Then, of course, there's the weather!

Now that you have an idea of the vegetation you can set off in search of molluscs and, realising that the vegetation indicates a leached and acid soil, you will naturally head for the damp birch groves which are shown by their rich flora to be the most base-enriched habitats. Here, the first molluscs that you meet will be familiar to you: *Euconulus fulvus* and *Vitrina pellucida*. Press on! You will find the Arctic fauna *Discus ruderratus*, *Zoogenetes harpa*, *Vertigo ronneyensis* and *Nesovitrea petronella* – but it will be slow work. *Discus* and *Nesovitrea* are perhaps easiest to find on the banks of small streams where flooding has enriched the soil. They live under the leaves and twigs. Look out for the purple flowers of alpine bartsia which indicate some base enrichment. Before leaving Kiruna you must look at the Arctic willow fringe of the lakes, for here I found *Vertigo modesta arctica* in abundance. Find a site where the lake butts onto a slope for this will result in eutrophication of the peaty soil which is, I am sure, an important factor. Where the willows thin out and the boggy vegetation of the lake takes over, turn over the twigs and leaves and there you should find *modesta*.

To the north-west of Kiruna, at the western end of lake Torneträsk, close to the Norwegian border, the country becomes mountainous. In general aspect it is much like the Scottish Highlands. You can get here, Abisko or Björkliden, by the railway which runs from Kiruna to Narvik or nowadays you can use the road. Although the flora of this region is similar in many respects to that which I have already described, the rocks around Abisko are calcareous and the hillsides are flushed with base from broken-down rock and groundwater seepage. The National

Park at Abisko is famous for its Arctic flora but, as collecting is forbidden there, we will restrict our attention chiefly to the north-east slopes of Njuolja, outside the park. The flora of these slopes, at the limit of the treeline and below the permanent snowfields, is quite different from the predominantly ericaceous assemblage of the base-poor lowlands around Kiruna. The mountain is clothed in a rich turf of mosses, sedges and dwarf willows conspicuously flowered with the calciphile *Dryas octopetala* (mountain avens). Hard water seeps from springs to form flushes that vary in structure according to the slope and degree of wetness. The wettest consist of a soft, limey mud with only occasional tufts of sedges; others have a feeble flow of water beneath a carpet of low plants, while the driest appear to be wet only occasionally.

Examination of the molluscs of these sites is most rewarding for the species are zoned according to the degree of wetness which will approximately parallel the base status of the flush. Thus, *Columella columella* is abundant in the sparse vegetation of the muddy, highly basic flushes but absent from the relatively dry habitats in which *Dryas* flourishes, whereas the converse is true for *Vertigo alpestris*. *Vertigo modesta arctica* appears to be one of the least demanding of species with respect to base status and it is to be found with *V. alpestris* and also in wetter flushes but not in the wettest. *Vertigo genesii* is restricted to wet flushes with plenty of vegetation and *Euconulus fulvus*, although widespread, is absent from the open, muddy flushes. Now take a sieve in order to examine the molluscs of the deep mossy carpet of *Dryas* and dwarf willows in more detail. Sievings of the bulk material will yield all six species but, if you work more carefully, you will find that they are zoned from top to bottom, driest to wettest as I have described. The small streams which develop these flushes trickle towards lake Torneträsk and on their way form a series of calcareous pools and bogs. These are too wet for *Dryas* and, as you would expect from your discoveries made earlier, *V. alpestris* is absent and *V. modesta* is not common either. *V. genesii*, *C. columella* and *E. fulvus* dominate the molluscan assemblage with the addition of *Vertigo lilljeborgi*, *Catinella arenaria* and *Cochlicopa lubrica*.

So take your leisure in this walk over the Lapland hills and you will discover much to delight you. A clump of deep yellow mountain pansy under the willows, alpine butterwort at the edge of a muddy pool, Arctic rhododendron on a dry, shaley slope. Don't hurry! You have the whole day before you, the long, long day of the Arctic summer.

Notes

1. Most of the flowers mentioned here occur as rare members of the British flora and are dealt with the standard words, e.g. W. Keble Martin, *The Concise British Flora in Colour* (G. Rainbird, London, 1965 and later editions). The molluscs are described in M.P. Kerney and R.A.D. Cameron, *The Land Molluscs of Britain and North West Europe* (Collins, London, 1979). The molluscan habitats of the Abisko and Björkliden areas are described in great detail by A. Nilsson, *Fauna Norrlandica*, Vol. 5, 1987 (in English).

2. *Vertigo modesta arctica* has recently been found living in Scotland. (See R.W. Marriott and D.K. Marriott, 'Vertigo modesta, a snail new to the British Isles', *J. Conch. Lond.* (1988) 33, 51-52.) The Scottish site, although of minute area, is otherwise strikingly similar in aspect to these Lappish mountain slopes. It is centred on a limestone outcrop adjacent to a small long-lived snowfield, Arctic willows, *Dryas*, sedges and mosses dominate the flora but the area, although wet, is not flushed with groundwater. The molluscan fauna of *V. modesta*, *E. fulvus*, *V. pellucida* and *Arianta arbustorum* has much in common with that of Njuolja.

Field Trip to Porlock Weir, West Somerset 27-29 September 1991

Phil Palmer

[redacted], Sutton, Surrey [redacted]

My friends often tell me that I start many of my articles with 'My friends often tell me -'. I think they must be right. Well, then -

Surprisingly, it is two years since we last went to Porlock in north-west Somerset. Even more surprising, despite the atrocious weather, this year's trip was voted better than the previous. This could easily become a very pleasant habit, like the annual Weymouth dredge and shore recording trips.

We gathered together on the evening of Friday, the 27th, from as far away as Essex and the Lake District; ate a sumptuous meal and put away a lot of wine, the latter blunting the edge of the gloomy weather forecast. From the start of Saturday it rained relentlessly all the way to the first venue at Hunters Inn, where Barry Colville led the main party into a dripping wood in search of pulmonate snails. The remaining four trod a two-mile stony path, beside a brown flood of rushing water, to a narrow bouldery beach between two massive sandstone cliffs - Heddon's Mouth Beach. The stream cunningly disappeared into the bouldery beach and emerged on the seaward side, turning the sea brown for fifty yards. We found the usual things and also *Helcion pellucida* in the holdfast of laminarians. (Lists are appended at the end of this article).

Perched on a ledge between the stream and the cliff was a lime kiln, of which a notice told us that ships once landed there with coal and limestone from South Wales. The limestone was burned in the kiln to produce lime for spreading on the sandy acidic fields above. A sailing barge was pictured next to the text, and we marvelled at the labour of unloading coal and limestone in that wild place.

Returning, we found Barry's party crowded comically beneath a bright plastic awning of a shop window, while the sky unloaded

itself in swirling gusts of windy rain. There was an impromptu fashion show of waterproof clothing and a photograph – 'lest we forget'. A hideous tourist shop sold all manner of 'tat' except choc-ices – a long-standing obsession of mine.

The afternoon venue was at Woody Bay, some two miles to the east of Heddons Mouth, where towering cliffs backed a classic rocky shore composed of Devonian Lynton slate dipping 30° inland so that marine erosion had left a scatter of triangular ramps rising towards the sea. The presence of *Porphyra* indicated an exposed shore, while a piece of lateral thinking caused John Llewellyn-Jones to gather it and make, that evening, an amazing pink, strawberry-flavoured blancmange. It was a good shore, providing us with rich pickings, the richest of which was *Otina ovata*, found by Jan Light in a cave at the foot of the cliff; and *Paludinella littorina* found by John Llewellyn-Jones in a crack some 15 feet up the cliff. Jan used experience gained in the Isle of Wight to search in the right habitat. It seems that *Otina* likes caves and damp weather in both Devon and the Isle of Wight. *Paludinella* came as a surprise since we have come to associate it with the infaunal habitat in the shingle of Chesil Beach. But Barry Colville reminded us that Jeffries has recorded it from the coast of North Devon.

Eventually a dark grey squall, like the end of the world, loomed over the cliff and drove us up the long zigzag path, and we stopped occasionally to look at the rich flora and ferns thriving in the acidic sandy soil. On the return journey, the promise of real Devonshire ice cream in Lynmouth was dashed – the shop was closed. But there were compensations: that evening Pat Hill-Cottingham, having just published a booklet, *Somerset Ferns*, gave us an impromptu seminar on fern morphology and identification. More excellent food and wine was followed by wide-ranging and interesting discussions.

Sunday started with a walk in Worthy Combe on the north-facing slope of Hangman Grit above Porlock Weir, where we searched for land snails and looked with fresh interest at the ferns. The afternoon marine site was local, just east of the

boulder spit east of the weir. There we found *Didora graeca* alive between tide marks, as well as *Ovatella myosotis*, and curiously elongated *Nucella lapillus*.

It was a first class weekend, orchestrated and conducted with quiet and comfortable efficiency by Jan Light and Ian Killeen. Saturday's weather was awful but mild, yet no-one complained, except me. But I eventually found a choc-ice in a sweet shop at Porlock Weir, where I was lectured by a cadiform lady for succumbing to the advertising alliteration in 'Chunky Choc-Ice'. She was right, but I was a willing victim to commercial literary seduction, and so also was John Llewellyn-Jones. The faunal lists below were provided by Jan Light, Ian Killeen, John Llewellyn-Jones, and myself (marine); and Barry Colville (non-marine).

Saturday, 28 September

(Marine) Heddon's Mouth Beach at SS 655496

Patella vulgata, *Helcion pellucida*, *Littorina littorea*, *L. saxatilis*, *L. neritoides*.

(Non-marine) Lee Bay at SS 693492

Candidula intersecta, *Lymnaea truncatula*, *Ancylus fluviatilis*.

(Marine) Woody Bay at SS 676-8/490-1.

Lepidochitona cinerea, *Acantochitona crinitus*, *Patella vulgata*, *P. depressa*, *P. aspera*, *Helcion pellucida*, *Gibbula umbilicalis*, *G. cineraria*, *Tricolia pullus*, *Monodonta lineata*, *Littorina littorea*, *L. saxatilis*, *L. mariae*, *L. neritoides*, *Lacuna parva*, *L. pallidula*, *Rissoa parva* and var. *interrupta*, *Onuba aculius*, *Cingulopsis fulgida*, *Skeneopsis planorbis*, *Hydrobia ulvae*, *Nucella lapillus*, *Ocenebra erinacea*, *Odostomia turrita*, *Mytilus edulis*, *Musculus discors*, *Heteranomia squamula*, *Lasea rubra*; *Hinea reticulata* and *Venerupis pullastra*. All alive except the last two.

(Non-marine) Woody Bay at SS 680486.

Carychium minimum, *C. tridentatum*, *Acanthinula aculeata*, *Punctum pygmaeum*, *Discus rotundatus*, *Arion ater*, *A. rufus*, *A. subfuscus*, *A. circumscriptus*, *A. hortensis*, *A. intermedius*, *Vitrina pellucida*, *Vitrea crystallina*, *Nesovitrea hammonis*, *Aegopinella pura*, *Oxychilus cellarius*, *O. alliarius*, *Limax maximus*, *Lehmannia marginata*, *Deroceras reticulatum*, *Euconulus fulvus*, *Clausilia bidentata*, *Zenobiella subrufescens*, *Arianta arbustorum*, *Cepaea nemoralis*, *Helix aspersa*.

Sunday, 29 September

(Non-marine) Worthy Combe near Porlock Weir, at SS 862477.

Cochlicopa lubrica, *Lauria cylindracea*, *Acanthinula aculeata*, *Discus rotundatus*, *Arion rufus*, *A. flagellus*, *A. subfuscus*, *A. circumscriptus*, *A. hortensis*, *A. distinctus*, *A. intermedius*, *Vitrina pellucida*, *Vitrea crystallina*, *Aegopinella pura*, *A. nitidula*, *Oxychilus alliarius*, *Milax sowerbyi*, *Lehmannia marginata*, *Deroceras laeve*, *D. reticulatum*, *Euconulus fulvus*, *Cochlodina laminata*, *Clausilia bidentata*, *Zenobiella subrufescens*, *Helicigona lapicida*, *Cepaea nemoralis*, *C. hortensis*, *Helix aspersa*, *Potamopyrgus jenkinsi*.

(Marine) East of Porlock Weir at SS 869478.

Lepidochitona cineraria, *Acanthochitona crinitus*, *Diodora graeca*, *Emarginula reticulata*, *Patella vulgata*, *Gibbula umbilicalis*, *G. cineraria*, *Monodonta lineata*, *Littorina littorea*, *L. saxatilis*, *L. obtusata* agg., *Hydrobia ulvae*, *Nucella lapillus*, *Ovatella myosotis*, *Lasea rubra*. Shell only: *Acmea virginea*, *Tricolia pullus*, *Hinia incrassata*, *Ocenebra erinacea*, *Buccinum undatum*, *Nucula nucleus*, *Chlamys varia*, *Aequipecten opercularis*, *Heteranomia squamula*, *Scrobicularia plana*, *Sepia officinalis* – phragmacone only.

Letters

Dear Sir,

With the retirement of Mr Peter Negus as editor of the Conchological Society's Newsletter, yet another era has come to a close in the history of the Society. The very high standard set by Mr Negus has been appreciated by the membership, and admired by outside bodies.

Those members of the Conchological Society who are unable to attend meetings in London, due to illness, distance, cost or other factors, have long valued the service provided by Mr Negus and the Newsletter.

I would like to express the warmest appreciation to Mr Negus for all he has done for the Society, and wish him well on his retirement. I feel I can speak on behalf of all those members, like ourselves, who looked forward to the Newsletter, our main contact with the activities of the Society.

Best wishes, Mr Negus, on your retirement.

A. Norris

*on behalf of the Yorkshire Conchological Society
and all conchologists north of Watford*



Dear Sir,

In the December 1990 *Conchologists' Newsletter*, No. 115, I wrote an article entitled 'The Tiger Cowry, *Cypraea tigris* L. 1758, its uses by man – past and present'. In the article I referred to a bamboo and tiger cowry shell spoon illustrated on page 324, illustration number 4, which had HAPPY BAY printed on the handle. I asked if anyone knew of Happy Bay and within a month Peter Negus had received a letter from Brisbane, Australia. Ms Thora Whitehead who lives in Australia had not only received the newsletter but replied by return. What she said was very interesting and so I quote some of it here:

'Happy Bay, Queensland is situated on Long Island in the Whitsunday Passage, Central Queensland. It is one of the many

holiday resorts scattered among the Whitsunday islands. All of these resorts have shops with souvenirs, shells and shell artifacts being very popular. It seems quite possible that the bamboo and shell spoon mentioned in the article could have come from Happy Bay, Queensland, though its probable origin would have been the Philippines. *Cypraea tigris* is not at all common in Queensland waters.'

I would like to add that it shows that not only is the Conchological Society Newsletter read by members but also by members in as far flung places as Australia and that they do answer queries posed by authors in it. Since then I have been in touch with Thora and a very interesting, useful and pleasant correspondence has followed, which I personally hope will continue in the years to come.

J.E. Llewellyn-Jones

[Redacted], Thundersley, Essex [Redacted]

Introducing the Conchological Society Code of Conduct for Fieldwork

Virtually all natural history societies now issue a code or set of guidelines for fieldwork. These are intended to focus attention on the need, when undertaking fieldwork, to act with consideration and sensitivity for species, their habitats and other users of the countryside.

Council believe that it is now appropriate to issue a society code for the guidance of members. Most of the clauses are likely to have been observed by Society members already as a matter of common sense!

The code was produced following wide-ranging discussions and studies of many other similar codes relating to such diverse interests as birds, insects and geological exposures.

Particular thanks are due to Mr I.J. Killeen, Mrs J. Light, Dr R.B.G. Williams and Mr F.R. Woodward who made many useful suggestions.

M.J. Willing

Conservation Officer

Field Meetings 1992

Hon. Programme Secretary:

Ian Killeen

██████████
Felixstowe, Suffolk, ██████████

Tel. ██████████

Sunday, 1 November

DORKING, SURREY

*Note: this is one day later than that
advertised in the Programme Card.*

Full details in the next Newsletter.

Saturday & Sunday, 20–21 June, WEYMOUTH, DORSET

Leader: Ian Killeen, Tel. ██████████

The annual dredging trip will take place on the Sunday. It is likely that we will be taking samples eastwards along the coast towards Swanage (this may require a slightly earlier start than usual). The party is limited to 12 and members should book with the leader, enclosing a £5 deposit made payable to I.J. Killeen. There are still a few places available and anyone interested should contact the leader as soon as possible.

The programme for the Saturday is yet to be finalised but will probably consist of non-marine work in the Portland area. Meet at Weymouth railway station at 11:00.

Thursday to Sunday, 4–7 July, PEMBROKESHIRE

Leader: Shelagh Smith, Tel. ██████████

The complete itinerary for this meeting is still to be finalised but it will combine recording non-marine molluscs during the mornings (including searching for *Ponentina subvirescens* and *Theba pisana*) and working a variety of shores at low tide in the afternoons. On Thursday we have obtained permission to record the non-marine and marine Mollusca of Skomer Island and we are also looking into the possibility of going to Caldey Island. The rich shore at Angle Bay will also be examined.

The meeting will be based at Tenby where there is a large selection of accommodation available. Despite some effort it has not been possible to arrange a party booking. It is therefore up to participants to make their own accommodation arrangements. Details from the Tenby Tourist Information Office (Tel. 0834 842402). All participants will receive details of the itinerary.

Saturday, 25 July, PEWSEY, WILTSHIRE

Leaders: Mike Weideli, Tel. [REDACTED]
and Dorothy Cooper, Tel. [REDACTED]

The aim of this meeting is to record the molluscs found within the narrow upper stretch of the Hampshire Avon. We intend to look at two sites: the Scotchel NR and Jones's Mill NR. The latter site comprises old water meadows with a diversity of habitats; *Vertigo substriata* has recently been discovered here. If possible we shall also visit Hat Gate, a grassy area with a disused railway embankment.

Scotchel NR is owned by Pewsey County Council. Jones's Mill and Hat Gate are reserves managed by the Wiltshire Trust for Nature Conservation. The Wiltshire Trust is anxious to have records of the molluscs on their reserves – in particular Jones's Mill, which has been only partially studied.

Meet at Pewsey Station (Grid. Ref. SU160604) at 11:00. There should be a train from Paddington via Reading on Saturday morning and one returning in the evening. Ring Dorothy Cooper to confirm times.

Friday–Wednesday, 25–30 September, SCARBOROUGH

Leaders: Barry Colville, Tel. [REDACTED]
and Ian Killeen [REDACTED]

The full itinerary is not yet decided but the main purpose of this meeting is to take advantage of a series of good spring tides. We hope to record a number of shores between Whitby and Filey, an area that is relatively unrecorded. The tidal times range from 09:20 on Friday to 12:45 on Wednesday (Sunday is the lowest). There will therefore be ample opportunity to visit many of the well-known non-marine and geological sites in the area. These include the wooded limestone valleys such as Forge Valley where species such as *Zenobiella subrufescens* and *Leiostryla anglica* are frequent.

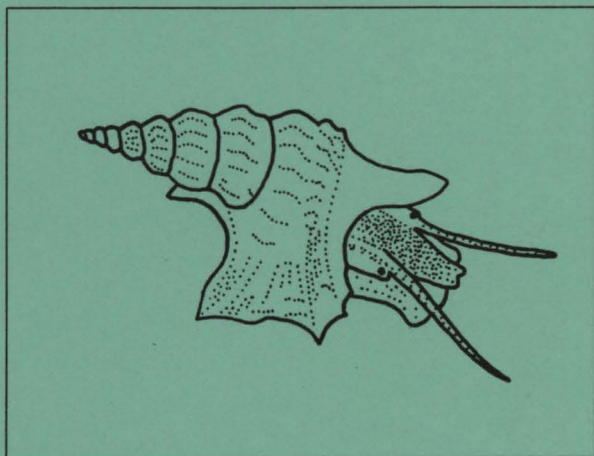
Scarborough is likely to be the most suitable base to work from as this offers the greatest choice of accommodation. We will endeavour to obtain a party booking although this might prove difficult. Would all Members hoping to attend all or part of this meeting let one of the leaders know by the end of June.

The Conchologists' Newsletter

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No. 122

September 1992



Conchological Society of Great Britain & Ireland
(Founded 1876)

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Conchological Books: A bookseller's perspective

Part Two

*Tony Swann, Wheldon & Wesley Ltd
Lytton Lodge, Hitchin, Herts. SG4 8TE*

To some people antiquarian bookselling might sound a faintly dull occupation. However, I began to compile this article while in New Zealand on a buying trip to the Far East. I had gone to Japan for ten days to attend a Booksellers' Congress, where I not only had the delight of viewing the gardens and temple of Kyoto but also managed to line up an order for a set of Curtis' *Botanical Magazine*. From Japan I went on to Australia where in Sydney I met a descendant of one of the editors of the *Journal de Conchyliologie* and bought a complete set of the *Journal* as well as many other fine shell books such as Born, Buonanni, Lister and Rumph. In fact I managed to keep twenty two business appointments over six weeks in Japan, Australia and New Zealand with substantial purchases resulting. Two years ago I spent ten intensive but pleasurable days in America appraising and valuing the largest collection of shell books in the world in private hands. You can imagine from this that bookselling is anything but dull – it's a lovely job and in the course of my work I have at least looked at nearly all the great and small shell books one is likely to see on the market.

Perhaps it would be appropriate now to mention some of the major books which are likely to appear on the market and comment on prices and availability, as well as relative importance from a bookseller's point of view. (I am making the assumption that most of you are bibliophiles and would like to possess a significant library one day.)

We start, naturally, with Aristotle who left us a remarkable history of cephalopods and by his own researches was able to characterise several groups of Testacea. Obviously he has gone through innumerable editions over the last 500 years and is still in print.

Moving to Rome we have Pliny's great encyclopaedia which Johnston says, in his *Introduction to Conchology*, 1850, largely anticipated the taste and credulity of his age, and that to conchology as a science he has added nothing which Aristotle did not supply, although he furnishes some anecdotes for a chapter on its economic applications. We have in stock a copy of the English translation by P. Holland, two volumes folio 1601. There is also a very popular edition in six volumes by the publisher Bohn 1855-57.

By the 16th century, barely 100 years after the invention of printing in Europe, we see massive volumes published by Belon, Rondelet, Gesner and Aldrovandus between 1551 and 1599. Most of these enormous and sometimes credulous compilations contain sections on conchology and their scientific importance is in no small part due to the illustrations of many of the species mentioned.

Johnston devotes some space to Fabius Columna, mentioning his two works dated 1616, *De Aquatilibus* and *De Purpurea*, the latter containing good woodcuts and his genuinely scientific researches into Tyrian purple. We had this book in 1989 at £225, and we do still handle many other 16th and 17th century books.

A great stimulus to the production of fine shell books was the rise of museums linked to commercial interest in beautiful shells, the museum being said to have originated with Aldrovandus. It is from this institution of museums that we date the origin of Conchology as a separate branch of natural history. Their catalogues are of some historical significance (that of the Duchess of Portland of 1786 comes to mind) and the love of making collections of shells lead directly to Buonnani and Lister, whose works are the first exclusively devoted to shells.

Buonnani was a Jesuit whose book, *Recreatio Mentis et Oculi*, 1681, demonstrates talents which, though respectable, do not raise him above the level of his age. One should not denigrate him too much as many of his illustrations were referred to by Linnaeus. We had a good copy of this work for £1,000 last year, a reasonable price in view of the fact that the bibliographer Cobres noted it as 'ein seltenes Buch' in 1782.

According to Johnston, on the other hand, Lister was 'a true naturalist, and the first conchologist of decided eminence.' We had the 1770 edition of his *Historiae sive synopsis methodicae conchyliorum* at £1,500 in catalogue 193. Turton described it as 'an admirable volume, the labour of many years', with the 1,084 engravings all drawn from original specimens by his daughter Susanna and his wife Anna. Certainly this work is a great landmark in the advance of conchology. The original edition produced between 1685 and 1692 is now very rare.

By the time of publication of Rumpf's *Amboinsche Rariteitkamer* in Amsterdam in 1705, a remarkable flood of shells was entering the museums, or what one might more properly call the private cabinets, of Europe, particularly in Holland. While you have heard of tulipomania, there was at this time, particularly in Holland but also in England and France, something of a speculative bubble in shells as well, and extraordinary sums were paid for rare specimens. Happily that encouraged the production of fine books on the subject. A particularly good example of luxury shell book production is Born's *Testacea Musei Caesarei Vindobonensis*, 1780, which Maria Theresa instructed Born to produce on the imperial collection of shells. It is a folio with 18 fine coloured plates and we sold a copy last year for £1,750. How things have changed since, as I mentioned in Part One of this article (*Conchologists' Newsletter No. 121, June 1992*), we sold the finest possible copy for £15 in 1947.

I must not omit to mention Adanson's book published in Paris in 1757, *Histoire naturelle du Senegal: Coquillages*. Tryon, writing in 1880 in his *Manual of Conchology*, went so far as to say, 'Adanson must be regarded as the founder of Malacology.' It is a handsome quarto volume with 19 engraved plates and we sold one for £475 two years ago.

Moving on, Johnston mentions Knorr, Martini & Chemnitz, Pennant, da Costa and Martyn and rather scathingly comments on many books as merely the labours of iconographers and collectors, of little significance to his history. Some of them, however, are of great interest to the bookseller and book collector and are very beautiful.

I have to say that the great pleasure I derive from handling books is an aesthetic one and also even a physical one. The feel of a fine old binding which houses paper of the highest quality, beautifully typeset, with fine woodcuts, engravings or hand-coloured lithographs, gives me a real thrill and a sense of privilege in that most people have to be relatively wealthy to enjoy such pleasure. This is something that adds immeasurably to the quality of my life as I live very modestly, but every day I can walk into our showroom and enjoy contact with objects of real beauty. I am sure Johnston would have scorned my lack of a scientific background, but my simple enthusiasm for fine illustrated books is useful in that it is the illustrations which tend most of all to make the book valuable and saleable these days. Regrettably I do not have the time to go into detail on the various techniques of book illustration over the centuries. I suggest you consult Dance & Heppell's *Classic Natural History Prints: Shells*. The finest old shell book we have in stock at present is Perry's *Conchology* of 1811. It is however a book that has been subject to violent criticism. The illustrations are so inaccurate that Sowerby suggested Perry had only seen them in his dreams. The text has been equally criticised for the new names introduced, such as *Cypraea camelopardalis* of which Reeve wrote: 'I consider the "Cameleopard" of Perry should no more enter the nomenclature of zoology than the "Red Lion of Brentford".' However, Perry's name is now accepted in place of the *Cypraea melanostoma* of Sowerby which Reeve preferred.

Perhaps the most beautiful of all illustrations of shells are in the *Choix des Coquillages* of Regenfuss, 1758, with its 12 large folio coloured plates. This is a book which I have not yet had the opportunity to buy. In 1935 my uncle Charles, who was then in charge of the business, had a probably unique copy with an additional 12 coloured plates prepared for a second volume. He sold it for £10 to the late Sacheverell Sitwell who, as my uncle remarked rather bitterly, took nearly a year to pay for it. In 1956 it was sold at Sotheby's for £160; today it would fetch several thousand pounds.

Writing of fine collector's items brings to mind Martyn's

Universal Conchologist of 1784–90. The first two volumes are the most significant because they figure shells from Cook's voyages. They do still come on the market and I have heard of these two volumes changing hands for £6,000 recently. The stipple-engraved hand-coloured plates are the most beautiful representations of shells that I have personally seen. I cannot resist quoting Henry Chaney of the Santa Barbara Natural History Museum on his experience with the copy of Martyn we sold to Irene McCulloch in 1947 which had an extra volume of proofs and drawings with it. He says 'this copy then disappeared from view for exactly 40 years. I found the "five" volumes, wrapped in a newspaper dated 1948, when I was clearing out her office the week after her death. It was an amazing thrill, similar to finding the coloured Poli in her house buried under an old carpet, covered with a thick layer of dust and sandwiched between the Atlas from the Bonite [voyage] and a superb copy of Knorr's *Deliciae Naturae*. I was so undone at the time I immediately removed them from her house, fearing that the structure would burn down before I could return the next morning'.

You will understand from the way I referred earlier to Poli that his work is one of the great rarities in the field and keenly sought after by collectors. It is *Testacea utriusque Siciliae*, three volumes 1791–1826, the third volume being published posthumously. It was produced by the Neapolitan physician Poli in an expensive manner and consequently had a very limited circulation. I would not like to commit myself to stating the very large sum of money you might now have to pay for one of the very rare coloured copies.

Thinking of large sums of money I will jump right into the 19th Century with Reeve's *Conchologia Iconica* 1843–78. This is surely the most important illustrated work on shells with 2,727 hand-coloured plates of over 20,000 figures. Recently we were asked to value a copy which a customer wished to donate to an institution. We put £20,000 on it and both parties agreed this was fair. A copy fetched £16,900 at auction in England in 1988 and the London bookseller who bought it (now no longer dealing in natural history) catalogued it at £44,000. Of course he could not sell it at

that price and it has passed to a continental dealer.

It is always most inadvisable to assume ignorance on the part of your customer. Very frequently my clients know at least as much about the books in their narrow field of specialisation as I do and I am always ready to admit when I need to check with our reference system for a price or bibliographical detail. It is far better to do that than to take a risk on a price and possibly appear dishonest. In many cases, even when I have a very fair idea of prices, I will check before offering.

I could have prepared another paper on the works of Donovan, Sowerby, Turton, Brown, Wood and Hanley, let alone Gualtieri, Knorr, Kiener, Tryon, or Martini & Chemnitz. Perhaps some other time. As I am near the end I will conclude with a few general comments on the state of the market and on our business in particular.

What I have tried to demonstrate is that, while the supply of shell books is extremely limited and our stock at this moment is frankly pathetic (mainly because they sell so fast!), we are even these days sometimes able to offer a selection of the great books in the field at reasonable prices. When I first joined the business we would go regularly to the London auctions and come back with van-loads of good books. Now, instead of an enormous room full of all sorts of books, when you go to a London auction it is usually the same limited number of quartos and folios which come up time and again with very few shell books among them. We hardly go to auctions now and rely mostly on the families of old private clients selling back to us, disposals of duplicates from institutions, and to some extent on general booksellers. As you can image, anything special tends to sell very rapidly, often before the catalogue is published. I would urge you, if there is anything you are particularly looking out for, to write to me in anticipation of our buying a collection in your field. Please note you are always most welcome at Lytton Lodge even though we have little in the way of shell books at present.

To end on a positive note: I do know where there is a major conchological library and we have a chance of buying it, although the owner is in no hurry to sell. That is the joy of this business.

]You never know when a letter is going to arrive, possibly taking you thousands of miles across the world and leading perhaps to the purchase of a major collection which will delight our customers from here to Tokyo.



Giant Snails in Suffolk

Philip Cambridge, [REDACTED], Norwich [REDACTED]

It was quite a surprise to see in the heart of Suffolk countryside a giant snail, about two feet long, body glistening with slime, tentacles extended, and another, almost as big, in the act of moving down under the rim of a large clay pot on its side, its body curving round under the rim, exploring for the next move. Another lies on its back, body curling round reaching for a grip to pull itself upright. Quite definitely they were *Helix aspersa* and near them a huge *Cepaea*. Were it not for their size they would have attracted no notice, just snails going about their business.

Despite their lifelike attitudes, they were not live snails, alas, but the work of Sali and Derek of Decorabelia, who make these wonderful replicas in two kinds of plastic, strengthened within by aluminium rods. Though neither are naturalists they have the artists' eye and the models are about the best I have ever seen. Not cheap, between £25 and £200, but a perfect ornament for the greenhouse, a present for a special friend, or even a specimen for a museum to go with a collection of snail shells. If you are in Suffolk I am sure they would be delighted to show you their latest creations: [REDACTED], near Beccles, [REDACTED], Tel. [REDACTED]

The Tiger Cowry, *Cypraea tigris* L. 1758:

Cowry Cameos

with a brief history of each

Part Two

J.E. Llewellyn-Jones

Thundersley, Essex,

You might well ask what it is that I personally find so interesting, even exciting, about collecting cameo cowries. Partly, like any collecting, it is the 'thrill of the hunt', seeing a cowry half-hidden behind an antique box or picture in a second-hand shop and wondering whether it will reveal a new scene, start a new investigation, produce a new story; or simply enjoying its beauty created by a craftsman unknown, to be handed down from one generation to another. These are the driving forces behind this interest.

Although I could say a lot about each cowry cameo I'm only going to pick out a few for detailed scrutiny, The first two, the Death of Wellington 1852 (Figure 1), and the Walmer Castle cameo which belongs to Eleanor Fogan (Figure 2), took me along paths of war, invasion, heroism and glory – but I'm not writing about these here. Walmer Castle was one of three castles built by Henry VIII in 1540, after the break with Rome, to protect the Channel coastline from invasion, the others being Deal and Sandown. They were known as 'the three castles that keep the Downs' and provided safe anchorage points between the coast and the Goodwin Sands. Sandown Castle no longer exists having been washed away. In the early nineteenth century. Walmer became the official residence of the Lord Warden of the Cinque Ports, the post the Duke of Wellington held until his death. The room in which he died on 14 September 1852 has been kept largely as he left it. The 'Duke of Wellington Room' next to his bedroom has been turned into a museum of 'Wellingtonia' including a pair of his famous boots. The cowry was given to those attending the funeral as a memento of the occasion and of the great man.



Figure 1. Death of Wellington, 14 September 1852

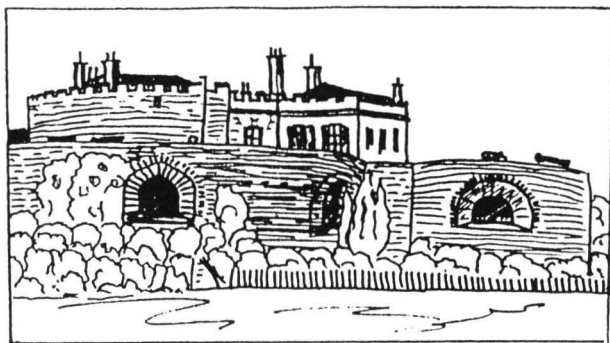


Figure 2. Drawing of Walmer Castle as it is today

The launching and life of the ship *The Great Eastern* was again not only a fascinating but also a rather tragic tale. I bought the commemorative cowry (Figure 3) in the Ely Antiques Centre one cold, wet day and then spent the rest of the weekend finding out about the ship. *The Great Eastern* was proposed in 1851, when Isambard Kingdom Brunel was consultant engineer to the Eastern Steam Navigation Company, to replace a fleet of smaller ships. The idea was that she could sail to either Australia or India

and back without refuelling and carry either 4000 fee-paying passengers or 10,000 troops, as well as the 400 crew members. Her keel was laid in 1851 on the bank of the Thames at Millwall by her builders J. Scott Russell and Co. and she was to be launched sideways into the river on 13 November 1857.

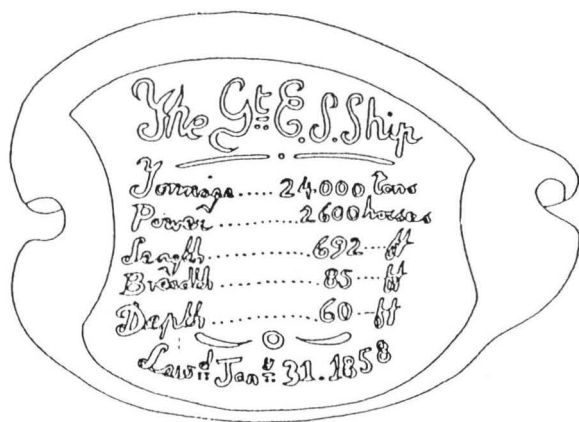


Figure 3. Launching of *The Great Eastern*, 31 January 1858

In addition to the information given on the cowry cameo above, this enormous ship was to carry a cargo of 6000 tons, a coal load of 12,000 tons, had five funnels, six masts able to carry a sail spread of 6500 square yards, a pair of paddle wheels 56 ft in diameter and each weighing 90 tons, and a propeller of 24 ft diameter weighing 36 tons. The ship was divided into 10 watertight compartments and the iron hull was double from keel to waterline, with a gap of 2 ft 9 ins between the plates. On the day of the launch she moved a few feet and then stuck fast. Three months later at a cost of £120,000 she eventually launched herself, slipping gently into the river on 31 January 1858. The date given on the cameo was this second date, so that it was cut and either sold or given away as a souvenir to the passengers sailing on her maiden voyage.

The Great Eastern managed to bankrupt everyone who owned her. She was incredibly unseaworthy, making everyone terribly seasick and was described in America as the 'ugliest thing that had ever sailed the seas.' She finished up laying six transatlantic

cables, after which she was laid up in 1874 and in 1887 she was sold for scrap. It took three years to dismantle her during which time the skeleton of a riveter was found trapped between the two hulls. The cause therefore of the death of six fireman in an engine room explosion, the drowning of the first Commander, Captain Harrison, and the death from a stroke of Brunel from worry, could all now be explained away by those who were superstitious!

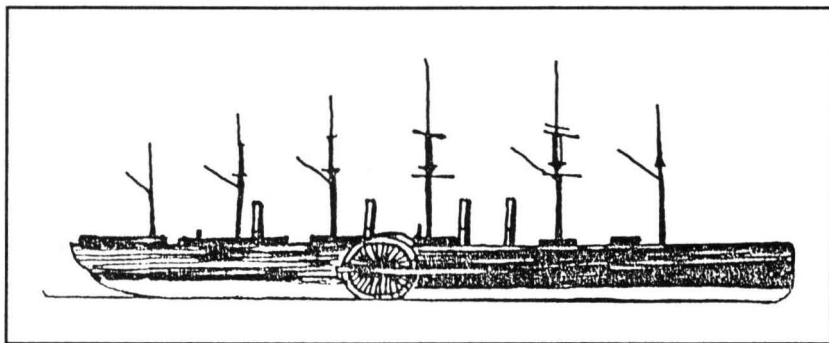


Figure 4. Drawing of *The Great Eastern* as on the day of launching.

The 'Shell World' cowry cameo (Figure 5) was being given away by the Shell Store House at the International Drive, Orlando, Florida, USA when we visited it in August 1988. This shop – or a better description is a retail store, one of a large number in Florida – was the largest I have ever seen and I'm afraid a good example of what I would call the worst sort of trading. It was an enormous hangar-like building with row upon row of trestle tables weighed down with unlabelled boxes of every type of shell from every corner of the world. Many species were rare and some even on the endangered species list. I didn't buy a single specimen but did come away with my free cowry cameo key ring fob and a night light, which I did buy, which is illustrated in an article on Tiger cowries (*The Conchologists' Newsletter* No. 111, December 1990). The results of this sort of dealing must be the complete destruction of shell populations and probably habitats as well, the majority of the shells being used for shellcraft work and of no use to a scientist or serious collector.

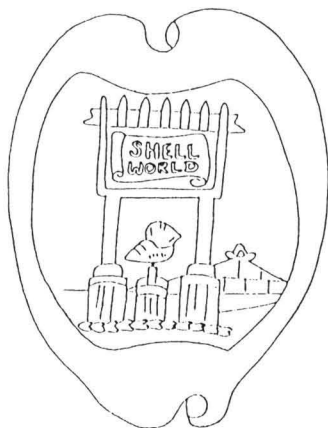


Figure 5. Shell World, August 1988

The cowry shown in Figure 6, 'España-82', was borrowed from Eleanor Fogan and was bought in Spain as a souvenir of the World Cup. The football matches ran for a calendar month, the final being played between Italy and West Germany on 11 July 1982. During the month 52 matches were played, 146 goals scored and 1,766,277 people attended. Italy won on this occasion 3 goals to 1 and received the cup from King Juan Carlos of Spain.



Figure 6. España-82 World Cup.

The next three cowry cameos are from the Gulf and were brought back in 1987 by Caroline and Steve Sherwin. Translated the texts say 'Happy voyage' (Figure 7), 'Be strong' or 'Good health' (Figure 8) and 'Hallo' (Figure 9).

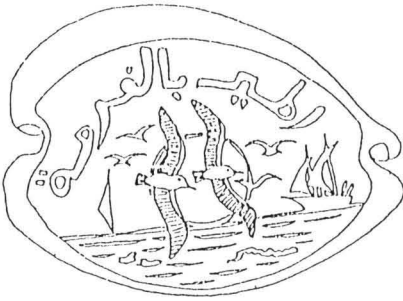


Figure 7. 'Happy voyage'



Figure 8. 'Be strong' or 'Good health'

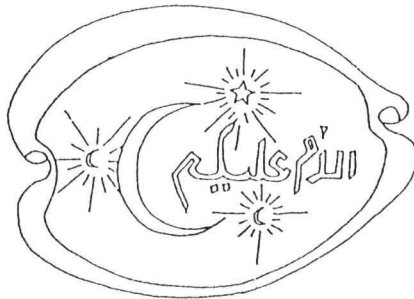


Figure 9. 'Hallo'

The following ten cameos were all cut and sold as seaside souvenirs for visiting tourists. I have also recently (June 1991) bought a cowry cameo from Cornwall from the Shell Shop on Lands End, Cornwall. Of the cameos illustrated, the Scheveningen cameo was also featured in Dr Maria Schilders' booklet entitled *Die Kaurischecke*, published in 1952. The Landes cameo represents the area around Bordeaux which we visited in the summer of 1989. One of the attractions in Bordeaux harbour was a beautiful sailing ship which has become the symbol of Landes and Bordeaux and is illustrated on the cowry.

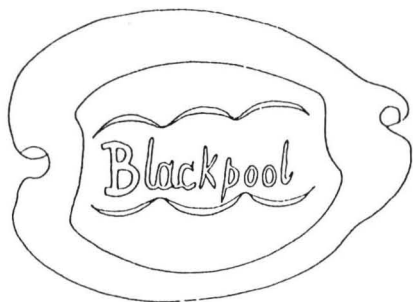


Figure 10. Blackpool 1850s



Figure 11. Scheveningen 1952



Figure 12. Le Havre 1850s

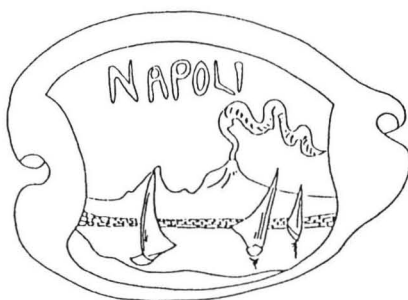


Figure 13. Naples 1850s

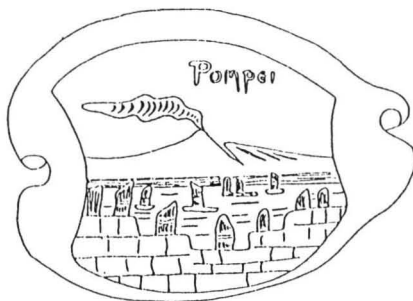


Figure 14. Pompeii 1850s



Figure 15. Sorrento 1850s

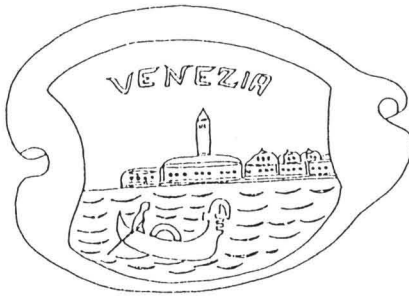


Figure 16. Venice 1850s



Figure 17. Tranche 1985

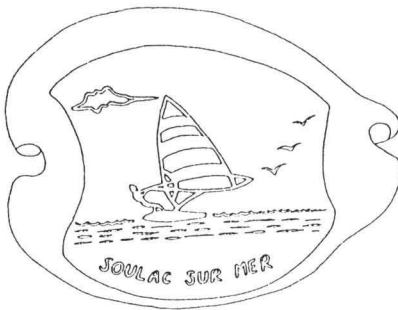


Figure 18. Soulac 1986

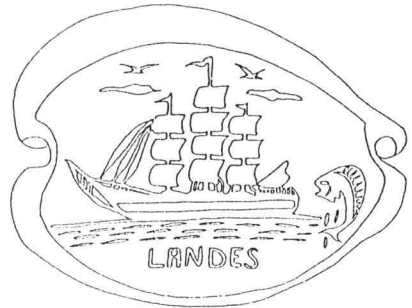


Figure 19. Landes (Bordeaux) 1989

In 1987 I bought the best modern cowry cameo that I have ever seen (Figure 20). It came from Calais and I had to argue with the shop owner for it, in my very poor French. He had it on display in the window but inside for sale to his customers, he had only a number of very poor quality examples. This cameo had been exquisitely carved with window frames, crosses, chimneys and even the numbers on the clockface of the Town Hall being present. To the left of the Town Hall built in 1927 is the famous statue by Auguste Rodin of the six burghers, only four being visible at once, two being behind. The story goes that after the battle of Crécy on 26 August 1346 Calais withstood a siege for almost a year. But in 1347 when the people were starving to death, six burghers gave themselves up to prevent the massacre of the town's population by Edward III. Edward was so impressed that in the end he spared their lives.

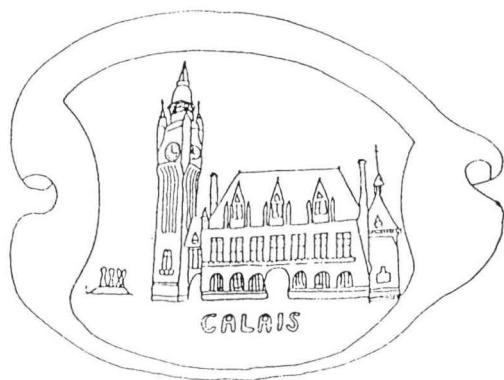


Figure 20. Calais 1987

It is of particular interest to the collector of cowry cameos that had I bought every cowry cameo that I found I would have ended up with over half of them having come from either Naples or Pompeii, both in Italy. At first this might seem a little odd: first of all the cowries do not come from the Mediterranean and secondly Italy does not have a monopoly on seaside resorts! On the other hand, Italy has been for many years, hundreds, in fact, the centre of the Cassis Cameo industry, the majority of craftsmen being centred around the harbour at Naples. One can well imagine the cowries being brought in with the Helmet shells and the craftsmen finding a lively trade in cowry cameos depicting the harbour at Naples and Vesuvius over Pompeii. Both these places have been major tourist and trade centres since Roman times and were great tourist attractions in the Victorian era. Over the decades, maybe centuries, the craftsmen of Naples have spread their wares and cowry cameos to other seaside resorts around Europe. Today many cowry cameos are actually carved at source or in the Phillipines and have never been near Italy and its world-renowned cameo industry.

An interesting but short-lived fashion in the 1930s was to set a cowry cameo on top of another tiger cowry to produce a desk lamp (Figures 21 and 22). They were quite attractive but very impractical, giving out almost no light and getting very hot.

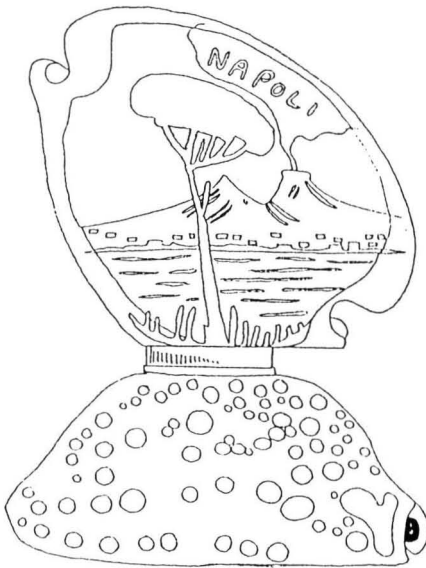


Figure 21. Napoli cowry
lamp 1930s

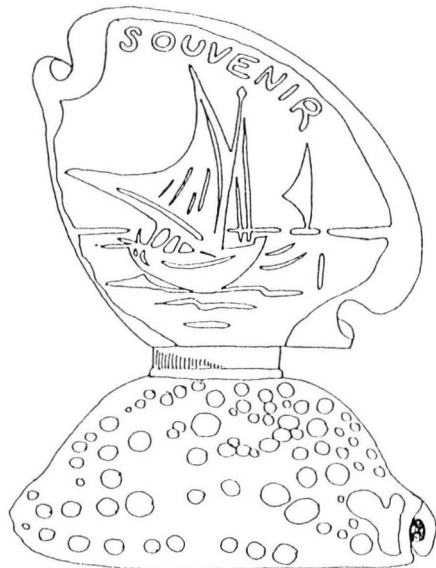


Figure 22. Souvenir cowry
lamp 1930s

The Victorians had a passion for souvenirs and mementos to put either on their mantelpieces or in cabinets especially designed for viewing them. So the makers of these reminders of halcyon holidays or important dates produced examples which could be given for special moments such as when someone had a baby (Figure 23) or to someone starting out in business (Figure 24), or simply to say farewell (Figure 25).



Fig. 23. A Present for Eliza Lee
Born June 19 1864



Fig. 24. Confidence is the
Companion of Success



Figure 25. Goodby

A fairly recent idea for cowry cameo carvers, probably an update of the 'Him' and 'Hers' which were sold in pairs, has been the Star Sign souvenir. They vary in quality from place to place but one has been able to buy them in almost any shell shop in Britain over the last two decades. The one depicting my own Zodiac sign, Leo (July 23 – August 22), bought in 1978 (Figure 26) does in fact make use of at least three layers of the shell, the mane and letters being made up of the outer shell layer, the lion the

purple layer and the background white. It is a very attractive, though simple design and makes quite a fun present in these star-studded times!



Figure 26. Leo, a Zodiac sign

The last cameo that I wish to mention (Figure 27) belongs to Eleanor Fogan. It is a mystery cowry cameo – there is always one! It is an oddly carved shell, but interesting because still glued in place on the back is the price tag – 13/11d. It was probably carved in the 1950s and was sold at a very high price. Although I have looked up Kings and Banks, Canford Cliffs in my own and the local reference library I can find no information as to where it is. Is 78662 a telephone number? If anyone can help I would very much appreciate a letter or note to complete my records.

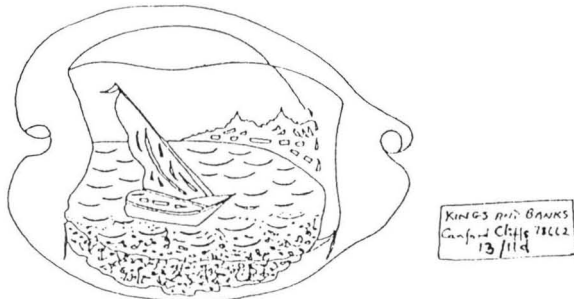


Fig. 27 Kings and Banks 1950s

If anyone has a cowry cameo with a different and interesting motif from any described in this article please let me know, including a sketch, and then we can build up a small library of them for other people to see and enjoy.

Collectors in East Africa

No. 16: W. Doherty (1857–1901)

B. Verdcourt

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

Some extremely interesting minute snails were collected by William Doherty in Kenya and sent to Tring Museum together with larger species. According to the British Museum (Natural History) Mollusca Department accessions book, there were 267 shells in the lot which they purchased from Tring in 1901. Smith accessioned them on 26 December 1901 but had already published a paper on some of the material earlier that year.

For many years I attempted without success to find out something about Doherty. It was not until Carol Gokce (Zoology Department Library) introduced me to Prestwich's *I name this parrot* — that I found out a few facts. Fortunately he had collected 'Doherty's hanging parrot' (*Loriculus philippensis dohertyi* Hartert, 1906) and gained a place in this useful work.

William Doherty was born in the USA at Mt Auburn, Cincinnati on 15 May 1857. Under the title of a note he published in 1878 he is given as of 'University of Cincinnati' — perhaps a graduate student or a young lecturer. He was presumably a member of the Cincinnati Society of Natural History. A Mr Dury read to a meeting some extracts from a letter from 'Mr William Doherty now travelling in Borneo'. No obituary was discovered in the journal of this society.

He travelled extensively through Europe, Asia Minor, Persia and India during 1878 to 1882 but collected little or nothing. Later, however, he began to devote himself to natural history collecting and became an excellent collector of insects and land snails; he met Hartert in the Malay Peninsula in 1888 and they travelled together through Assam and in the Naga Hills. He visited the Rothschild Museum at Tring in 1895 and added birds to his field activities when he conducted his major expedition to the eastern tropics. After a period in America he left for East Africa towards

the end of 1900 and worked mostly near Lake Naivasha and the Mau Escarpment where he collected nearly 3000 bird skins, innumerable Lepidoptera and the molluscs listed below. It is unfortunate he did not write a book about his travels and sadly he died of dysentery in the Railway Hospital, Nairobi on 25 May 1901.

He wrote little himself but I have unearthed in the invaluable but often overlooked (even by librarians) *Royal Society Catalogue of Scientific Papers* two papers on molluscs published in the first volume of our own journal (Doherty, 1878, a, b). In one he comments on the possible use of teeth in the mouth of shells to prevent predation but that their existence in mostly only adult shells would not protect the young.

Quite a few snails have been named after him (collected in Borneo, New Guinea, Burma, Naga Hills etc.) apart from the African ones mentioned below, and I suspect the following list is very incomplete:

Adelomorpha dohertyi Fulton, *Alycaeus dohertyi* Godwin-Austen, *Clausilia dohertyi* Boettger in Aldrich, *Cyclophorus dohertyi* Fulton, *Diplommata dohertyi* Godwin-Austen, *Hypselostoma dohertyi* Fulton, *Macrochlamys dohertyi* E.A. Smith, *Nanina dohertyi* Aldrich (= *Pseudopatulula dohertyi*), *Omphalotropis dohertyi* Aldrich and *Trochomorpha dohertyi* Aldrich. Doubtless many of these are now in other genera or possibly put into synonymy.

Godwin-Austen (1892, 1893) described *Alycaeus subculmen*, *A. granum*, *A. rubinus*, *A. ochraceus* and *A. dohertyi*, also *Diplommata dohertyi*, *D. unicrenata*, *D. subtilis*, *D. delicata*, *D. domuncula* and *D. concinna* from his material. In the first of his papers he gives some further information about the collector:

The arrival of a large collection of land-shells sent me recently by Mr T.H. Aldrich, of Cincinnati, USA and made by Mr W. Doherty in 1889 in different parts of the Naga Hills and Manipur has led me to take up and work out those belonging to the genus *Diplommata*.

Mr Doherty made Kohimah in the Naga Hills his headquarters and was there during the summer months; he also collected in the Eastern Naga

Hills south of Margarita which is the terminus of the railway from Debrughr to the coal-workings and about 50 miles distant. In this neighbourhood he was, being in quite unexplored ground, very successful as regard novelties, while at the same time he extended the range of other species. Mr Doherty collected the minute specimens himself, while his men were looking after Lepidoptera and Coleoptera; some larger shells were brought to him by the Nagas but he could not get them to search for the small forms.

It seems that the American habit of spoiling the market by paying too much started long ago! Godwin-Austen who paid 4 annas for a new species complains, 'Mr Doherty was far too liberal in giving the Nagas two rupees for shells', i.e. eight times as much.

Despite the many Lepidoptera collected in Kenya the epithet '*dohertyi*' is not listed in the index to Bernard D'Abrera's monumental *Butterflies of the Afrotropical Region*, but doubtless there are insects named after him.

List of molluscs described from material collected by William Doherty in Kenya

Smith (1903) states that the specimens 'were collected by the late William Doherty on the Mau Escarpment in the Eastern Province of Uganda at an elevation of 6500–9000 feet. At that time the Kenya-Uganda border was far to the east of its present position, reaching almost to Nairobi. Many of the labels read 'Terminus of the Uganda Railway, September 1900 to April 1901, 6500–9000 feet. In the excellent account of this railway by Hill (1949) the rail-head was stated to be at Mau Summit in early April 1901 and was probably somewhere between Naivasha and Nakuru in September 1900. Certainly by October 2nd 1899 the rails had reached the point of the Kijabe Rift where the rope incline operated from May 3rd 1900 until November 4th 1901.

The types mentioned are all in the British Museum (Natural History):

Ennea columella Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.31–39). *Gulella columella* (Smith).

Ennea commoda Smith, 1903. Kenya, Mau Escarpment (syntypes, 1901.12.21.22–30). *Gulella commoda* (Smith).

Ennea insolita Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.40–54, now only 7 specimens left). *Gulella insolita* (Smith).

Ennea prodigiosa Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.9–19 (two broken)). *Gulella prodigiosa* (Smith). (Thiele treated this species as a section *Mirellia* of *Ptychotrema* and Haas erected a subgenus *Thaumatogulella* for it).

Ennea ugandensis Smith, 1901. Kenya, terminus of the Uganda Railway (syntypes 1901.12.21.1–8; one has been marked with a red spot and was chosen as lectotype by Connolly). *Gulella ugandensis* (Smith).

Ennea unilirata Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.20–21). *Ptychotrema uniliratum* (Smith).

Euonyma pareimena Connolly, 1923. Kenya, Mau Escarpment (holotype and paratypes 1901.12.21.78–83). *Opeas pareimena* (Connolly).

Limicolaria dohertyi Smith, 1901. Kenya, terminus of the Uganda Railway (syntypes 1901.12.21.240–242). (One with a red spot has been marked on the card as holotype but Smith did not designate such types and it is the lectotype chosen by Connolly). *Limicolariopsis dohertyi* (Smith).

Martensia permanens Smith, 1901. Kenya, terminus of the Uganda Railway (syntypes 1901.12.21.243–249). (One has a tiny label attached presumably by Connolly and is a lectotype). *Trochonanina plicatula* (von Martens).

Opeas crenulatum Smith (as *crenulata* but *Opeas* is neuter), 1901. Kenya, terminus of the Uganda Railway (syntypes 1901.12.21.116–125). ('Holotype' separated off in a tube but must be a lectotype chosen by Connolly). *Streptostele crenulata* (Smith).

Opeas lentum Smith (as *lenta*), 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.84–87). *Streptostele lenta* (Smith).

Opeas venustum Smith (as *venusta*), 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.68–77). *Streptostele venusta* (Smith).

Pyramidula (Gonyodiscus) imitata Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.126–129). *Trachycystis abyssinica* (Jickeli).

Pyramidula (Gonyodiscus) lamellifera Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.136–140). *Trachycystis lamellifera* (Smith).

Pyramidula (Gonyodiscus) ugandana Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.132–135). *Punctum ugandanum* (Smith).

Subulina dohertyi Smith, 1903. Kenya, Mau Escarpment (syntypes 1901.12.21.56–67). *Nothapalus dohertyi* (Smith).

Smith also mentions *Buliminus bambuseti* von Martens var. in his 1901 paper; he had sent material to its author for confirmation which I have seen in Berlin. In my revision of the East African species (1967) I give the locality as escarpment near the Kedong Valley, but the label on the BM specimens (1901.12.21.231–239) states 'escarpment at end of Uganda Railway 6500–9000 feet.' Long after the railway had forged ahead to the Mau Summit and beyond (the first train reached Lake Victoria, Kisumu in December 1901) the difficult Kedong Rift section was still being built and was not completed until November 4th 1901. The specimens almost certainly actually came from somewhere in the Mau area.

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Burnham Beeches Revisited

June E. Chatfield

[REDACTED], Alton [REDACTED]

Burnham Beeches, in the Thames Valley some three miles north of Slough, Bucks, lies mostly on acid soil, clays and sands derived from the Reading Beds of Eocene age, yet it is a rich site for molluscs and particularly notable as a locality for *Spermodea lamellata*, a western oceanic species that is rare in the eastern half of the country. The slug *Limax tenellus* typical of old woodlands also occurs there.

Burnham Beeches was visited by the Conchological Society on two occasions in 1962, on 20 May and 9 September, both led by Mr S.P. Dance, and the records made on that occasion were some of the earliest contributions to the then new non-marine mapping scheme. Neither of these meetings were written up in *The Conchologists' Newsletter* but lists of species were recorded in addition to my field notebook entries. Twenty-six years later in November 1988, on a cold frosty day, the author made a return visit to Burnham Beeches in the company of our French member Dr Colette Stevanovitch who was particularly keen to see *Spermodea lamellata* (which we found) and *Zonitoides excavatus* (which we did not find on that occasion).

A fourth visit was made as a field meeting of this Society on 2 November 1991, led by the author and attended by 10 members and friends, Colette Stevanovitch coming over for her first Conchological Society meeting. We were also accompanied by Dr Helen Read, ecologist for the Corporation of London who own Burnham Beeches. She outlined the history of the site, its habitats, geology, changes in vegetation and land use. Copies of the official guide book *Burnham Beeches* by A.D.C. Le Sueur (revised by T.M. Fergusson, 1984) were distributed. This book is normally on sale at the kiosk at Victory Cross in Burnham Beeches and contains a map of the site.

Much of the area of Burnham Beeches was open heathland until enclosures were made to protect trees from grazing animals.

Although it had earlier been a woodland pasture with pollarded trees, with the decline in grazing animals the area of woodland expanded. The name 'Burnham Beeches' did not appear on plans until 1837. In 1879 a large part of the Beeches came up for sale and possible development and it was suggested that the Corporation of London should buy it, a very far-sighted move in those days. The Corporation of London is separately funded and continues to manage Burnham Beeches for its amenity and natural history aspects. The present team includes ecologists who are assembling lists of species for Burnham Beeches and welcome the assistance of all naturalists visiting the site.

Table 1 shows the combined list of 47 species of land and freshwater molluscs: there are differences in the lists for the visits about 30 years apart. In May 1962 the ponds and streams yielded five freshwater species, but whilst Middle and Upper Pond and the connecting valley were searched in November 1991, no freshwater molluscs were found. Dr Read explained that roadworks had caused the diversion of the source from the Swilly Pond which had affected this valley, reducing the mineral enrichment from the swallow hole. The 1962 visit also must have included the area of chalk since that list had *Helicigona lapicida*, a species with a thick shell which does not occur on acid soil.

Several typical woodland and leaf litter slugs and snails were consistently present over the years and the notable rarity *Spermodea lamellata* was quite widespread, being found on dead wood in the valley between Upper and Middle Pond (1991), Seven Ways Plain (1991) and Victoria Drive (1988). *Limax tenellus*, occurring as fine large specimens, was numerous in 1991 and photographed by several members of the party. The 1988 visit added *Arion distinctus* and *A. silvaticus* (not recognised as separate species in 1962), *Vitrina pellucida*, *Milax budapestensis*, *Boettgerilla pallens* (the latter two in a disturbed pit by the roadside at the end of the Beeches), *Limax maximus*, *L. marginatus* and *Deroceras reticulatum*. *Boettgerilla pallens*, a slug in the Milacidae (the worm-like slug) was only established in Britain in the early 1970s, since when it has spread rapidly through the country in waste sites and other places of human

disturbance, such that the distribution map shown in the non-marine atlas (Kerney 1976) is now completely out of date. On the latest visit *Punctum pygmaeum*, *Clausilia bidentata* and *Helix aspersa* were added to the general list. Additional species on subsequent visits reflect the areas of the Beeches investigated, the weather conditions of the season and of the day, and whether leaf litter was taken for sorting.

The fauna of Burnham Beeches reflects the very acid woodland in the presence of the calcifuge snail *Zonitoides excavatus* and a general assemblage of species typical of acid woodland. Conversely there are some species requiring a high level of lime in the soil like *Helicigona lapicida* and *Helix aspersa*, found on the outcrop of chalk or along roadsides. *Milax budapestensis* and *Boettgerilla pallens* are also typical of disturbed roadside areas and rubbish. The valleys with streams provide a damp atmosphere that promotes species like *Acicula fusca* (1962 only) and *Spermodea lamellata*, which is alive and locally abundant. Both of these are more common in the west of Britain.

Overcast weather, the onset of rain, short day-length and falling light levels during the visit of November 1991 limited the time available for collecting. The meeting was most enjoyably concluded by tea at Noel Gregory's art gallery at nearby Farnham Royal where we were able to see his own paintings of the Beeches and others of earlier artists from times when the habitat was more open.

Dr Read would be pleased to have additional records of molluscs and any other groups of plants and animals for this locality and her address is: Corporation of London, [REDACTED]
[REDACTED], Farnham Common, Bucks [REDACTED]

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Table 1

Species	May 1962	Sept 1962	Nov 1988	Nov 1991
Freshwater:				
<i>Lymnaea truncatula</i>	+			
<i>L. peregra</i>	+			
<i>Anisus leucostoma</i>	+			
<i>Hippeutis complanata</i>	+			
<i>Pisidium personatum</i>	+			
Terrestrial:				
<i>Acicula fusca</i>	+			
<i>Carychium minimum</i>	+			
<i>C tridentatum</i>	+	+	+	
<i>Cochlicopa lubrica</i>	+		+	+
<i>C. lubricella</i>	+			
<i>Columella edentula</i>	+	+	+ seg.	
<i>Lauria cylindracea</i>	+			
<i>Acanthinula aculeata</i>	+	+		
<i>Spermodea lamellata</i>	+	+	+	+
<i>Discus rotundatus</i>	+	+	+	+
<i>Punctum pygmaeum</i>				+
<i>Arion ater</i> agg.	+			+
<i>A. subfuscus</i>	+		+	+
<i>A. circumscriptus</i> agg.	+			
<i>A. silvaticus</i>			+	
<i>A. hortensis</i>	+ agg.			+ seg.
<i>A. distinctus</i>			+	
<i>A. intermedius</i>	+	+	+	+
<i>Vitrina pellucida</i>			+	
<i>Vitrea crystallina</i>	+	+	+	+
<i>V. contracta</i>	+	+		
<i>Nesovitrea hammonis</i>	+		+	+
<i>Aegopinella nitidula</i>	+	+	+	+
<i>Oxychilus draparnaudi</i>	+			

Table 1 (continued)

Species	May 1962	Sept 1962	Nov 1988	Nov 1991
<i>O. cellarius</i>	+	+	+	
<i>O. helveticus</i>	+		+	+
<i>O. alliarius</i>	+	+	+	+
<i>Zonitoides excavatus</i>	+	+		+
<i>Milax budapestensis</i>			+	
<i>Boettgerilla pallens</i>			+	
<i>Limax maximus</i>			+	+
<i>L. tenellus</i>		+	+	+
<i>L. marginatus</i>			+	+
<i>Deroceras reticulatum</i>			+	+
<i>Euconulus fulvus</i>	+	+	+	+
<i>Cochlodina laminata</i>	+			
<i>Clausilia bidentata</i>				+
<i>Trichia striolata</i>	+	+	+	
<i>T. hispida</i>	+			
<i>Helicigona lapicida</i>	+			
<i>Cepaea hortensis</i>	+			
<i>Helix aspersa</i>				+
Total numbers of species	35	15	24	21



Seashell article

The summer 1992 issue of the British Naturalists' Association colour magazine *Country-side* included an illustrated article, 'Seashells on the shore' by June Chatfield, which is concerned with the British species. Back issues of the magazine are available from the BNA Hon. Secretary, [REDACTED] Higham Ferrars, Northants [REDACTED] at £1.95 plus 49p postage – total of £2.44. Cheques to British Naturalists' Association.

Resurrecting *The Cowry*

The Cowry magazine was edited by Lt.-Col. R.J. Griffiths and Volume 1 (Nos. 1–8) was published between December 1960 and August 1965. It ended with No. 1 of Volume 2 issued sometime in 1967. It is my hope that the magazine can be revived and published as a quarterly journal dealing with all aspects of the *Cypraeacea*, extant as well as extinct. It is envisaged as a refereed technical periodical whose wide distribution and competent editorial board would warrant publication of original descriptions.

Because of the prevalence of those who study cowries and related families as a vocation, a certain percentage of contributions would be solicited in order to maintain variety and to introduce topics that would benefit students of all levels. The content thus would be a combination of original research and broader, topical review-type articles occasionally supplemented by book reviews. The journal could probably afford to print halftones only in black and white, at least until it became fiscally established, but contributors would be asked to submit colour prints whenever possible to be used for a future full-colour catalogue (submission would constitute permission and proper crediting would be, of course, guaranteed).

If this survey turns out to indicate enough interest, I would be willing to take the risk of calling for papers and producing the first issue. Please copy this page, answer the following questions, or at least question 1, and return it to me with any comments that you deem appropriate. Print your name and address if you wish to receive future announcements.

1. Are you in favour of reviving *The Cowry* and would you be interested in subscribing?

YES NO UNDECIDED

2. How much would you be willing to pay for 4 issues a year totalling:

a) ca. 120 pages in 8½ x 11 inch (21.8 x 28.2 cm) format,
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3. Would you be in favour of a trading/buying-selling section in each issue (no display ads, charges based on number of lines)?

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4. Would you contribute and/or would you consider reviewing manuscripts?

Return to: Dr Jiri Zidek
Chief Editor/Geologist
New Mexico Bureau of Mines & Min. Res.
Campus Station, Socorro, NM 87801, USA

— ♦ —

Request for information concerning *Donacilla cornea* sites

Donacilla cornea is a small (1.5–2 cm in length) bivalve similar to a *Donax* in shape and extremely variable in colour and pattern. It is a shallow burrower into coarse sand along the sea edge in the Mediterranean region. I am investigating the colour polymorphism of this species and have studied samples from sites near to the city of Thessaloniki in north-west Greece. To further these studies I now need to visit other sites for the species and would be grateful for information concerning its whereabouts in regions other than the coast of Eastern Greece. If anyone can help please contact :

Derek Whiteley
The School of Biological and Molecular Sciences
Oxford Polytechnic
Headington, Oxford OX3 0BP
Tel. (0865) 819285

Book Reviews

Martin Lister's English Spiders (1678)

Translated by Malcolm Davies and Basil Harley. Edited by John Parker and Basil Harley. 244 x 172 mm. 234pp incl. 1 colour and 12 monochrome plates. H/B. ISBN 0 946589 27 5. £49.95 net. P/B. ISBN 0 946589 41 0. £24.95 net.

Why is a book on spiders being reviewed in a publication devoted to molluscs? On reading the title this was probably the first question you asked. The answer lies not so much in the subject matter of the book but in its author, Martin Lister. This seventeenth century naturalist has a very strong claim to both the titles 'Father of Arachnology' and 'Father of Conchology'. This publication is the first English translation of Lister's *Tractatus de Araneis*, part one of his first book, *Historiae Animalium Angliae Tres Tractatus*. Parts two and three of his work deal with mollusca but they are not included in this edition. Instead it is the details of Lister himself given in John Parker's excellent introduction, and the picture of him which emerges from his correspondence with fellow naturalists of his day which should commend this book to all students of the history of conchology. It gives a fascinating insight into the motivations of Lister and his contemporaries. The Lister who emerges from these pages is a real person, warts and all, in contrast to the pure-white, men of science the early naturalists are so often depicted as. Reading this book also made me uncomfortably aware of the scale, accuracy and detail of Lister's observations made without the quality optical instruments available to present day naturalists. The detail recorded by Lister is such that many of the taxa he describes are recognisable today as individual species. I found the book easy to read both because of its clear layout and typeface and because of the uncomplicated writing of its authors, past and present. I have no hesitation in recommending this book to anyone with an interest in the history of conchology or any other aspect of natural history in Britain.

PL

Learning through Landscapes

A series of illustrated books for teachers obtainable from Southgate Publishing, Glebe House, Church Street, Crediton, Devon EX17 2AF. Add £1.50 p & p for orders less than £10. There are other titles in the series which are suitable for project work with young people as well as schools.

Slugs, Snails and Earthworms – A Practical Guide to their Study in the School Grounds

by Dr John Feltwell. Learning Through Landscapes Trust 1991, £3.50. ISBN 1 872 865 054 (24pp).

Slugs, snails and earthworms have considerable scope as a practical teaching resource in the school grounds. This book is designed to be used by teachers in the National Curriculum science programme, the stages of which are referred to in the text. The animals are used for direct observation and to develop themes – comparative locomotion, reproduction, predation, parasitism, and structure and function. Also covered is the creation of a school pond and studies of pond snails. A final section explores the relationship between these animals and humans – earthworms in aerating the soil, slugs and snails as pests on crops but also the need to conserve threatened species. References include two classics – Charles Darwin's book on earthworms and Gilbert White's *The Natural History of Selborne* – as well as a list of more modern references to take the topic further and addresses of societies. A central section has colour photographs to illustrate animals mentioned in the text.

JEC

The Land and Freshwater Molluscs of Suffolk: An Atlas and History by Ian J. Killeen

This excellent publication is available in hardback format from the Suffolk Naturalists' Society, c/o The Museum, High Street, Ipswich, Suffolk IP1 3QH. The price is £10 incl. p & p.

Applications published in the Bulletin of Zoological Nomenclature

The following Applications were published in Vol. 49, Parts 1 and 2 of the *Bulletin of Zoological Nomenclature*. Comment or advice on these Applications is invited for publication in the *Bulletin*, and should be sent to the Executive Secretary, ICZN, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, UK.

Published in Vol. 49, Part 1, 26 March 1992:

**Case 2247 *Balea* Gray, 1824 (Mollusca, Gastropoda):
proposed conservation**

Anders Warén

*Naturhistoriska Riksmuseet, Sektionen för Evertebratzoologi,
Box 50007, S-10405 Stockholm, Sweden*

Abstract. The purpose of this application is to conserve the name *Balea* Gray, 1824, currently in use for a genus of pulmonate gastropods of Europe, the Azores and the Canary Islands (family CLAUSILIIDAE Mörch, 1864, subfamily BALEINAE). The name has been placed on the Official List of Generic Names in Zoology (Opinion 335) but is threatened by the senior objective synonym *Strombiformis* Da Costa, 1778, for which suppression is proposed. During the last 70 years the name *Strombiformis* has been occasionally and invalidly used for a prosobranch genus, correctly named *Eulima* Risso, 1826 (family EULIMIDAE Philippi, 1853, which includes more than 4,000 species, world-wide, all parasitic on echinoderms).

Case 2634 *Xeromunda* Monterosato, 1892 (Mollusca, Gastropoda): proposed designation of *Helix candiota* Mousson, 1854 as the type species

F. Giusti & G. Manganelli

*Dipartimento di Biologia Evolutiva, Università di Siena, Via
Mattioli 4, I-53100 Siena, Italy*

Abstract. The purpose of this application is to designate *Helix candiota* Mousson, 1854, an originally included nominal species, as the type species of the terrestrial snail genus *Xeromunda* (HYGROMIIDAE). The name of the present type species, *Helix turbinata* Cristofori & Jan, 1832, is indeterminate but referred to Sicilian material, whereas *Xeromunda* was based on Greek specimens.

Published in Vol. 49, Part 2 (25 June 1992):

Case 2801 *Potamolithus* Pilsbry, 1896 (Mollusca, Gastropoda): proposed confirmation of *P. rushii* Pilsbry, 1896 as the type species

Maria F. Lopez Armengol & Miguel O. Manceñido

Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata, Paseo del Bosque s/n., (1900) La Plata, Argentina

Abstract. The purpose of this application is to conserve the nominal genus *Potamolithus* from Pilsbry (1896, December) with *P. rushii* Pilsbry, 1896 as the type species, in accordance with universal acceptance. The generic name is available from a paper by Pilsbry & Rush (1896, November) which appeared a month earlier, but *P. rushii* was there only a nomen nudum and so not eligible to be the type species. Species of *Potamolithus* (family HYDROBIIDAE, subfamily LITHOGLYPHINAE) typically inhabit freshwater streams in the Neotropical region and are of considerable biogeographical and palaeontological interest.

Case 2526 *Strombiformis albus* Da Costa, 1778 (currently *Melanella (Balcis) alba*; Mollusca, Gastropoda): proposed conservation of the specific name

Anders Warén

Naturhistoriska Riksmuseet, Sektionen för Evertebratzoologi, Box 50007, S-10405 Stockholm, Sweden

Abstract. The purpose of this application is to conserve the specific name of the prosobranch mollusc *Strombiformis albus* Da Costa, 1778 which is threatened by the unused senior subjective synonym *Turbo laevis* Pennant, 1777. The name *albus*, a senior subjective synonym of *Balcis montagui* Leach in Gray, 1847, the nominal type species of *Balcis* Leach in Gray, 1847, is universally in use. The name *Balcis* relates to a group of species which is considered to be subgenerically distinct from *Melanella* Bowdich, 1822 (in the world-wide family EULIMIDAE Philippi, 1853, which includes more than 4000 species, all parasitic on echinoderms).

Opinions published in the Bulletin of Zoological Nomenclature

The following Opinions were published in Vol. 49, Parts 1 and 2 of the *Bulletin of Zoological Nomenclature*:

Published in Vol. 49, Part 1 (26 March 1992):

Opinion 1662

Limax fibratus Martyn, 1784 and *Nerita hebraea* Martyn, 1786 (currently *Placostylus fibratus* and *Natica hebraea*; Mollusca, Gastropoda): specific names conserved; and *Placostylus* Beck, 1837: *L. fibratus* designated as the type species.

Opinion 1663

Fryeria Gray, 1853 and *F. rueppelii* Bergh, 1869 (Mollusca, Gastropoda): conserved.

Opinion 1664

RISSEOIDAE Gray, 1847 (Mollusca, Gastropoda): given precedence over TRUNCATELLIDAE Gray, 1840.

Opinion 1665

Potamilus Rafinesque, 1818 (Mollusca, Bivalvia): not suppressed.

Published in Vol. 49, Part 2 (25 June 1992):

Opinion 1676. *Lepidomenia* Kowalevsky in Brock, 1883 (Mollusca, Solenogastres): *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885 designed as the type species

Opinion 1677. *Haustator* Montfort, 1810 (Mollusca, Gastropoda): conserved

Opinion 1678. *Helicarion* Férussac, 1821 (Mollusca, Gastropoda): conserved, and *Helicarion cuvieri* Férussac, 1821 designated as the type species

Opinion 1679. *Kobeltia* Seibert, 1873 (Mollusca, Gastropoda): *Arion hortensis* Férussac, 1819 confirmed as the type species.

Diary of Meetings

The diary is presented in date order and includes both meetings of The Conchological Society of Great Britain and Ireland and meetings of molluscan interest run by other organisations. Fuller details of our field meetings are given on page 79 in the Newsletter.

1992

10–12 September, Glasgow: International Conference on Molluscan Conservation held at the University of Glasgow. Details from Fred Woodward, Museum & Art Gallery, Kelvingrove, Glasgow G3 8AG.

25–30 September, Scarborough, Yorkshire: Conch. Soc. field meeting led by Barry Colville () and Ian Killeen ().

17 October, London: Conch. Soc. indoor meeting: 'Snail diversity and conservation, some world-wide comparisons' by Dr Robert Cameron. The Natural History Museum at 14.30.

21 October, London: Malacological Society of London. A day meeting on Limpets held at the Natural History Museum. Details from Dr J. Taylor, Mollusca Section, Natural History Museum, Cromwell Road, London SW7 5BD.

1 November, Dorking, Surrey: Conch. Soc. field meeting led by Judith Nelson ().

21 November, London: Conch. Soc. indoor meeting. 'Snails through the ages – an archaeologist's perspective' by Dr Martin Bell. The Natural History Museum at 14.30.

28 November, Godalming, Surrey: Conch. Soc. workshop.

12 December, London: Conch. Soc. indoor meeting, 'Frilly and fragile – the family Coralliophylidae' by Dr Endre Sandor. The Natural History Museum at 14.30.

1993

6–9 January, Cardiff: Populations Genetics Group. Details from Dr Roger Butlin, School of Pure and Applied Biology, University College, Cardiff, CF1 3TL (PO Box 914).

16 January, London: Conch. Soc. indoor meeting, 'Mollusca of the Pitcairn Island group' by Dr Richard Preece. The Natural History Museum at 14.30.

Field Meetings 1992

Hon. Programme Secretary:

Ian Killeen

Felixstowe, Suffolk,

Tel.

Important Notice

May I remind members of the importance of informing the leaders if they are intending to go to the field meetings. There have been instances this year where problems and confusion have arisen, and one meeting was almost cancelled because the leader thought no-one was going!

Friday, 25 to Tuesday, 29 Sept. SCARBOROUGH area

Leaders: Ian Killeen, Tel. [REDACTED] and Barry Colville ([REDACTED])

All members wishing to attend all or part of this meeting should contact one of the leaders immediately (after 6 Sept.) Those attending will then receive full details of the itinerary, meeting places, etc. It is up to members to make their own accommodation arrangements; the Scarborough Tourist Office on (0723) 373333 can help. The meeting will cover all disciplines: marine, non-marine and geology. The proposed programme is as follows:

Friday: North and South Bays, Scarborough. Low tide 10.09.

Rowbrow Wood and Hilda Wood near Hackness.

Saturday: Robin Hood's Bay. Low tide 10.50.

Oak Wood, Fylingthorpe, Ramsdale Beck and Hayburn Wyke

Sunday: Filey. Low tide 11.36. Filey Brigg, three woods in Forge Valley

Monday: Whitby. Low tide 12.00.

Terrestrial sites in Whitby area including Little Beck Wood.

Tuesday: Cayton Bay. Low tide 12.56.

Scarborough Castle and Oliver's Mount, Cayton and Frank Cliffs.

Sunday, 1 November, DORKING area, SURREY

Leader: Judith Nelson ([REDACTED])

An end-of-season look at the land snails of Ranmore Common NR and other sites on the North Downs. Detailed recording on the slope woodlands and grasslands will provide valuable data for site conservation and management.

Meet at Dorking Railway Station at 11.00. There are normally two trains an hour from London Victoria. Members should check the times nearer the date.

Field Meetings 1993

I am starting to think about next year's programme and I have the following pencilled in:

- Oban area – marine and non-marine, c. 5 days probably in Autumn.
- Wicken Fen, Cambridgeshire
- Poole Bay, Dorset – dredging, 1 day only
- Somerset/Avon Levels
- West Sussex – *Vertigo moulinsiana* sites etc.
- ? South Devon – marine and non-marine
- 2 others.

Yes, it may look a bit 'southern' but I have to arrange meetings in areas where I know people will attend; the two Midlands trips this year were very poorly attended. If anyone is dying to have a trip in the Midlands or North, please let me know.

Molluscan Workshop

The annual Molluscan Workshop will take place on **Saturday, 28 November** at the home of Mrs Jan Light in Godalming, Surrey. Following the success of the 1991 Workshop we will again be covering the British marine and non-marine faunas. The following topics will be included:

- An introduction to the identification of *Pisidium* species
- basic marine recording
- analysis of marine algal samples
- identification of razors, cockles and *Spisula*.

The tuition, tea and coffee are free, but we ask for a fee of £5 to cover preparation of handouts, etc. Members should bring their own lunch and microscopes, petri dishes, tools, etc. Please book with Ian Killeen.

Indoor Meetings

- The indoor programme resumes on 17 October with a lecture by Dr Robert Cameron (University of Birmingham) on *Snail diversity and conservation: some worldwide comparisons*. Dr Cameron is well known for his research on land snail ecology, distribution and genetics and is co-author of the Collins field guide with Michael Kerney. A brief synopsis of his talk is:

In temperate regions, subject to the full rigours of ice ages, land snails tend to have rather large geographical ranges, and a large part of a country's snail fauna may be found in a single site. In tropical and sub-tropical regions this is not always the case. There are complicated interactions of species ecology, the past environment and past changes, natural and man-made. This has implications for the understanding of biodiversity and for conservation policies.

■ The speaker for the meeting at the British Museum of Natural History on Saturday, 16 January will be Dr Richard Preece (University Museum of Zoology, Cambridge). He will give an overview of the past and present terrestrial and marine molluscs of the Pitcairn Island group.

■ Next May, the Society is hosting a joint meeting with the Malacological Society of London to celebrate their centenary. This will be a full day meeting, based at the Linnean Society in Piccadilly. We hope to have a range of papers and posters covering all aspects of the study of Mollusca. If you would like to give a presentation or a poster at this meeting, please contact Ian Killeen.



Annual General Meeting 1993

Members are reminded that they can nominate candidates for election to the Council.

Rule No. 12: Candidates for nominations to the Council shall be paid-up members of the Society and shall be nominated by two members. Nominations, other than those made by the Council itself, shall be sent in writing to the Hon. Secretary at least six weeks before the AGM, and shall be accompanied by a signed declaration of the candidate's willingness to serve.

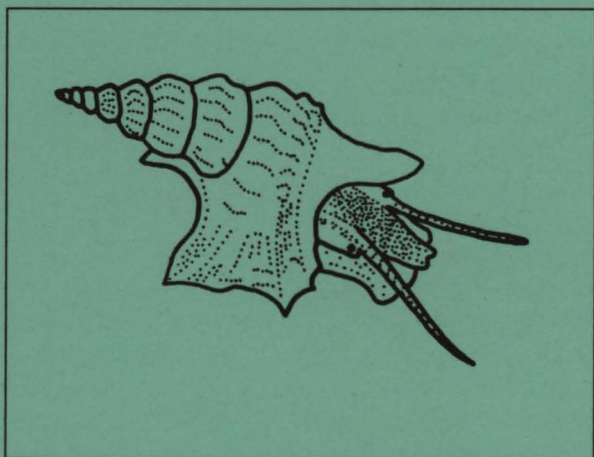
Note: Nominations must be received by the Hon. Secretary (Mrs S. Davies, [REDACTED], Portishead, Bristol [REDACTED]) NOT LATER THAN
31 December 1992.

The Conchologists' Newsletter

Volume 7, Part 1

No. 123

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Conchological Society of Great Britain & Ireland
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Environment and Evolution in Jurassic *Gryphaea*

**Abstract of a talk given to the Conchological Society of
Great Britain and Ireland, Natural History Museum,
15 February 1992**

*Andrew Johnson, Dept. of Earth Sciences, Derbyshire College
of Higher Education, Kedleston Road, Derby DE3 1GB*

The coiled oyster *Gryphaea* inhabited a variety of substrates on the floor of Triassic and Jurassic shelf seas. After a juvenile cemented phase (commonly to other shells) stability was derived solely from the inertia provided by the large, usually thick shell. Evolutionary trends – observed in separate early and mid-Jurassic lineages – from narrow, incurved morphologies to broader, flatter shapes have been plausibly interpreted as refinements of shell form to better suit this reclining mode of life.

The large, saucer-shaped *Gryphaea* familiar to collectors from the Upper Oxford Clay, is the near-latest member of the mid-Jurassic *G. (Bilobissa)* lineage, whose earliest common representative in Europe is the usually ribbed species *G. (B.) pictaviensis* (lower specimen in Fig. 1). Most recent workers have assumed that evolution of the more stable later form from the relatively narrow, incurved *G. (B.) pictaviensis* proceeded through similar forms to the latter occurring commonly in the Lower Oxford Clay and underlying Kellaways Beds (upper specimen in Fig. 1) and at a few other levels between this and the horizon of *G. (B.) pictaviensis*. My work with C.D. Lennon shows this is not the case. *G. (B.) pictaviensis* gave rise to the small, ribbed oyster *Catinula* – now regarded as a subgenus of *Gryphaea* – whose first representatives are remarkably similar to the early growth stages of the former's shell. Somewhat later *G. (Catinula)* populations developed slightly different patterns of ribbing (middle specimen in Fig. 1) but were succeeded by populations including an increasing proportion of unribbed morphs. Size also increased such that the latest *G. (Catinula)* populations – occurring in the Kellaways Beds just below the horizon of

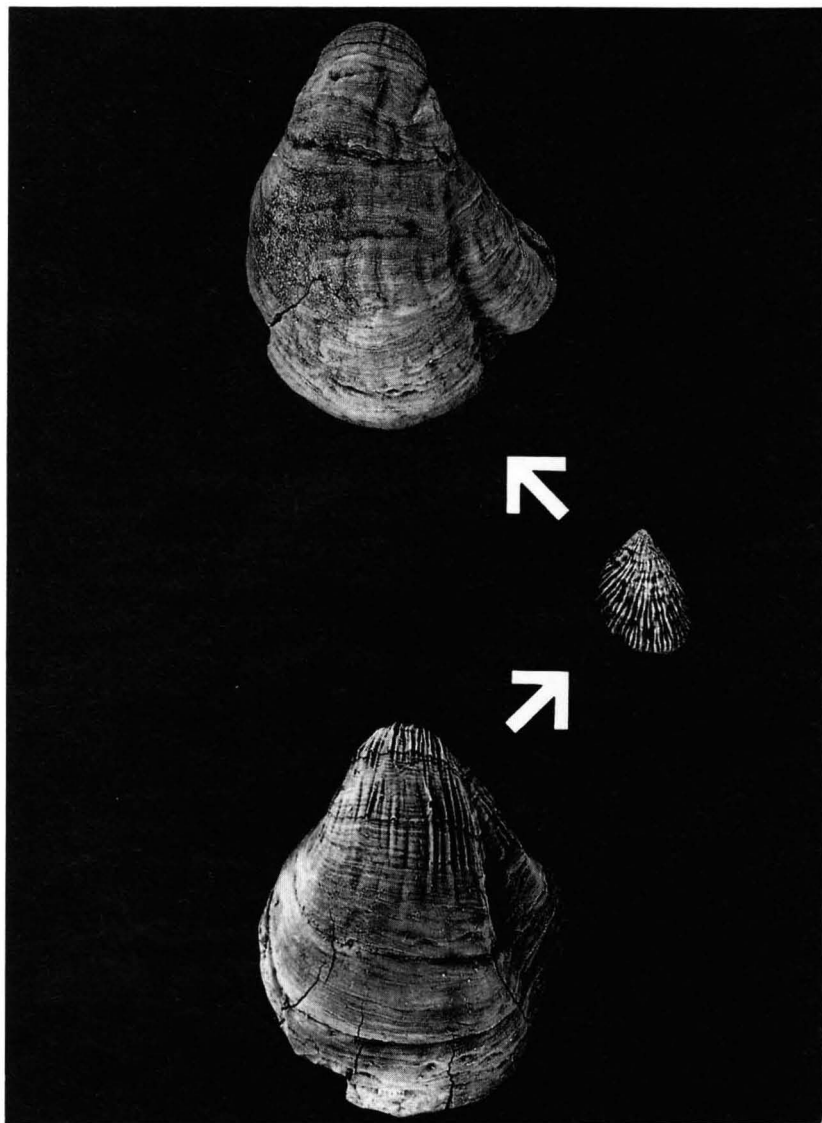


Fig. 1. The antecedents of 'Oxford Clay' *Gryphaea* (*Bilobissa*). Evolution proceeded from *G. (B.) pictaviensis* (lower specimen) through *G. (Catinula)* (middle) and back to *G. (Bilobissa)* (upper; specimen from the Kellaways Beds immediately beneath the Oxford Clay). An unribbed *G. (Bilobissa)* lineage, derived directly from *G. (B.) pictaviensis*, persisted for a while alongside *G. (Catinula)*. All specimens left valves. Lower specimen 5 cm high.

common *G. (Bilobissa)* – in fact describe a morphological transition between the two subgenera (no discontinuities can be detected from other characters). This evidence of transition implies that the sporadic earlier occurrences of *G. (Bilobissa)* are representative of a lineage – derived, like *G. (Catinula)*, from *G. (B.) pictaviensis* – which became extinct.

Our suggestion is that for much of the early history of this *Gryphaea* stock environmental conditions made shell secretion difficult and hence growth to large size a slow process. In the lack of any adaptation for stability other than the weight of the shell there would have been a high risk of overturning (and death) by wave or current action. The ribs of *G. (Catinula)* may have increased grip on the substrate, reducing the risk of overturning in small shells and thus perhaps enabling survival of this lineage while descendants of *G. (B.) pictaviensis* continuing with the 'normal' stabilising strategy became extinct. It is significant in this regard that the *G. (Bilobissa)* descendants of *G. (B.) pictaviensis* lack a ribbed phase early in growth.

Independent evidence suggesting slow growth is derived from the reduced size of other bivalves (scallops and trigonoids) occurring in sequences containing *G. (Catinula)*. The cause is as yet unknown but freshwater input, which certainly retards shell growth in modern marine bivalves, may well have been high at some times of *G. (Catinula)* occurrence. It is planned to obtain direct evidence of growth rates from studies of growth rings, and to investigate the possibility of changes in marine salinity (and other variables) through analysis of carbon and oxygen isotope ratios in shell material.

Growth-ring studies already in progress on early Jurassic *G. (Gryphaea)* indicate that in this lineage size changes (more modest than in the mid-Jurassic forms discussed above) are a result of variations in growth rate, rather than the alternative of changes in longevity.

Reference

- Johnson, A.L.A. and Lennon, C.D., 1990. Evolution of gryphaeate oysters in the mid-Jurassic of western Europe. *Palaeontology* 33: 453–485.

Mollusc Survey of Ben Lawers NNR

R.W. and Dorothy K. Marriott

Aberdeen

'The boreo-alpine species *Columella columella*, *Discus ruderratus*, and *Nesovitrea petronella* have a fossil record in Britain but it seems unlikely that they have survived. If they have, it will be on an ungrazed rock ledge or in a calcareous flush high above a remote Highland glen.' (Bishop, 1977). If such species exist in Britain they are likely to be associated with relict communities of arctic/alpine plants. The recent discovery of *Vertigo modesta* at 900m in such a plant community in south Inverness-shire (Marriott and Marriott, 1988) reinforces this idea. Ben Lawers NNR is renowned for its rich arctic/alpine flora and the present survey was undertaken in the hopes of discovering any such relict mollusc populations which might be surviving on the Reserve.

Sampling sites were chosen to cover the whole area of the Reserve, from Meall nan Tarmachan in the west to Meall Greigh in the east. The Reserve is heavily grazed by sheep and the arctic/alpine flora is almost entirely restricted to steep craggy areas inaccessible to grazing: sampling sites were chosen mostly in these botanically richer areas, which provide more suitable habitats for molluscs. Particular attention was also paid to remnants of montane willow scrub. The sampling sites are briefly described in Table 1. Sampling consisted of (usually) both authors searching debris, vegetation, etc. by hand for approximately 30 minutes. To extend the search, litter/debris samples of approximately one litre volume were collected where possible, dried, sieved and searched under laboratory conditions.

Results and Conclusions

1. Distribution of the mollusc species found is presented in Table 2. A total of 24 species were found, none of which is particularly rare in Britain. No relict arctic/alpine mollusc populations were found.

2. Looking at the 32 sites surveyed there is a steady fall in the number of species found with increasing altitude (Table 3).
3. No species were found that only occur at high altitude. *Lymnaea truncatula* was found only at 800–999m, but this lowland snail was presumably only found there because there were wetter sites.
4. No *Vertigo* species were found although particular effort was made to look for these – following the discovery of *V. modesta* in Inverness-shire.
5. A comparison can be made between the results found in Dance's 1972 paper on Ben Lawers molluscs (a combination of his own searching and a literature survey) and the present study sites 16 to 25, which covers the area included in his paper (see Table 4).

If we take Dance's results from 700–799m to be equivalent to ours between 800–899m there is a close correlation in the two surveys. (We had no sites between 700m and 799m in this area, and Dance none between 800m and 899m. Our results for the whole Reserve do show equal numbers of species in these two altitude bands (Table 4).

- a) Note that he included freshwater *Pisidium* species at two sites: we did not look at freshwater sites.
- b) We found *Clausilia bidentata* at greater altitude, he found *Arion ater* at greater altitude than we did.
- c) We found no *Deroceras reticulatum*, but this may have been because the weather had been warmer and drier.
- d) We did find *Columella* at 1050m (Dance did not find it despite a special search at about this height). All those we found were *C. aspera* although some were a little atypical, being taller and with a more rounded mouth than most Scottish specimens.
- e) We found a greater variety of species below 599m than Dance, despite examining fewer sites (Table 4). If we include the results from Creag an Lochain our species total below 599m doubles from 11 to 22 species from just three more sites.

- f) Molluscs found in the highest areas were very similar: five of the seven species noted by Dance above 1000m were found at 1050m in the present study.

6. The cliffs of Creag an Lochain were the richest for molluscs, with 19 species found. If we exclude those below 690m we still have 11 species from three sites (700–790m), compared with only seven species from seven sites from Meall Garbh – Meall Greigh (690–1020m) at the other end of the Reserve.

It is in some ways surprising that Ben Lawers with its associated rich arctic/alpine flora has no relict population of arctic/alpine molluscs. It may be that the relative accessibility of so much of the ground to sheep and deer and the long history of grazing by domestic animals has led to the virtual extinction of suitable habitat, e.g. montane willow scrub. We may never know whether such species ever existed during the period following the retreat of the glaciers.

Acknowledgements

We are grateful to Dr M.P. Kerney for his help in identifying the *Columella aspera* and *Vitrina pellucida* and to D.K. Mardon for all his help with the survey, especially his suggestions for sampling sites.

References

- Bishop, M.J., 1977. The habitats of Mollusca in the Central Highlands of Scotland. *J. Conch., Lond.* **29**: 189–197.
- Dance, S.P., 1972. Vertical range of molluscs on Ben Lawers, Scotland. *J. Conch., Lond.* **27**: 509–515.
- Marriott, R.W. and D.K. Marriott, 1988. *Vertigo modesta*, a snail new to the British Isles. *J. Conch., Lond.*, **33**: 51–52.

Table 1: Description of Sampling Sites

Cam Chreag, Meall nan Tarmachan

1. NN581378 780m Herb rich ledges at base of cliffs with *Anemone nemorosa*, *Vaccinium myrtillus*, *Thymus drucei*, *Alchemilla alpina*, and adjacent slopes with grass spp., *Ranunculus* sp., *Thymus drucei*, *Alchemilla alpina*.
2. NN581379 780m Herb rich ledges at base of cliffs with *Alchemilla alpina*, *Silene acaulis*, *Thymus drucei*, moss spp., grass spp. (*Armeria maritima*, *Botrychium lunaria*.)
3. NN582381 780m Herb rich ledges at base of cliffs with *Alchemilla alpina*, *Geranium sylvaticum*, *Oxyria digyna*, *Taraxacum officinale*, *Ranunculus* sp., *Sedum rosea*, *Silene acaulis*, *Anemone nemorosa*, *Polystichum lonchitis*, etc.
4. NN581383 870m Ledge with taller herbs: *Alchemilla glabra*, *Geum rivale*, *Polystichum lonchitis*, *Sedum rosea*, *Heracleum sphondylium*.
5. NN581384 900m Gully to west of saddle with grassy turf containing *Alchemilla alpina*, *Silene acaulis*, *Saxifraga oppositifolia*, *Thymus drucei*.
6. NN582386 950m Ledges with *Silene acaulis*, *Alchemilla alpina*, grass spp.
7. NN584385 880m Ledges with *Saxifraga oppositifolia*, *Alchemilla glabra*, *Oxyria digyna*, *Veronica fruticans*, *Sedum rosea*, *Cerastium* sp.

Creag an Lochain

8. NN595393 580m Base of cliffs at NW corner of Enclosure 1 and among taller herbs within Enclosure 1.
9. NN595393 580m Cliffs to NE of Enclosure 1.
10. NN593401 700m Gully of burn and adjacent area. *Salix arbuscula*, *Vaccinium myrtillus*, *Alchemilla alpina*, *Saxifraga aizoides*.

11. NW591401 790m Crag with herb rich ledges: *Alchemilla alpina*, *Salix reticulata*, *S. arbuscula*, *Sedum rosea*, *Saxifraga oppositifolia*, *S. aizoides*, *Silene acaulis*.
12. NN590404 770m Cliff with *Luzula sylvatica*, *Sedum rosea*, *Alchemilla alpina*, *Oxyria digyna*, *Saxifraga oppositifolia*, grass spp.
13. NN591410 600m Very herb rich ledges with *Salix reticulata*, *S. arbuscula*, *Dryas octopetala*, *Mercurialis perennis*, *Saxifraga oppositifolia*, *S. aizoides*, *Alchemilla alpina*, *Silene acaulis*, etc.
14. NN592411 570m Large boulder.

SW slope of Meall Corranaich

15. NN603400 600m Gully with *Salix reticulata* – also *S. arbuscula*, *Dryas octopetala*, *Trollius europaeus*, *Silene acaulis*, *Sedum rosea*, etc., and nearby stable boulder scree.

Edramucky Burn

16. NN612384 510m Grass spp., fern spp., *Vaccinium myrtillus*, *Salix aurea*.
17. NN613387 540m At dam and among *Juncus* tussocks just above dam.
18. NN613388 550m Among *Juncus* tussocks.
19. NN613391 620m Junction of Edramucky with tributary.

Ben Lawers, SW crags

20. NN633411 1050m Herb rich ledges with *Veronica fruticans*, *Myosotis alpestris*, etc.

An Stuc and adjacent areas

21. NN640422 800m Creag an Fhithich. Cliff ledges with *Angelica sylvestris*, *Luzula sylvatica*, *Geranium sylvaticum*, *Alchemilla alpina*, *Sedum rosea*, *Saxifraga aizoides*, *Succisa pratensis*, *Salix lapponum*.

22. NN637424 930m Below Bealach Dubh. Cliff ledges with *Sedum rosea*, *Alchemilla alpina*, *A. glabra*, *Saxifraga oppositifolia* (*S. hypnoides*, *S. stellaris*).
23. NN639427 820m An Stuck, SW crags. Ledges with *Succisa pratensis*, *Angelica sylvestris*, *Sedum rosea*, *Saxifraga oppositifolia*, *Silene acaulis*, *Solidago virgaurea*, *Anthyllis vulneraria*, *Oxyria digyna*, *Mercurialis perennis*, *Sorbus aucuparia*, *Juniperus communis*.
24. NN641428 800m Cat Gully. Herb rich cliff ledges with *Oxyria digyna*, *Alchemilla alpina*, *Sedum rosea*,
and *Geranium sylvaticum*, *Angelica sylvestris*, *Saxifraga oppositifolia*, *Silene acaulis*, *Salix lapponum*, *S. reticulata* (*Salix* spp. site 25 only.)
25. NN641430 900m

Meall Garbh

26. NN641433 1020m SW crags of Meall Garbh. Heavily grazed ledges: *Alchemilla alpina*, *Salix herbacea*, grass spp.
27. NN650433 760m Creag a Bhuic. *Vaccinium myrtillus*, *Calluna vulgaris*, *Empetrum* sp.
28. NN653434 760m *Juniperus communis*, *Salix lapponum*, *Vaccinium myrtillus*, *Sedum rosea*, etc.

Meall Greigh

29. NN658434 720m Small boulder with moss sp. and *Alchemilla alpina*.
30. NN657435 745m Steep slope under *Salix phylicifolia*. *Alchemilla alpina*, *Oxyria digyna*, *Luzula sylvatica*, *Empetrum* sp., *Vaccinium myrtillus*, *Sedum rosea*, *Saxifraga aizoides*.
31. NN658436 780m Steep slopes under two remnant *Salix lapponum* bushes. Herbs as at site 30.
Sites 29, 30 and 31 all within Exclosure 3.
32. NN674427 690m Sron Mhor. *Calluna vulgaris*, *Vaccinium myrtillus*, *Luzula sylvatica*.

Table 2: Distribution of Mollusc Species

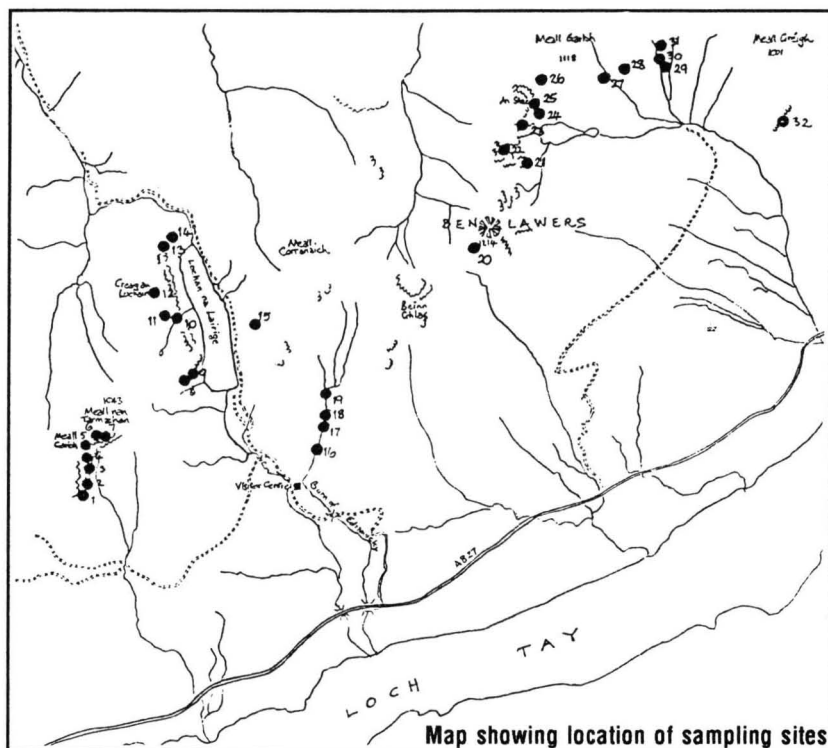
	Cam Chreag, Meall nan Tarmachan							SW slope Meall Corraich							Edramucky Burn					SW crags Ben Lawers					An Stuc, etc.			Meall Garbh			Meall Greigh	
Site Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
<i>Carychium minimum</i>																		•														
<i>Carychium tridentatum</i>																		•														
<i>Cochlicopa lubrica</i>									•				•				•				•											
<i>Columella aspera</i>									•		•				•				•													
<i>Punctum pygmaeum</i>									•						•						•			•							•	
<i>Discus rotundatus</i>															•																	
<i>Arion ater</i>	•	•				•		•	•	•			•	•	•	•	•	•			•			•	•	•		•	•		•	•
<i>Arion subfuscus</i>						•		•	•				•	•	•					•		•		•	•	•						
<i>Arion intermedius</i>	•	•	•					•	•	•			•	•	•	•	•		•		•		•	•	•	•			•	•	•	
<i>Vitrina pellucida</i>	•	•					•								•					•		•			•							
<i>Vitrea crystallina</i>				•			•				•				•				•		•								•		•	
<i>Vitrea contracta</i>					•											•																
<i>Nesovitrea hammonis</i>	•											•				•														•		
<i>Aegopinella pura</i>									•				•								•			•								
<i>Oxychilus alliarius</i>									•																							
<i>Limax marginatus</i>						•		•							•	•				•					•	•			•			
<i>Euconulus fulvus</i>																																
<i>Clausilia bidentata</i>			•				•	•	•	•		•			•					•				•	•							
<i>Balea perversa</i>														•																		
<i>Trichia hispida</i>								•					•	•						•												
<i>Arianta arbustorum</i>					•			•	•			•	•	•						•				•		•						
<i>Cepaea nemoralis</i>								•		•																						
<i>Cepaea hortensis</i>								•																								
<i>Lymnaea truncatula</i>																									•	•						
Total no. of spp.	10							19							8	11					6	12					3	7				

**Table 3: Sites at which Molluscs Found
Arranged by Altitude Band**

Species	Up to 599m	600 to 699m	700 to 799m	800 to 899m	900 to 999m	1000m and above
<i>Carychium minimum</i>	18					
<i>C. tridentatum</i>	18					
<i>Cochlicopa lubrica</i>	9	13				
<i>Columella aspera</i>	9,17	15,19	10			20
<i>Punctum pygmaeum</i>	9	15	31	21,23	25	
<i>Discus rotundatus</i>		13	12			
<i>Arion ater</i>	8,9,16, 17,18	13,15, 32	1,2,10, 12,27, 28,30,31	21,23, 24	5,25	
<i>A. subfuscus</i>	8,9,17	13,15	3,12,31	7,24	5,22, 25	20
<i>A. intermedius</i>	8,9,16, 17	13,15, 19	1,2,3,10 12,28, 30,31	21,23, 24		20
<i>Vitrina pellucida</i>	9	13,15	1,2,11, 29,31	4,7,21, 23,24	22	20
<i>Vitrea crystallina</i>	9,18	13	3,10,11	7,21	5	
<i>V. contracta</i>	16			4,24		
<i>Nesovitrea hammonis</i>	16		1,11,30			
<i>Aegopinella pura</i>	9	13		21,23, 24		
<i>Oxychilus alliarius</i>	9	13				
<i>Limax marginatus</i>	8,16	13,15	29	24	6,25	20
<i>Euconulus fulvus</i>	17					
<i>Clausilia bidentata</i>	8,9	15	2,10,11, 12	7,23, 24		20
<i>Balea perversa</i>	14			24		
<i>Trichia hispida</i>	8,9	13	12			
<i>Arianta arbustorum</i>	8,9	13	11,12	23	5,25	20
<i>Cepaea nemoralis</i>	8,9					
<i>C. hortensis</i>	8					
<i>Lymnaea truncatula</i>				24	25	
Total no. of species	22	15	13	13	8	6
No. of sites visited	6	4	11	5	4	1

Table 4: Comparison with data presented by S.P. Dance (1972)

	Up to 599m	600 to 699m	700 to 799m	800 to 899m	900 to 999m	1000m and above
Dance:						
total no. of spp.	6	2	11	—	6	7
no. of sites visited	7	2	6	0	6	12
Present study – area covered by Dance only:						
total no. of spp.	11	2	—	13	7	6
no. of sites visited	3	1	0	3	2	1
Present study – entire area covered:						
total no. of spp.	6	15	13	13	8	6
no. of sites visited	6	4	11	5	4	2



Collectors in East Africa

No. 17: G.A. Fischer (1848–1886)

B. Verdcourt

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

Gustaf Adolf Fischer was born in Barmen, which was then in Rhenish Prussia and now part of Wuppertal, on 4 March 1848 and studied medicine and natural science at Bonn, Berlin and Würzburg, becoming medical officer to the First Dragoon Guards in 1874. He obtained leave to join an expedition to East Africa and 1877 found him in Zanzibar. In June of that year he joined Denhardt's expedition to Witu, that area of the (now) Kenya coast opposite Lamu, a part of the Sultanate of Zanzibar which was under German influence until 1886. I suspect this influence lasted until a few years later: in fact I saw an old German notice still on a building in Witu in 1960! Prestwich (1963) states he made 'two journeys along the coast of Kenya Colony [not of course in existence then] to Witu and the Upper Tana, in 1877 and 1878.' From 1879 to 1882 he was in medical practice in Zanzibar (presumably having been permanently released from the Dragoon Guards) in order to raise money for further expeditions. He must of course have known Kirk who was, however, wary of the intentions of all Germans in East Africa and very anxious that undescribed plants and animals should, as far as possible, be written up by British scientists.

Fischer made a long expedition at the end of 1882 with the support of the Geographical Society of Hamburg, leaving from Pangani, skirting south of Kilimanjaro thence to Lake Magadi and up to Lake Naivasha, thus being the first European to enter what was later to be called the 'White Highlands of Kenya'. He was unable to proceed further due to the hostility of the Masai despite the fact that he had 300 armed askaris (native soldiers) under his command. He returned safely to Pangani in 1883.

His third journey also started in Pangani in August 1885 with the purpose of relieving Dr Junker, Emin Pasha and other Europeans stranded in the Sudan. He aimed to pass the southern

end of Lake Victoria, and move up the eastern shores to the north-east corner (Kavirondo). The return was to be via Lake Baringo and Lake Naivasha, before passing north of Kilimanjaro and thence to the coast. Prestwich says that on proceeding to skirt Lake Victoria, Fischer found the country devastated by famine and so was forced to return without making contact with Junker and his companions.

These are staggering journeys not to be contemplated lightly even today by car. It is a tribute to the unostentatious but practical methods of this man that his journeys were so successful. He wrote two interesting travel books (1885). He died in Berlin on 11 November 1886 a few months after leaving Africa where he had obviously contracted a fever.

Although mainly an ornithological and botanical collector Fischer also collected a few snails and also some slugs which must have been preserved in spirit. The slug specimens appear to be no longer extant but the snails and birds are in the Zoological Museum in Berlin. Many of his plants are preserved in Hamburg but a great many were destroyed in Berlin during the Second World War; needless to say the majority were previously undescribed species so the loss of the types is serious. Unfortunately many of them were very inadequately localized which makes the species difficult to interpret from the original descriptions; the consequences of their loss are therefore that much more serious. His name is commemorated in the epithets of many plants, Fischer's lovebird (*Agapornis fischeri*) and probably other birds, Fischer's shrew (*Crocidura fischeri*) and *Rhynchocyon petersi fischeri* (now sunk under the nominate race) Peter's black and red elephant shrew; also Fischer's Needle, a remarkable pinnacle of rock near Lake Naivasha at the mouth of Njoroa Gorge (Hell's Gate) in Kenya. The lovebird was one of the 22 new species of birds he discovered.

List of molluscs described from material collected by Dr G.A. Fischer in East Africa

The molluscs collected by Fischer were described by von Martens (1879) and Simroth (1889, 1896):

Buliminus (Rhachis) succinctus von Mts., 1879. Tanzania,

Bagamoyo (Berlin Zoological Museum, syntypes). *Rhachidina braunsi succincta* (von Mts.)

Cleopatra aureocincta von Mts., 1879. Tanzania, Bagamoyo (Berlin Zoological Museum, holotype). *Cleopatra ferruginea* (I. & H.C. Lea).

Leptichnus fischeri Simroth, 1896. Tanzania, without locality (formerly presumably in Berlin Zoological Museum but not extant). Unchanged.

Limicolaria martensiana (Smith) var. *multifida* von Mts., 1895. Kenya, Victoria Nyanza, Fischer (Berlin Zoological Museum, syntype) (other syntypes were collected by Neumann and Stuhlmann; also cited is pl. 32, fig. 1A in Smith's paper in *Proc. zool. Soc.* 1880: 745 and the specimen this was drawn from is also presumably a syntype). *Limicolaria martensiana martensiana* (Smith).

Limicolaria nilotica (Pfr.) var. *crassa* von Mts., 1895. Kenya, Victoria Nyanza, Fischer (Berlin Zoological Museum, syntype) (material collected by Neumann in NE. Victoria Nyanza area is also a syntype). *Burtoa nilotica crassa* (von Mts.)

Physopsis nasuta von Mts., 1879. Tanzania, Bagamoyo (ZMB Moll. 31156A lectotype, 31156B paralectotypes). *Bulinus nasutus* (von Mts.) (I showed (1965) that the correct name for this is *B. praeclarus* (Bgt.) but *nasutus* is still the name in common use).

Trichotoxon heyneimanni Simroth, 1889. Kenya, Witu (Berlin Zoological Museum, type(s) not extant; must have been in spirit.) Unchanged.

Trichotoxon volkensii Simroth, 1896. No locality given but Heyneimann (1906) says probably Kwa Katsch which may be Nyakach at the eastern end of the Kavirondo Gulf in Kenya. Presumably Simroth named it merely to honour Volken's connection with East Africa – he did collect some slugs on Kilimanjaro but Simroth does not mention his name in connection with this one. *Polytoxon robustum* (Simroth).

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Addendum

Whilst this article was in the press R. Kiliás published a further instalment of his list of types in the Berlin Museum (Achatinidae) (*Mitt. Zool. Mus. Berl.* 1992. 68: 167–80). Since he does not include Fischer specimens of either *Limicolaria* mentioned above it appears some Fischer specimens are not at Berlin.

Correction to Collectors in East Africa No. 13 (part 1)

The Conchologists' Newsletter No. 106 6: 115, line 27, for 'G.C.' read 'G.A.'

Addendum to Collectors in East Africa No. 14:

The Conchologists' Newsletter No. 113 6: 275: *Atoxon fuelleborni* Simroth, 1910. Tanzania, Tukuyu (formerly Langenburg) (presumably a spirit specimen formerly in the Berlin Zoological Museum but no longer extant). Unchanged.

Simroth, H., 1910. Lissopode Nacktschnecken von Madagascar, den Comoren und Mauritius. Reise in Ostafrika 1903–5 A. Voeltzkow, *Wiss. Ergebn.* 2(5): 577–622, pl. XXV, XXVI.

Questionnaire on Marine Recording: Summary of Findings

Jan Light, Marine Recorder

Godalming, Surrey

By the time this notice is published it will be over a year since I received most of the responses to my questionnaire on marine recording. All respondents have received individual verbal or written replies, and requests for information, cards, advice on identification guides, etc. have been answered. For the interest of all those who completed the questionnaire and for members' information a summary of some of the findings is presented below.

Of a total membership of about 400, I received 26 replies! The small number was a surprise to me. I had anticipated that there would be a large proportion of the membership who would not complete the form for any of a number of reasons; even so, it suggests that the marine recording side of the Society's activities has a very limited appeal. Yet there must be a significant proportion of our members who are visiting the shore to collect shells and look at live habitats. Is it a lack of interest in sending in records, a lack of time and knowledge to complete cards, a lack of confidence in identification or a lack of information about the Marine Census Scheme? In running the Scheme for the Society I would find it helpful to receive any comments members have to make about this and would be very pleased to provide information and advice to any member who would like to know more about the Scheme. By the way, it is *not* too late to complete and submit the questionnaire (attached to *Conchologists' Newsletter* No. 118)! I am keeping the completed questionnaires as a register.

Of the 26 replies, one came from Belgium and one from Holland. With the expansion of the Marine Census area to include the eastern coasts of the North Sea, responses from the Continent were particularly welcome as it is hoped to involve fellow European members in active recording.

Fifteen respondents needed information about the Scheme. Not all were newer members which suggests that our goals may need restating and, in some instances, redefining. Much of this was covered at the Marine Recording meeting at Dunoon in May 1992 and I hope to publish a policy statement with a historical review of the Scheme in due course. In the meantime a new recording card has been printed. Members can be sent some cards with a provisional concordance, which gives the new nomenclature together with synonyms and hints on how to fill in the cards with additional details such as an estimate of abundance and some information about the habitat and site. A document with guidance for recorders is also available. The Scheme has just entered a new phase with a new category of post-1990/pre-1991 records on a finer grade of mapping. It could not be a better time to join in!

Few respondents are divers or have access to offshore material and records. This is a pity as the sea areas extend well out to sea and we should not restrict our recording to coastal habitats. This suggests we need to build up means of contact with organisations and institutions who obtain offshore data and are willing for members to either accompany surveys and collect some material at the same time, or examine specimens already collected or extract data from their own files. Because some commercial organisations contract out research work, the data is sometimes not available to us because it is confidential but this is not always the case. Any member who would like to pursue this can write to me for advice on setting up contacts.

It is evident from the replies that I received that constraints of time and money restrict the amount of input members can make. Also, as naturalists, many members are likely to belong to more than one such society and have conflicts of interest which restrict their availability to join in the programmes of activity. Field meetings are seldom on members' doorsteps and for a one-day meeting travelling a fair distance can be hard to justify. Having said this, the recent programme of field meetings has been highly successful and they are an excellent way of meeting involved members as well as beginners and getting help and advice on

aspects with which the Society is concerned. All members are welcome at these meetings.

Most respondents said they would like to see more in the Newsletter about the Marine Census and it is my intention to address this issue. Many of you felt it was important that records submitted should be acknowledged and not swallowed up silently into the system! In company with my predecessor I have tried to operate a policy of replying to all correspondents and it is my intention to continue in this way. Area representatives should also be responsive to people sending in records or writing for advice. As some Sea Areas are not represented or if you do not know who the appropriate Representative is, you can always write to me in the first instance.

One respondent, Alan Skene, Area Representative for S3 Orkney, said the feedback he would really appreciate would be contact with other collectors and recorders. One of the main aims of a newsletter must be to bring members together so I would like to reiterate the Editor's encouragement to members to write in.

Ending on a positive note, I can announce the recruitment of a new Sea Area Representative with responsibility for Sea Areas S23 and S24. Tom Clifton ([REDACTED] Rochdale, Lancashire [REDACTED] has been a member since 1985 and contacted me last year with information about the conchological records that he had been keeping. A regular visitor to Anglesey and his home coasts near Rochdale, he has now drawn up maps for S23 and S24 gridded on a 2' lat. by 2' long. and has begun to assemble working atlases of his records. Tom is an enthusiastic recorder and would like contact with fellow members collecting or recording in his area or from other sea areas. In welcoming Tom, I would like to thank outgoing representatives Ian Wallace (S24) and Ivor Rees (S23) for their past contributions to the Society's Marine Census.

Oysters East and West: Have the twain met?

Stella Maris Turk

Camborne, Cornwall

About two decades ago a paper was published entitled 'Portuguese and Japanese oysters are the same species' (Menzel, 1974). His belief that the Japanese or Pacific Oyster (*Crassostrea gigas* (Thunberg, 1793)) is indeed the same species as the Portuguese Oyster (*Crassostrea angulata* (Lamarck, 1819)), is accepted in the latest checklists (Smith & Heppell, 1991). For taxonomic convenience rather than proof of subspecific status, Menzel suggested that the Japanese Oyster should be termed *Crassostrea gigas angulata*. Thiriot-Quievreux (1984) writes that *C. gigas* and *C. angulata* display similar karyotypes (the appearance, number and arrangement of the chromosomes), supporting Menzel's theory that they are the same species.

This is more than a mere quibble about names as it is puzzling how two populations could have remained so similar when living at opposite sides of the world. The ancient sea of Tethys would have allowed their dispersal about the globe. This vast ocean stretched from east of the Pacific ocean to its western shores across the great land mass of the earth north of the Austral Sea. It divided Gondwanaland and Australis from Atlantis and Europa-Angara and it was at its maximum in the earlier Jurassic, perhaps 170-160 million years ago. Subsequently it progressively dried up, but the locality of Portugal and Britain had an oceanic connection with that of Japan in the Eocene as late as 50 million years ago. By the Miocene the continuous sheet of water was broken, so we may suppose these two populations of oyster have been separated for some 15 million years at least. Like some other filter feeders (cf. Brachiopods) these facts suggest that the Portuguese/Japanese Oyster is a very slowly evolving species.

Menzel postulates another theory: that the Portuguese introduced the species to Japan sometime between 1542 (the first report of Portuguese sailors visiting Japan) and the early 1600s

when Japanese oyster culture started. However, Kidder (1959, p. 38) records that *Crassostrea gigas* is present in prehistoric kitchen middens in that country! Yonge (1960, p. 85) discusses the distribution of the Portuguese Oyster. He writes, 'There is, unfortunately, no certainty as to when it first appeared although there is evidence that it may have been present in Europe in the early years of the Christian era. That would be much too soon for it to have been carried on boats coming from the Far East.' In fact there is positive evidence that '*C. angulata*' was present in the Neolithic site in Ramalha, Portugal, although the shells were few compared with *Ostrea edulis* (Dr An Lentacker, pers. comm.).

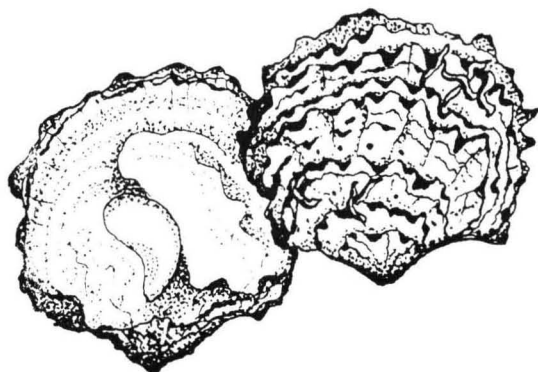


Fig. 1. *Ostrea edulis* L.

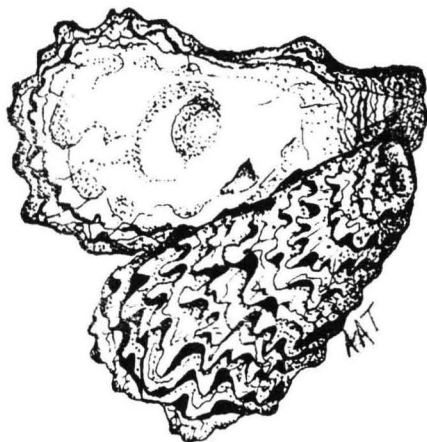


Fig. 2. *Crassostrea gigas* (Thunberg)

Dr Roger Mitchell (pers. comm.) says that it is uncertain when '*C. angulata*' was first imported to Britain but he believes that it was in the last two decades of the last century, and continued until the 1960s. It was the 1960s when *Crassostrea gigas* was first imported and spat/seed was then produced in a number of hatcheries in Britain: now probably the only commercial hatcheries are in Whitstable and Guernsey, with occasional production at Loch Sween and MAFF experimental work at Conway. *C. gigas* does not regularly breed in the comparatively cold waters of the British Isles. Yonge (1960, p. 84) notes that '*C. angulata*' seldom breeds but that 'from time to time, during hot summers, it does spawn and spat may settle and grow': note that this was a few years before *C. gigas* was introduced. Similarly *C. gigas* s.s. 'occasionally settles and grows to maturity in the wild' (Smith & Heppell, 1991), and Mitchell (1985) records naturally settled spat in Poole Harbour in 1971 and Loch Sween in 1984. In 1971, Dr Mitchell (pers. comm.) found many hundreds of approximately two-year-old '*C. angulata*' settled in the Blackwater, Essex 'probably from successful spawning of the residual adults in 1968' (there had been no importation for some years to this site which was operated by a single company). Dr Mitchell adds that certainly 1968 was a good spawning year for another non-native, *Mercenaria mercenaria*, in Southampton Water.

C. gigas is noted for the speed of its growth, due to it being more efficient than *Ostrea edulis* in dealing with sediment and a variable salinity; this enables it to take advantage of the richer food supplies available in creeks and estuaries. Indeed, it is so accommodating that it has been deliberately and successfully introduced to many parts of the world, including France (in the mid-19th century), Australia and North America. It has now established breeding populations in the Netherlands (the Oosterschelde and Waddensea) as well as in France.

It seems that *C. gigas* must be considered a relict species in both Portugal and Japan and is now being widely distributed by human agency to other continents.

I would be very glad to hear from readers on any aspect of the *Crassostrea gigas/angulata* relationship. Already I am indebted to David Heppell (for a copy of the paper by Menzel), to Dr An Lentacker (oysters in Portuguese middens), to Dr Roger Mitchell (for a wealth of information on the introduction, rearing and breeding of the two taxa), to Dennis Seaward (for an extract of the paper by Thiriot-Quievreux) and to Dr F.A. Turk (oysters in Japanese middens and the Sea of Tethys). Thanks are also due to Andrew Tompsett for the accompanying drawings.

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Opinions published in the Bulletin of Zoological Nomenclature

The following Opinions were published on 30 September in Vol. 49, Part 3 of the *Bulletin of Zoological Nomenclature*:

Opinion 1690 *Helix (Helicigona) barbata* Férussac, 1832 (currently *Lindholmia barbata*; Mollusca, Gastropoda): lectotype designation confirmed.

Opinion 1691 *Polygyra* Say, 1818 (Mollusca, Gastropoda): *Polygyra septemvolva* Say, 1818 designated as the type species, and POLYGYRIDAE Pilsbry, 1895 given precedence over MESODONTIDAE Tryon, 1866.

A Novice on the Weymouth Dredging Trip

Sebastian Payne

Cambridge

Bucket in hand, standing on the steps of the station and casting around for the others on the field trip, I caught sight of a knot of people who didn't quite look like holiday-makers. A closer look revealed Ian Killeen, in a striped shirt that rapidly became a landmark, assorted members, plastic bags, specimen tubes – the Weymouth field trip had started.

A convoy of cars sped off to the first locality – Charmouth, where *Cochlicella barbara* had recently been reported. Arriving at the beach car-park, below an inviting slope of rough grass across the river to the east, we were surprised to be directed instead to an unpromising patch of sandy rough grass, brambles and burdock complete with nettles and litter, between the car-park and the beach. But within five minutes the cry went up – the sharp eyes of one of the younger members of the party, Deniz Craig, had found the first *C. barbara*, followed rapidly by several more, together with *Ashfordia*, *Cochlicopa* and several other species, living in local damper patches in the rough grass. And the inviting slope, visited later, produced almost nothing – a lesson in the value of knowing about previous work and recording.

A couple of hours and several sandwiches later we moved on to Seatown, three miles to the east, where we arrived shortly below low tide and walked west along the beach to a wave-cut rock platform with boulders under Wear Cliffs. All three *Patella* species provided an opportunity for Ian to explain how to tell them apart – the first time I had seen *Patella ulyssiponensis* (*P. aspera*); after half an hour I felt fairly confident, though there were some that I still felt uncertain about. Two other points of interest were the presence of *Monodonta* in some abundance and the absence of *Littorina obtusata*. Puzzled to see Ian filling polythene bags with handfuls of seaweed from the lower shore and from rock pools, I was introduced to weed washing and followed suit. Some of the party then moved on to look at the abundant

belemnites and ammonites at the base of the cliffs while others carried on searching pools and under boulders.

Time was by now drawing on, so we returned to Weymouth – some to lodgings, others to tents – and met again for supper at the Streamside Restaurant, just outside Weymouth, where we were joined by Jan Light and her parents. Before a very pleasant supper, we admired the photographs in Ian's new book (*The Land and Freshwater Molluscs of Suffolk*) and Jan explained the new recording cards and handed round supplies. Arriving back at my lodgings, I fell into bed – we were due to meet at 7 am at the harbour.

At the appointed time, and relieved that the wind had dropped and the sky looked quite bright, the dredging party met on the *Black Tigress*. We loaded buckets, sieves, knapsacks and dredges onto the boat and steamed off eastward towards Lulworth through a choppy sea. As the sea broke across the deck, the veterans hauled on their waterproof trousers; without them, I got wet and felt fortunate that it wasn't a cold day.

Arriving off Durdle Door, a natural arch in the chalk cliffs, in about 60 feet of water above what we hoped was an area of maerl, we sent down the scallop dredge; the first haul came up with live *Glycymeris*, *Paphia rhomboides* and stones burrowed by *Thracia distorta*. Working slowly to the west, we soon decided to try Jenny Mallinson's pipe dredge – a heavy iron tube about four feet long and six inches in diameter. Doubts that it would catch much were soon dispelled – it came up full of coarse grit with abundant *Nucula hanleyi*, *N. nucleus* and a range of other smaller species, giving a much better impression of what the bottom was like and a much wider range of species than the scallop dredge. Specimens of *Pandora pinna* were found in several hauls. As each dredge came up we clustered round with trowels and sieves at the ready to bear off a sample and shout out what we had found.

Arriving opposite Osmington, we found a sandy bottom with *Zostera* and tried out Jan's naturalist's dredge, bringing up a haul of *Gibbula magus*, *Hinia reticulata*, *H. pygmaea* and *Mangelia* spp. Here, the pipe dredge produced very little – presumably population densities were simply very low. Moving still to the

east, we came into Weymouth Bay, where the bottom was of fine sand, clogging the naturalist's dredge and producing relatively little – the odd *Nucula nitidosa*, *Pandora inaequalvis* and *Chamelaea gallina*.

Finally, we went through the breakwater into Portland Harbour and brought up the pipe dredge full of glutinous mud with abundant *Abra alba*, *A. nitida*, *Akera bullata* and some tiny pyramidellids (*Turbonilla* and *Tragula*). By this time it was half past three – time to wash the mud off everything and return to harbour and to Cambridge, with a bucket full of bags full of shells, sand, mud and weed-washings to occupy evenings for the next month!

Many thanks to Ian and to Jan for arranging the trip and for sharing their knowledge and enthusiasm with us. As I had hoped, I learned more about identification and about the practical side of collecting and looking at molluscs; more unexpected and exciting was the range of species that I had never seen as shells on the beach, lurking only thirty feet down and half a mile away. I'm hooked – when's the next trip?



Caribbean Molluscs Beached on a Cheshire Shore

Nora McMillan, Dept. of Zoology, Liverpool Museum

Cheshire's scrap of sea-coast does not offer much scope for beach-combers but Mr Frank Tyson has, over the past few years, gathered interesting things along the coast from Meols to the island of Hilbre. In March 1990, after the great gales of that spring, he found beached between Hoylake and West Kirby a piece of grey plastic bearing two complete shells of *Chama macerophylla* (Gmelin) and one of *C. sarda* Reeve, and a single valve of the tree oyster *Isognomon radiatus* (Anton). All three specimens of *Chama* had the valves still connected when found.

The *Chama sarda* specimen measured 20 x 18 mm, the two *C. macerophylla* were respectively 17 x 12 mm and 8 x 8 mm.

All three species are common in the Caribbean. Mr Tyson has presented the specimens to Liverpool Museum.

Tenby Revisited – or Everyone Loves a Puffin!

Jan Light

Godalming, Surrey

Anyone who has had occasion to leaf through the pages of *Journal of Conchology* and such works as Jeffreys' *British Conchology*, will be aware that Tenby is a location which has a long history of conchological involvement. Philip Gosse in 1856 devoted a whole book to the narrative of a six-week holiday he took at Tenby. Norman Fowler, amongst others, was a frequent conchological visitor to the area. Despite this, however, the Society has never fielded a trip to Tenby. Therefore it was not before time that some 16 members assembled on 2nd July 1992 in the car park at Martin's Haven to catch the first ferry over to Skomer Island – the first destination of the four-day trip to the area.

It was wet and blustery and on landing we were confronted by a steep flight of steps to the assembly point, where we were duly briefed on what the island had to offer ornithologically. In fact, I had already been overwhelmed by the numbers of puffins as we entered North Haven harbour. As we stood half way up the cliff, large numbers of them could be seen rafting below, and pairs had watched us from burrow entrances a few feet away as we climbed to the vantage point. Puffins were to dominate and enliven my day – frame after frame was shot as the delightful birds stood their ground despite the wind's best attempts to blow them over the cliff and in spite of the eagerness of photographers to inch their way ever closer. With a couple of hours to kill before 'low tiding' could begin, there was no difficulty in filling the time with a walk around the island, members variously examining the non-marine molluscan fauna, birdwatching or hunting in vain for the wild flowers which had been adversely affected by an absence of rain for six weeks.

At the appointed time we gathered at the Warden's house to eat our lunch then we were guided down a precipitous cliff track to South Haven where we recorded molluscs on the receding tide.

A highlight of the site was the finding of a population of *Otina ovata* in the caves there. Once the technique had been acquired by various members it became the trendy activity of the whole trip. *Otina ovata* was located at all our marine sites by various members including Barry Colville, Christine Street and Shelagh Smith. When the tide had ebbed to its lowest extent we scrambled up the cliff and tipped over into North Haven and put together another creditable list of rocky shore molluscs.

On our return to the mainland late in the afternoon, Barry led an excursion to look for the rare landsnail, *Ponentina subvirescens*. An hour's search yielded a handful of specimens in the very particular habitat that Barry had described. Walking back along the cliff to the cars we were treated to the sight of a pair of ravens and a newly constructed nest only metres from the path and a close-up view of a fulmar on its nest.

Friday's destination was Caldey Island off Tenby. The day was wild and sailings from the harbour were postponed until 11 am. This afforded time to search for, and find in their hundreds, *Theba pisana* at its recorded location on the grassy cliff slopes at Tenby. Clearly the wet weather had caused the massive presence of snails on a small patch of ground.

Reaching Caldey Island just before midday, we again divided to reconnoitre the island before gathering for lunch and laying of plans. A deluge caught some of us unawares – at the moment the heavens opened Ann Colville was separated from her waterproofs by some 20 minutes! Fortunately it brightened up and enabled two groups to work shores on different sides of the island. A sandy shore work party led by Judith Nelson produced a list of bivalves from Priory Bay, including *Tellimya (Montacuta) ferruginosa* living commensally with *Echinocardium cordatum*.

The rocky shore at the west end, which includes a causeway to St Margaret's Island at low water, was worked by a second group. Tuition for some and backbreaking rolling of boulders for others produced a list which included the nudibranchs *Facelina auriculata*, *Polycera quadrilineata* and *Tritonia hombergii*. The shore was extensive and even a group of six could only scratch the surface. A considerable amount of shore

could not be examined owing to the constraints imposed by a last ferry time of 5 pm.

On Saturday four sites were visited. The first locality was the Fish Ponds at Bosherston – a series of lakes that run for about 1.5 km to the seashore, a sandy cove called Broadhaven. The lakes were full of luxuriant vegetation and lilies and yielded a good list of freshwater species including *Anodonta cygnea* and very large specimens of *Sphaerium corneum*. The scrub and grassland at Broadhaven yielded a snail fauna which included *Theba pisana* in large numbers and also *Helicella itala* and, interestingly, *Pomatias elegans* from the dunes. Shelagh Smith was a lone recorder on the seashore!

After lunch we drove to West Angle Bay on the west coast. We arrived an hour and a half before low water and a relatively small, intimate sandy bay with rock outcrops and low cliffs with caves and ledges at the margins looked promising, provided the tide went out sufficiently. This it did, and the extensive reefs, pools and overhangs provided interest and amusement for all, and another creditable list of molluscs from the shore. The nudibranchs *Goniodoris castanea*, a highly photogenic *Archidoris pseudoargus* and *Limacia clavigera* were pointed out to newcomers to the marine scene. Meanwhile strandliners were strung out along a promising stretch and finding tricky-to-identify molluscs such as Eulimids and a favourite of many collectors, *Epitonium clathrus*.

For an enthusiastic minority (Ian Killeen and Barry Colville) a quick site visit to Angle Bay yielded a completely different list of molluscs for the silty flats opposite the HEP station.

On Sunday the morning was devoted to a non-marine excursion to look in woodlands and a stream at Morfa near Pendine. Shells of *Acicula fusca* were found. Homeward journeys were begun by most of the group after lunch and a much reduced party visited the shore at Pendine in the afternoon.

Let it not be assumed that all there is to a Society field trip is conchology – although this is reason enough! Ornithology came a very close second and an important part of the daily proceedings was the evening meal. On the first evening we ate at the Lobster

Pot Inn at Marloes where some of our number shared a modestly priced '4-man lobster' and others sampled locally caught fish. In a convivial atmosphere we exchanged news, ideas and experiences of the day. On the last evening, sharing an all-American Fourth of July meal at an establishment called Madison's at Saundersfoot, the trip was voted a great success and thanks must go to Shelagh Smith and Ian Killeen for a joint effort in organising and leading the meeting.

POSTSCRIPT: A week after the trip I received a letter from Shelagh Smith containing her lists for the Tenby trip. She also enclosed a tube containing two small golden brown shells of *Paludinella litorina*. She found these while sorting her shells and sample from Broadhaven. This highly satisfactory find complements a record for the species from Caldy (sic) Island before 1913. (Williams-Vaughan in Marshall, *J. Conch.* 14: 67). Since *Paludinella* has been recorded living with *Otina ovata* recently in North Devon (Light, 1991, *Conchologists' Newsletter* No. 119 6: 433) it is not unreasonable to suppose that the two species may be living together at various sites in the Tenby area.



Hon. Treasurer – Change of Address

The new address for the Hon. Treasurer, Mr A. Seccombe, is:

Ilford
Essex

The Mystery of Egg-cases

Fred Pinn,

London

It is often hard enough to identify a shell, especially when it belongs to a variable species; but when it comes to egg-cases the situation is nigh hopeless. To start with, few shell books can be bothered with this aspect of Malacology. If, however, a more general publication including sea-shore life should present a few illustrations on this subject it will, at best, give the family, such as 'egg-case of *Natica*' or 'egg-case of *Conus*', but rarely the species.

This gap is probably due to the difficulty, firstly, of collecting the egg-cases and, secondly, watching their development in an aquarium to make sure that out of a certain egg-case came a certain species. It is hard to imagine that malacologists specialising in one family or another have not gone into these details, but the information obtained seems to be hidden in papers designed for the 'initiated' only. And yet the lay field-worker and beachcomber often comes across such finds but is at a loss to identify them. In desperation one has to resort to methods of deduction or induction and hopefully arrive at the correct answer. For instance:

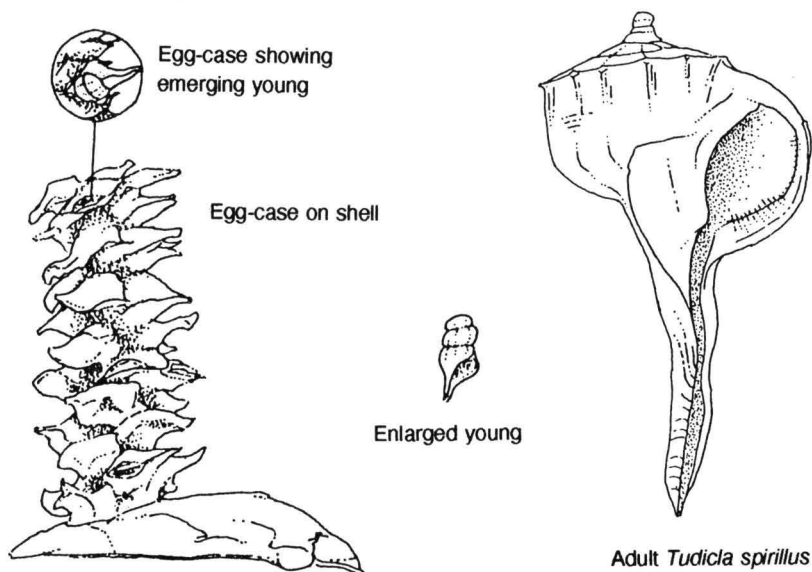
During my stay at Pondicherry (100 miles south of Madras in South India), in my survey of the local shell life, I walked several times a week along a three-mile beach, picking up what the tides had left behind, and also exploring the nets of the fishermen as they were brought out of the boats and emptied on the beach. There were several kinds of egg-cases but all empty or undeveloped except one which showed the minute shells on the verge of coming out of their chambers, one or two to each capsule. A closer inspection revealed an unusually large proto-conch which I took as a guide to identifying the species.

Now, on the assumption that these many egg-cases belong to a species common on this coast and which were brought up alive also in great numbers, we looked for the shells which at a later stage still showed a pronounced proto-conch as likely progenitors.

This reduced our choice to three: 1. *Turbinella pyrum*, 2. *Melo indica* and 3. *Tudicla spirillus*. Fortunately, the egg-cases of numbers 1 and 2 are known. Number 1, the sacred chank (*Turbinella pyrum*) has been illustrated. For number 2 (*Melo indica*) we have no illustration, though Hornell describes it clearly and it cannot be mistaken:

The eggs are deposited in an extraordinary egg mass – one of the strangest produces in these seas. It stands nearly a foot high, a great honeycomb-like glassy cylinder made up of some hundreds of clustered capsules, each nearly an inch in length. In form and sculpture it resembles a tall cylindrical pineapple, the capsules representing the bracts ... Once seen never forgotten.

And that left me fairly safely with number 3 (*Tudicla spirillus*). The following drawings (kindly made by Caroline Murray) show the egg-case, the young shells at the stage of immediate emergence and the adult *Tudicla*:



Several specimens have shown that the snail finds itself a dead shell with a hard, smooth surface to which it attaches its egg-case. The usual length of these egg-cases when brought out of the nets was 6 cm, the longest ever found was 8 cm.

Gooligans

R.D. Meikle, [REDACTED],
Minehead, Somerset [REDACTED]

In my childhood, some sixty years ago, one of my entertainments was to dig for a large shellfish which occurred in fair quantity on parts of the sandy shore of Cloghy Bay, Co. Down, at about mid-tide level. I remember that it was particularly plentiful where a small stream splayed out over the exposed beach. The animal was deeply buried in the sand, detectable only by a tell-tale circular, water-filled depression on the surface. If one dug vigorously enough the large elliptic-oblong shell was eventually uncovered. Sometimes, if I were sufficiently industrious, I would collect a bucketful of these creatures, which a local farmer would take away to boil as food for his poultry. He called them 'Gooligans', but this must have been a dialect name, for I have never found it in any dictionary, English or Irish. Dr R.Ll. Praeger (*The Way That I Went*, p. 112) remarks on the peculiarities of the Down and Antrim *patois*, 'characterized by the large element which it contains of Elizabethan English on the one hand, and translated Gaelic on the other'; he further says, 'The dialect and strong northern accent, indeed, are sometimes bewildering to the stranger.' This was certainly true at the period referred to. I never knew the correct name, scientific or popular, of the shellfish, but recently Dr Bernard Verdcourt has kindly looked into the matter at my request, and has suggested that it is most probably the Common Otter-shell, *Lutraria lutraria* (L.). From illustrated literature which he was good enough to send with his reply, I am satisfied that his suggestion is correct, and that the 'Gooligan' is indeed *Lutraria lutraria*. But has anyone ever come across the name 'Gooligan' or any variant of it elsewhere? If so, I should be interested to hear from them.

Book Review

The History of Malacology in Portugal

História da Malacologia em Portugal by Luis Pisani Burnay and Antonio A. Monteiro. *Publicações Ocasionais da Sociedade Portuguesa de Malacologia* No. 12, Lisboa 1988, 123 pp. ISSN 0870-7308.

This is an attractively produced soft-covered book of slightly larger than A5 format. Apart from a four-page summary in English, the book is written entirely in Portuguese which limits what I can say about the content. The first 90 pages are devoted to the history and development of the study of malacology in Portugal from the 16th century to the present day. There are numerous reproductions of old woodcuts, title pages from books and a few photographs. This is followed by six pages of notes and a bibliography.

The remainder of the book comprises a biographical and bibliographical dictionary of Portuguese malacologists. It is this section that is likely to be of particular use to members working on the fauna of Portugal. Black and white photographs of many of the malacologists listed are included in this section.

This work bears a striking similarity to Peter Dance's *History of shell collecting*, a commendation in itself and would appear to be similarly useful with regard to Portugal. Members interested in obtaining a copy should contact Tony Swann at Wheldon & Wesley, [REDACTED], Hitchin, Herts, [REDACTED] (Tel. [REDACTED]).

IJK

WANTED

I would like to obtain a copy, in good condition, of:

Yonge, *The Oyster*

Yonge and Thompson, *Living Marine Molluscs*.

A.D. Court, CChem, MRSC

[REDACTED],
Warley, W. Midlands [REDACTED]

Letters

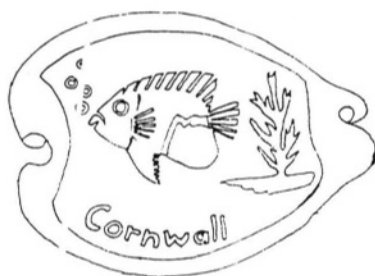
Dear Editor,

I would first of all like to congratulate you on the very high standard of production of the Newsletter. I must admit to being one of those who had my doubts, not about the standard of production, but about how you as editor were going to get over the problem of including the drawings produced by the various authors for their articles. As it is I have no fears. So far you have done a really excellent job, the result of which has been my receiving a fascinating letter from Peter Dance and another cowry cameo from Alton Towers in Derbyshire.

Alton Towers is, as I am sure everyone knows, a modern high tech theme park for those who like to become nervous wrecks but live through it! One of the retail outlets is a shell shop from which the example below comes, even though the park must be one of the furthest places from the sea in any direction in Britain. In fact, I believe this is the first cowry cameo that I have seen up till now that hasn't come from a seaside resort; other than those made for specific occasions, i.e. the 'Goodby cameo' etc.

Peter Dance sent a beautiful colour photograph of a cowry cameo, taken for his forthcoming Eyewitness Handbook *Shells*, on which a picture of a young lady had been carved. For a description and history I quote from Peter Dance's own letter: 'Clearly the motif is Madame Butterfly (and you can just make out a butterfly in the picture at the point towards which the lady is directing her gaze.) And you can also just make out a signature, illustrated (presumably in Japanese script) to the left below the engraving. So I suggest this cameo is of Japanese origin, dating from about 1910 or so and is a quality piece. The workmanship – it makes use of at least 5 layers – is remarkably fine.'





The last picture (above) is of the cameo I mentioned in the last Newsletter, Vol. 7, No. 122, September 1992, which I bought at the shell shop on Lands End in June 1991. I have included it because I recently heard that the whole private but to me scruffy and unnatural enterprise has gone bankrupt. I just hope that what was a beautiful and wild landscape might be returned to its original state for people to enjoy freely and naturally again – some hope, I'm sorry to have to say, but we will have to wait and see, you never know.

J.E. Llewellyn-Jones

Thundersley, Essex

1993 Subscriptions

Ordinary Members	£21.00
Family Members	£23.00
Institutional Members	£30.00
Student Members (remains unchanged)	£10.00

The special concession of £1.00 to Full and Family Members remains unchanged for those paying before March 31st (i.e. Full Members £20.00, Family Members £22.00).

Subscriptions are due on 1st January 1993. Please *pay promptly* and do not cause the Society to waste limited funds (your money) on expensive postage, etc., in sending out reminders, which should not be necessary! If you pay by standing order, do please ensure that your bank has the correct amount. We do ask for your co-operation over the payment of subscriptions.

All subscriptions to be paid in Sterling or equivalent to include costs of conversion charges. Cheques to be made payable to the Conchological Society of Great Britain and Ireland and not to individuals.

Hon. Treasurer's change of address – see page 111.

Dunoon meeting attracts local press



The Society's meeting on *Marine recording – the way forward* held in Dunoon, Argyll in May this year received attention from the local newspaper. A short article about the Conchological Society and the meeting appeared in the paper along with the photograph above. Pictured (from left to right) are Fred Woodward (President), Ian Killeen, Jan Light, John Davenport (Director of UMBS, Millport) and Peter Dow. The meeting was very successful and it is hoped that some of the 'proceedings' will appear in future Newsletters or Journals.

*Seasonal Greetings and Best Wishes
for the New Year to every reader
from the Newsletter Editor*

*Special thanks to the growing band of contributors
to the Newsletter. Your continuing support
is greatly appreciated.*

Centenary of the Malacological Society of London

In 1993 the Malacological Society of London celebrates its centenary year. As part of these celebrations it is organising a Centenary Symposium entitled:

Origin and Evolutionary Radiation of the Mollusca

This event will be held at the Natural History Museum on *14, 15 and 16 September 1993*. Sessions will be devoted to the origin of Mollusca and their relationships to other phyla, evolutionary radiations of the molluscan classes and more detailed studies of radiations at lower taxonomic levels. The proceedings of the Symposium will be published in a special volume and offers of papers are invited.

Accommodation has been arranged (B&B) at Imperial College, University of London, and a Centenary dinner will be held on Wednesday, 15 September.

The Symposium will be followed by a one-day meeting entitled **Evolution and Systematics of Patellidae**. This will also be held at the Natural History Museum on *17 September 1993*.

Offers of papers, requests for further details, accommodation bookings etc. should be addressed to: John Taylor, Department of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD. Tel. (071) 938 9359. Fax. (071) 938 8754.

Congress on Tropical Medicine, Cuba

During the next Congress on Tropical Medicine in October 1993 there will be a special session on *Medical Malacology and control of snail-transmitted diseases*. This session will group all the contributions related to this subject. All those interested in presenting a paper or a poster are invited to complete the application form, which should be sent together with the participation form to: Laboratorio de Malacologica IPK, Apartado 601, Ciudad de La Habana, 11300, Cuba.

Note: This event will be held in Cuba during the last week of October 1993. Further details are available from the Hon. Secretary, Mrs S. Davies, [REDACTED], Bristol, [REDACTED].

Diary of Meetings

The diary is presented in date order and includes both meetings of The Conchological Society of Great Britain and Ireland and meetings of molluscan interest run by other organisations.

1992

12 December, London: Conch. Soc. indoor meeting. 'Frilly and fragile – the family Coralliophylidae' by Dr Endre Sandor. The Natural History Museum at 14.30.

1993

6–7 January, Cambridge: Quarternary Research Association. Details from Dr Richard Preece, University Museum of Zoology, Downing Street, Cambridge, CB2 3EJ.

6–9 January, Cardiff: Populations Genetics Group. Details from Dr Roger Butlin, School of Pure and Applied Biology, University College, Cardiff, CF1 3TL.

16 January, London: Conch. Soc. indoor meeting. Due to problems beyond our control the speakers for the November 1992 and January 1993 meetings have had to be switched. Dr Martin Bell of the University of Wales, Lampeter will now be speaking on 'Snails through the ages – an archaeologist's perspective' in January. Dr Richard Preece's lecture on Pitcairn Island molluscs took place in November and we apologise to Members hoping to hear this in January.

20 February, London. Conch. Soc. indoor meeting. 'Sticking to rocks – an oyster's problem' by Dr Elizabeth Harper. Liz is currently based at the Department of Earth Sciences, University of Cambridge where she is working on cementation of bivalves. Her talk to the Society will be an overview of her research with particular reference to *Ostrea*. The Natural History Museum at 14.30.

20 March, London: Conch. Soc. AGM. Presidential Address by Mr Fred Woodward. The Natural History Museum at 14.30.

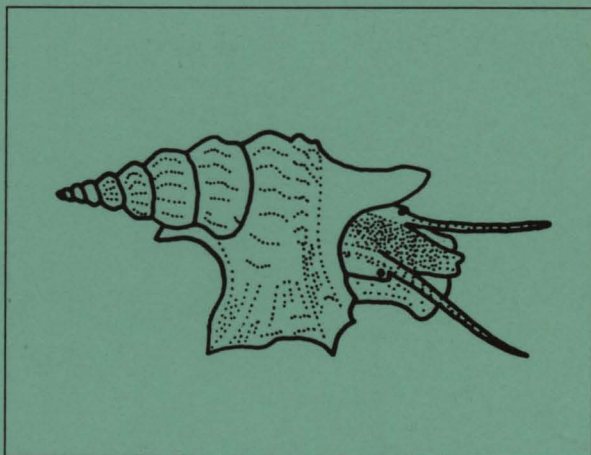
17 April, London: Conch. Soc. indoor meeting, 'Tropical Nudibranchs' by Dr Nathalie Yonow. The Natural History Museum at 14.30.

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Land Snails of Swiss Woodlands

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It was a hot, cloudless July day with a brilliant blue sky and not a breath of wind. At first sight the area could have been mixed woodland in a hilly part of Britain, dominated by beech and Norway spruce, with here and there the occasional oak, ash or sycamore. Beneath this canopy the shrub layer was made up of hazel with a sprinkling of elderberry, willow and cherry. The woodland rides were brightened by an abundance of flowers, all of which would have been perfectly at home in Britain: meadow vetchling, creeping buttercup, rosebay, meadowsweet, enchanter's nightshade, self-heal and many others. Meadow browns wandered by and a speckled wood rested in a shaft of sunlight on a curving leaf of pendulous sedge. From the distance came the crisp, clear notes of a chiffchaff, whilst close by blue and great tits feasted on shining cherries. Initially, very little leapt out to say that this was not home – woodland in the north of England. But this was Switzerland, the Vogelmalde, an area of woodland about ten kilometres west of Lucern, and the illusion of home was soon to be quite dispelled when my attention turned to land snails, mostly hiding from the heat beneath logs and stones.

Familiar species included *Carychium tridentatum*, *Discus rotundatus*, *Aegopinella pura*, *Oxychilus cellarius*, *Arianta arbustorum* and *Helix pomatia*. Also there were numerous fully grown *Arion ater*; not the expected black colour, however, but every one brown with dark head and tentacles. More unusual and exciting from an English point of view were the frequently encountered *Helicodonta obvolvata*, unmistakable with their tightly wound, sunken spires. Non-British species found included *Aegopinella nitens*, *Macrogastra ventricosa*, *Perforatella incarnata*, *Trichia villosa*, *Trichia edentula* and *Isognomostoma isognomostoma*.

Aegopinella nitens is very similar to *A. nitidula* and indeed it has been suggested that these may not be separate species. In *A. nitens* the last quarter whorl of the shell expands strongly and

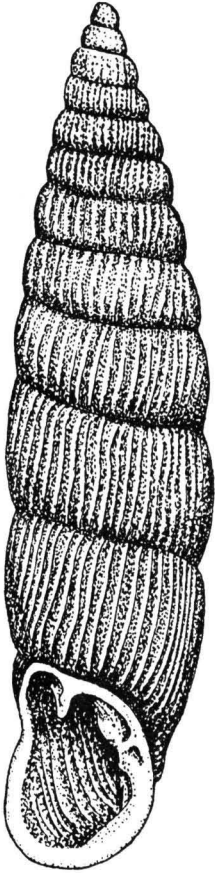


Fig. 1. *Macrogastrea ventricosa*
(17 x 4 mm)

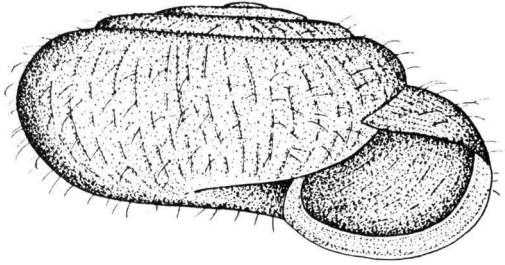


Fig. 2. *Trichia villosa* (8 x 14 mm)

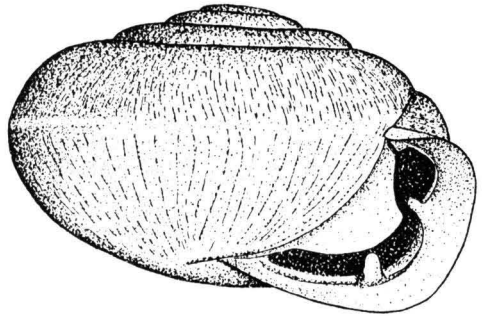


Fig 3 *Isognomostoma isognomostoma*
(6 x 9 mm). This is a drawing of an older
shell, from which the hairs have been
completely eroded. Fresh shells have long,
slightly curved hairs.

is somewhat flattened and downturned compared with that of *A. nitidula*. The shell of the former is also a slightly darker, more greenish brown in colour. *A. nitens* is more montane, the range of the two species being rather different, with *A. nitidula* not occurring in Switzerland. *Macrogastra ventricosa* is a member of the large clausiliid family. The size and proportion of *Cochlodina laminata*, it is recognisable as a member of the genus *Macrogastra* by the distinct transverse ribbing of the shell and broadly expanded shell mouth with only a very slight basal groove. At 18 mm long the shell is larger than that of *Macrogastra rolphii* (11 to 14 mm) and proportionately much narrower. *Perforatella incarnata* is superficially similar to *Trichia striolata*, but it has no close relatives occurring in Britain other than *P. rubiginosa* which is known only from a few sites in the south of England. The globular shell of *P. incarnata* is yellow-brown with a distinct sheen due to microsculpturing in the form of regular striations visible with a hand lens. Some other species of *Perforatella* are similarly sculptured but the detail is species specific. The two *Trichia* species encountered are quite different from one another. *T. villosa* is about the size of *T. striolata* but the shell has a much more flattened spire and is densely hairy. In contrast, the smaller *T. edentula* has a steeply conical spire and all adult individuals found were completely hairless. *Isognomostoma isognomostoma* has a shell mouth reminiscent of that of *Helicodonta obvoluta*, although the former has two distinct teeth, one palatal and one basal. *I. isognomostoma* has a low, conical spire unlike the striking sunken spire of *H. obvoluta*.

The fourteen species listed were noted on 20 July 1991 at an altitude of around 700 metres in the Vogelmalde area, about 0.5 square km of woodland in km square 656208 (Cartes Nationales de la Suisse). This was part of a much more extensive area of forest.

A further brief visit to the area on 22 July 1991 (square 656209, altitude about 580 metres) yielded three further species: *Vitrea diaphana*, *Boettgerilla pallens* and *Cepaea nemoralis*. At about 4 mm in diameter, *V. diaphana* is on average just a little larger than *V. crystallina* but is quite distinct in that the umbilicus is

completely closed. It is much more similar to *V. subrimata* which occurs in the north Pennines and also Switzerland, but this latter species is smaller and does have an umbilical opening, albeit minute. Confusion between the two species has led to uncertainty about their distribution in parts of Europe.

Time permitted brief investigation of a second site, about two kilometres to the north-west of the Vogelmald area. This was a narrow stretch of mixed woodland which runs along the south side of a canalised river near the small town of Malters, within km squares 657210 and 658210 at an altitude of approximately 480 metres. Unassuming at first sight, this proved to be an interesting area. A handsome male green lizard rustled hastily across the leaf litter, almost into the mouth of a gaping rucksack, realising its mistake just in the nick of time. The cores of countless spruce cones littered the ground, testimony to the presence of red squirrels in the branches above. Clad in dark, chocolate brown fur these continentals are very different from their much paler Scottish cousins, who sport their striking apricot tails at this time of year. Even a mole put in a brief, above-ground appearance. Two visits were made to this area, on 20 and 23 July 1991. The land snails recorded were *Arion ater* agg., *Aegopinella nitens*, *Limax marginatus*, *Macrogastra ventricosa*, *Cochlodina laminata*, *Helicodonta obvoluta*, *Isognomostoma isognomostoma*, *Arianta arbustorum*, *Cepaea nemoralis*, *C. hortensis* and *Helix pomatia*.

Of the above, the only three species not found in the Vogelmald area were *Limax marginatus*, *Cochlodina laminata* and *Cepaea hortensis*. On numerous occasions *Helix pomatia* was seen at rest on tree trunks, quite exposed and very conspicuous – most surprising behaviour. Again, all of the *Arion ater* seen were brown in colour. A carrion beetle, probably *Oiceptoma thoracica*, was found in a shell of *Cepaea nemoralis*, feeding on the remains of the snail.

Finally, mention might be made of records for other sites in Switzerland visited at the time. These include *Euomphalia strigella* in long grass by a canal in Engelberg on 19 July 1991 and also *Pyramidula rupestris*, *Arion ater* agg. and *Arianta arbustorum* in the Pfingstegg area, near Grindelwald, on 21 July

1991. Here, at and just above the tree line, flowers and butterflies abounded with land snails seemingly thin on the ground. On the same day, *Cepaea nemoralis* was noted, in a hedgerow, at Briens.□

Nonsuch Park, Surrey – A Survey

Nonsuch Park in Ewell, Surrey is Henry VIII's Little Park and the site of his once famous, but long since demolished, Nonsuch Palace. The park, now surrounded by suburban development of the 1930s, has remained since then an open space under the management of the Nonsuch Park Preservation Committee and, until some years after the war, was farmed. Adjacent to the park are Warren Farm and Cherry Orchard Farm which are no longer worked and whose futures are in question with threats of development. Results of a public enquiry are awaited.

A local pressure group, Nonsuch Watch, has been set up to protect as much of the open space as possible with its wildlife intact and to support use for informal recreation rather than organised sport – a golf course has been suggested for the area. Nonsuch Watch are gathering information on the flora and fauna of Nonsuch Park and adjacent open spaces, both at the present time and in the past. Do any members have mollusc or other records from Nonsuch? A multidisciplinary recording day is being set up for the first weekend of May 1993 when we hope to survey as much of the park as possible. Anyone interested in having details of the survey and taking part, please send a SAE to Dr June Chatfield, Anglefield, 44 Ashdell Road, Alton, Hampshire GU34 2TA. Anyone living in the vicinity of Ewell and interested in joining Nonsuch Watch and helping to protect the future of the park, please send a SAE to Miss Frances Wright, [REDACTED], Cheam, Surrey [REDACTED].

Collectors in East Africa

No. 18: E.C. Hore (1848–1912)

B. Verdcourt

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

Captain Edward Coode Hore, FRGS, born in Islington on 23 July 1848, was the first collector of two of Lake Tanganyika's most renowned endemics *Chytira*¹ *kirkii* (Smith) and *Tiphobia horei* Smith apart from many other interesting species. The Coode in his name hints at some original Cornish origin but I have not researched his parents' origins. Against his entry in the *Register of L.M.S. Missionaries* is the mention 'Ch.m., Mariner's Ch., Sydney', which means he was a church member of that Australian church. A single letter written from 29 Stepney Green on 8 June 1876 (presumed 6 but shaved from photocopy) when he was applying for a mission post is all I have found mentioning his early years. This begins 'I am seeking work in the Lord's service' and contains some information: 'I am a seaman', 'I have had more than eleven years of sea life serving in sailing ships in various trades, in every capacity from boy to chief officer and also some time as an officer in the Mail Service (P. & O. Co.). I have just resigned my position as Master of the Mission ? Cutter "Evangelist" and am a student of the East End Training Institute for Home and Foreign Missions', 'I long to be at work in the Mission field'. Whoever answered his letter arranged to see him on Tuesday, June 13th.

In 1877 he was appointed to the Lake Tanganyika Mission as scientific officer to a large expedition bound for the lake with the purpose of establishing a mission station including schools. He had special instructions to thoroughly survey the lake and study the ten tribes on the shores of the part chosen for the work. He planned to return to England after a preliminary assessment, marry his fiancée and take her back to the lake. He sailed for Zanzibar on 14 April 1877, arriving on 1 August (this seems an inordinate time since the Suez Canal had been open eight years; he must have stopped off somewhere – it could not take 3½ months).

He was determined to try wheeled transport and the journey from Saadani to Kirasa was carried out with bullock carts, but naturally all the beasts died due to tsetse flies, although he claimed that apart from that the system worked well! He remained at the Kirasa Mission until 29 May 1878 when he finally set off for the lake, arriving in Ujiji on 23 August. Saadani to Ujiji was according to Hore a total walking distance of 836 miles; it took him 86 days from Kirasa and he estimated the actual walking days for the whole journey as 50 which seems incredibly good going for a huge party of porters. He explored the southern part of the lake in 1880 between 17 March and 20 May in the *Calabash*. There are splendid maps in his RGS paper and in his wife's book (see later) taken from a survey by 'Mr Edward C. Hore Master Mariner'; they speak volumes for his efficiency. It may be material from this survey which is mentioned in Kirk's letter to Gunther mentioned in a recent Newsletter (Verdcourt, 1991). Smith (1881) mentions material presented to the British Museum by a brother John Coode Hore. Presumably Edward sent the material to his brother via Sir John Kirk whom he must have met when he arrived in Zanzibar and who very likely first encouraged Hore to collect in the lake.

He left Ujiji on 3 November 1880 and arrived in England on 23 February 1881, when he married Annie Boyle Gribbon at Bedford on 29 March. I know nothing of her save the L.M.S. Register entry for her husband which gives after her name 'Ch. M., Queen's St., Ch. Leeds (Thomas). During his stay in England he passed the examinations for the rank of Master Mariner and he also gave an evening lecture to the Royal Geographical Society on 28 November 1881 entitled, 'Lake Tanganyika' (Hore, 1882) – the written account gives much detail of his first journey and is accompanied by two excellent maps.

He sailed again for Africa on 17 May 1882 arriving at Ujiji on 23 February 1883. He had with him² sections of the lifeboat *The Morning Star* which was launched on the lake on 21 May 1883. He then proceeded to the south end of the lake in this craft in July to await the arrival of the sections of a steam vessel the *Good News* and to make arrangements for the reconstruction of the vessel.

The sections were conveyed from Quelimane in Mozambique up the Zambesi and across to Lake Tanganyika by a route which had been worked out some years previously.

The *Register of L.M.S. Missionaries* states that 'On June 11, 1884 Mrs. Hore left England and arrived at Zanzibar September 26th', but it is a good deal more complicated than that and I have been very confused trying to find out the details. When Hore sailed on 17 May, his wife and small son of only three months accompanied him to Zanzibar together with eight others and several hundred packages. On arrival Annie was suffering from sunstroke and it was considered prudent she should not proceed that year so she returned to England. It was next arranged that she should be met by her husband at Quelimane, so she went round the Cape and arrived there in July 1884. A native uprising against the Portuguese rendered this southern route impossible preventing him from reaching her in time and she returned to Durban. Telegrams were sent from Zanzibar and Hore himself managed to send a telegram from Mozambique assuring her that he was safe and would await the arrival of a steamer from Delagoa Bay where they met after two years.

It proved impractical to go directly inland so they ended up in Zanzibar again after all and went across by the old route. The account which stated that 'accompanied by her little son she arrived in Zanzibar on 26 September 1884 and made an initial unsuccessful attempt to reach her husband but later finally succeeded in joining him after a journey of 90 days from the coast after using the Saadani, Mpwapwa, Mgunda Mkali, Tabora, Urambo and Ujiji route' is in direct contradiction to the previous statement. The date is correct and the route but Hore was with her. Presumably she was the first white woman to travel this route. It had been known for perhaps centuries to Arab ivory traders and slave hunters (and perhaps their wives or they may always have been left behind in Muscat). It had originally been decided that her vehicle would be one of Carters' wicker bath-chairs with a broad double wheel adjustable as one or two wheels and further fitted with short poles for lifting the whole affair over difficult places like a palanquin. Her book with its fascinating title has a

delightful decorated cover showing her being carried in this contraption by two natives. I have never seen a copy of this book for sale and have only once seen a reference by another author and that was in the bibliography to chapter one of Alexander Allen's book on adventurous Victorian ladies (1980). This chapter concerns May French Sheldon who travelled in East Africa to Lake Chala and Kilimanjaro in 1891. Curiously, however, no reference is actually made to Annie Hore anywhere in this chapter. I suspect the missing mention has something to do with the mode of transport. May Sheldon had a most elaborate palanquin, a sort of waterwheel-shaped basket of great elegance, and presumably Allen meant to compare it with Annie's much simpler conveyance but somehow it got left out. Hore's obsession with wheels at a time when they were inappropriate caused him to announce that if all else failed he would 'take his wife to Ujiji in a wheelbarrow' but fortunately she was spared that indignity.

One intriguing mention on page 76 of Annie's book indirectly concerns molluscs. Before entering the Mukondokwa River valley (a continuation of the Wami, 37-38°E, from the Kideta River to the Mbuzimi River well before Mpwapwa) they came upon the station of the African International Association (about which I have found out nothing) then occupied by Monsieur Bloyet who, however, was not present. Acting on a cordial invitation given on a former visit they stayed there three days. This is most interesting since Capt. Bloyet collected snails and sent them to Bourguignat. I have never found out any details about him other than that he was a French Army officer.

They lived on Kavala Island for a year or so close to the western shore opposite Towa (Toa, Mtowa), the old original Albertville, not the later place now called Kalémié on what is now the Zaire side; this was a healthy spot, the lake winds keeping it free from malaria. At the end of 1885 they moved into a new house and found it most comfortable; Annie was happy but admitted she would have welcomed another English woman's conversation. She speaks quite highly of the tribal organisation in the lake area and says the people were civilised. They worked iron and copper, making tools and ornaments as well as weapons, made palm oil,

pottery, grass and cotton cloth, palm fibre, etc.; their dried fish was sent far inland and their dairy farm produced butter. The fishing fleet used 200 canoes at a time. Annie gave up trying to get a female nurse for her son and had to employ a 'nice respectable lad'. Even in 1949 I was surprised to find male servants doing jobs which in Europe would always have been done by a female servant. The reason why is difficult to understand; probably, since the female was the mainstay of the African economy she could not be spared whereas the drones could be put out to work – also females were subject to illicit liaisons with the many single white settlers and civil servants. It was a tradition which persisted although many families found that female staff worked much harder and more efficiently. Annie was clearly a most competent woman and took over the running of the station on several occasions when all the European males were away. It is a pity these pioneering women have been largely ignored by the writers describing the opening up of tropical Africa. Devotion to duty, of course, has never made very exciting reading!

The station curiously seems to have been on good terms with the notorious Tippu Tib, the enormously wealthy and wily old slaver who managed apparently to be a distinguished gentleman and a brutal gangster at the same time. He befriended many European travellers, having saved Livingstone from destitution and supplied Stanley with porters. It does appear strange he should have been so helpful to Christians bent on destroying slavery – it may just have been genuine concern for civilised travellers far from home, simple Arab hospitality in fact and also pleasure in different company for a change. The fact is, however, that Kirk more or less supported him because Tippu was virtually an agent of the Sultan of Zanzibar, so the helpful attitude could have been repayment for being left to slave without too much being said. One thing I feel certain of, he must have laughed at all these European explorers making such heavy weather of travelling and 'discovering things for the first time' which Arabs had mostly known about for very many years. He seemed to move effortlessly between Zanzibar, Ujiji and the Lualaba River and heaven knows where else. There is no doubt his support was

extraordinarily valuable and at times crucial.

Annie reported, 'We also keep up a friendly intercourse with the Roman Catholic Algerian Missionaries (this was certainly not the case in some places!) one of whom M. Vyneh sent us some plants and some European potatoes, a basket of cresses (a very hygienic salad). This kind good man sent for Jack when so ill a bottle of Malaga wine grown in their vineyard in Algeria and when here he aroused us all early one morning – at sunrise – by playing beautifully on the bugle "God Save The Queen". I was much pleased and touched at hearing such a home tune in the very heart of Africa.' (From a letter to E.W., Sept. 1886.)

She makes a most interesting reference to a Lt. Gleeurp of the Swedish Army passing through in September 1886. He was crossing Africa having come from Stanley Falls on the Congo where he had been stationed for a year. This was a bare two years after Stanley had established the Congo Free State. Tourism had almost started. It must have been a tremendous event to have had a white visitor. Can any Swedish reader enlighten us about him?

During Hore's second period of duty a great deal went on at the Mission. A little church was built and Rev. Lea, a good linguist, arrived to act as teacher; there was also a dispensary for which a doctor was requested from England. Hore noted that several workers duly arrived amidst the disturbances arising from the process of annexation of their share of tropical Africa by the Germans. One comment of interest to botanists is Hore's report that Mr Alexander Carson, B.Sc. left England in March 1886 to become engineer at Kavala to complete the engine for the *Good News*. Riveting of the boiler took two months for two workers, and was made more difficult in that the dome part originally riveted in England had been separated at Nyasa for easier transport. Carson made collections of plants which are at Kew and at the time contained many undescribed species. Carson took over the boys' school but returned home after five years of service; he does not appear to have collected any molluscs. He returned to Africa in 1892 and worked at Fwambo Mission some 50 miles south of the lake and died there in 1896 of blackwater fever. The Hores seem to have been pretty robust people. The entry in the

missionary register immediately before Hore is an A.W. Dodgshun who was also appointed to the Lake Tanyanyika Mission at about the same time; he died eight days after arriving in Ujiji and many others died shortly after arrival.

In February 1886 Annie had written home to E.W. (the preface of her book is signed E.W. of Retford), 'still in good health', but unfortunately that was soon to change. Their son Jack had smallpox in March 1887 and at about the same time Annie herself became seriously ill. This must all have been very trying and worrying. It is certain that thoughts of leaving must have started passing through Hore's mind. In 1888 he himself became ill and they left Kavala Island, arriving in England on 26 October 1888. All connection with Africa was then severed but he read a paper on the Lake in September 1889 to the geographical section of the British Association meeting in Newcastle and presumably he wrote his book during that year.

He sailed for Australia in 1890 having been 'appointed a Deputation to visit the Australian Colonies' and arrived in Melbourne on 25 April. His wife may have accompanied him but is more likely to have stayed at home. He resigned from the London Missionary Society on 31 December 1890 and visited the USA before returning to England arriving on 15 April 1891. On 20 December 1892 he was appointed by the Board a special Deputation for a year, and on 28 November 1893 was appointed first officer of the steamer *John Williams* of which he took command in September 1894. All the islands with mission stations associated with Australia were visited including New Guinea according to his own narrative (Hore, 1895). He appears to have collected nothing which came into scientific hands, which makes me feel all the more certain his collections in Lake Tanganyika were made at special request and not out of personal interest. He resigned command of the boat in February 1900 and they settled in Tasmania. The first entry of his name in Wise's *Tasmania Post Office Directory* is given in 1903 listing him as a fruit grower at Lymington South (located on Port Cygnet, an arm of the Huon River south of Hobart). He was still there in 1905 but had moved to Claude Street, New Town, Hobart in 1908 where he

lived until his death. From 1909 to 1912 he was principal of Sloyd School in Lord's Road (now Carr Street). He died in hospital at Hobart in April 1912 in his 64th year. Annie lived for another ten years and died in Sydney on 28 April 1922 aged 69.

Hore's book describing his years in Africa was published in 1892; the title page depicts '*Typhobia' horei* (upside down) and there is a magnificent frontispiece showing Ujiji (rather different from my remembrance of it as it was over 70 years later). References to natural history in this book are sparse but he was certainly very much aware of the subject. On page 150 his main reference to it occurs: 'So indeed is this great and wide sea the lake itself, wherein are things creeping innumerable, both small and great beasts'. His only mention of molluscs is on the same page: 'Floating on the surface, hidden amongst the rocks I collected about thirty different kinds of shell fish from the mussel five inches to the tiny univalve like a pin's head. Many of them are quite new to science the most unique (sic!) being the *Typhobia horei* described as "perhaps the most remarkable freshwater shell ever discovered." ' Annie also made some observations on the bigger creatures, mentioning the immense numbers of hippos and crocodiles in the lake. This prolific abundance has now long gone of course. I had the great privilege of seeing the last remnants of it in the mid-1950s while travelling in a boat on the River Nile near Pachwach in the half-light of the dawn; there were literally thousands of hippos and every sandbank disgorged over a score of crocodiles as we passed, and even two white rhinos came down to the water's edge. I know exactly what she meant.

I am grateful to several people for helping me with sources of information I could not have discovered without assistance: to Mrs Janet Williams, Information Services, The United Society for the Propagation of the Gospel, for referring me to the Council for World Mission, successors to the London Missionary Society, and to the Rev. J. Hardyman, lately archivist of that body for providing me with a copy of the entry in Sibree's *The Register of L.M.S. Missionaries*; to Mrs R.E. Seton, Archivist, School of Oriental and African Studies, for looking at the Candidate's papers for Hore and sending me a photocopy of the sole letter she

found, to Mr G.W. Lewis for allowing me to use his Fellow's card to gain access to the R.G.S. Library and finally to Tony Marshal, Manager, Tasmaniana Services, State Library of Tasmania, who searched for information about Hore in Tasmanian sources.

List of mollusca described from material collected by Capt. E.C. Hore in Lake Tanganyika

Achatina (Limicolaria) martensiana Smith, 1880b. Tanzania, near Lake Tanganyika³ (BM 80.3.5.54–57, 90.5.16.3, red spot on lectotype⁴). *Limicolaria martensiana* (Smith).

Achatina (Limicolaria) rectistrigata Smith, 1880b. Tanzania, near Lake Tanganyika (BM 80.3.5.65–68, syntypes). *Limicolaria martensiana martensiana* (Smith).

Baizea leucoraphe Ancey⁵, 1890. Tanzania, Lake Tanganyika (type possibly in Paris). *Bridouxia leucoraphe* (Ancey).

Bulimus (Buliminus) pychaxis Smith, 1880b. Tanzania, near Lake Tanganyika (BM 80.3.5.59,60 lectotype with red spot). *Pseudoglossula pychaxis* (Smith).

Burtonia livingstoniana Bgt., 1883. Tanzania, Lake Tanganyika, based on Smith, 1880: 350, pl. 31, fig. 8a (BM, 80.12.22.13,14 in the general collection might be the basis for this figure). *Pseudospatha tanganicensis* (Smith).

Ennea lata Smith, 1880b. Tanzania, near Lake Tanganyika (BM 80.3.5.62–64, lectotype with red spot). *Gonaxis* ('*Marconia*') *lata* (Smith).

Ennea ujijiensis Smith, 1880b. Tanzania, near Lake Tanganyika (BM 80.3.5.61, holotype). *Ptychotrema ujijiense* (Smith).

Limnotrochus kirkii Smith, 1880a. Tanzania, Lake Tanganyika (BM 80.12.21.11–14, syntypes). *Chytra kirkii* (Smith) (altered to *kirki* by Smith, 1881).

Melania (Sermyla) admirabilis Smith, 1880a. Tanzania, Lake Tanganyika (BM 80.12.21.1–4, lectotype with red spot.) *Melanoides admirabilis* (Smith).

Melania (—?) *horei* Smith, 1880a. Tanzania, Lake Tanganyika (BM 80.12.21.5–10, lectotype with red spot.) *Reymondia horei* (Smith).

Neothauma tanganyicense Smith, 1880b. Tanzania, Lake Tanganyika (BM 80.3.5.4–7 & 80.12.20, 43, 44, syntypes). Unchanged.

Reymondia minor Smith, 1889. Tanzania, Lake Tanganyika (BM 89.6.23.47–51, syntypes). *Reymondia pyramidalis* Bgt.

Reymondia tanganyicensis Smith, 1889. Tanzania, Lake Tanganyika (BM 89.6.23.57–51, syntypes). Unchanged.

Rissoa (Horea) ponsonbyi Smith, 1889. Tanzania, Lake Tanganyika (BM 89.6.23.42–46, lectotype with red spot). *Bridouxia ponsonbyi* (Smith).

Spatha tanganyicensis Smith, 1880b. Tanzania, Lake Tanganyika (BM 80.3.5.48–53, lectotype and only adult with red spot and no. 48). *Pseudospatha tanganyikensis* (Smith).

Streptostele horei Smith, 1890. Tanzania, near Lake Tanganyika (BM 90.5.16.6, holotype). Unchanged (subg. *Raffraya*).

Streptostele simplex Smith, 1890. Tanzania, near Lake Tanganyika (BM 90.5.16.17,18, red spot on lectotype). Unchanged.

Tiphobia horei Smith, 1880b. Tanzania, near Lake Tanganyika (BM 80.3.5.1–3 & 80.12.20. 73, syntypes). Unchanged.

Tiphobia (Paramelania) nassa (Woodward) var. *grandis* Smith, 1881b. (BM 80.12.22.6–8, syntypes). *Lavigeria grandis* (Smith).

?*Turbonilla terebriformis* Smith, 1890. Tanzania, Lake Tanganyika (BM 90.5.16.9 adult and juvenile, former lectotype.) *Anceya terebriformis* (Smith).

Unio tanganyikensis Smith 1880b. Tanzania, Lake Tanganyika (BM 80.3.5.39–47, lectotype red spot). *Grandidiera burtoni* (Woodward).

There are several eponyms not based on his own material. *Horea* Bgt., 1888 was erected for *Melania tanganyikensis* Smith apparently a wrongly localised Lake Nyasa species. *Rissoa* subg. *Horea* Smith, 1889 (*Horea* (Smith) G.B. Sowerby, 1894) was renamed *Lechaptosia* by Ancey in 1894. *Unio horei* Smith, 1880 (now *Caelatura horei* (Smith)).

Footnotes

¹Unfortunately misspelt in my checklist (1983) as *Chyta* through a retyping error. Oddly Pilsbry and Bequaert (1927) complain about Moore (the original author) misspelling the name; some other names he spelt a different way almost every time he mentioned them.

²One account refers to Capt. Hore returning to Ujiji taking with him sections of steam launch which were conveyed overland by a caravan of several hundred porters but there appears to be confusion here.

³Because Smith mentioned Ujiji in the title and Hore was stationed at Ujiji it

is generally assumed the type localities of shells described in 1880b are all that town or thereabouts, but Hore went all over the lake and I suspect they might have come from many other places on the lake.

⁴Connolly has often selected shells in various syntype series preserved in the BM(NH) and marked them with a red spot. The selected shells are often designated 'holotypes' on the labels and the type cards, but of course a holotype can only be chosen by the original describer at the time of description; this was not done in earlier days except fortuitously when only one specimen was involved. Connolly's specimens with red spots are suggested lectotypes but have not been formally published, but his choices are usually obvious and suitable. Only where a series is a mixture of species does the matter become critical.

⁵It is not known how Ancey obtained Hore material, perhaps from Ponsonby; clearly it did not all go to the BM, who purchased at least some of it.

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Freshwater Snails

A one-day course to be held on Saturday, 8 May 1993 at Bushy Leaze Hospital School, Alton, Hampshire from 10.00 am to 4.00 pm for the University of Southampton. Tutor is Dr June Chatfield, course fee £12.00 (concessionary £6.00). This course introduces the way of life of freshwater molluscs, both snails and mussels, and gives instruction in their identification to species. Visits will be made to the River Wey in Alton, which arises on the chalk and has a good range of species. *Bookings and details from Department of Adult Education, University of Southampton, Southampton SO9 5NH, Tel. (0703) 593469.*

Biographical Notes

1. Raymond F. Cumberland, 1917–1984

Fred R. Woodward

Art Gallery and Museum, Kelvingrove, Glasgow G3 8AG

The announcement of the death of R.F. Cumberland to the 979th Ordinary Meeting of the Conchological Society in December 1984 was probably of little consequence to the majority of members present, but to a few it heralded the loss of one who contributed much to molluscan research. A devoted family man, of strong principles, Ray was born in Birmingham in 1917 and lived there until retiring to New Milton, Hampshire in 1978. His only absence from his native city was for a period of seven years as a result of the 1939–45 World War. He gained employment in the family furniture manufacture and retailing business but left in 1963 to enter the Civil Service where he remained until his retirement in 1978.

I first became associated with Ray in the early 1950s when I worked on the Archer shell collections belonging to the Birmingham Natural History and Philosophical Society and which are now in the Birmingham City Museum. At that time Ray was an active member of the Zoological and Microscopical Sections of the Society. He had a special interest in spiders, and was elected to the Society Council upon the death of Stuart E. Wace Carlier [1899–1962] for the sessions 1963–64 and 1964–65. His other chief interests were ornithology and photography. The latter, which afforded him considerable pleasure and enjoyment, provided the medium by which he was to provide a major contribution to the study of the Mollusca. During a period commencing in 1961 he provided over 150 photographs which were used to illustrate scientific publications as well as at least twice that number for record and identification purposes, all at his own expense. Owing to his unassuming disposition he was reticent in claiming his due reward, continually refusing joint authorship, his sole molluscan publication being undertaken with myself in 1962. This was because, regardless of the considerable time spent



Raymond F. Cumberland, 1917–1984

in producing photographs and microscopical preparations, Ray felt his contributions were negligible.

However, recognition of his considerable input to the scientific study of mollusca, both fossil and recent, was partly accorded by the naming of *Unio cumberlandi* Woodward 1965 after him. This fossil species occurs in the Tertiary deposits of the Isle of Wight and fittingly the holotype is preserved in the collections of Birmingham Museum and Art Gallery in his native city.

Ray joined the Conchological Society in 1962, his wife Olive joining in 1974, both being frequently present at meetings. In his retirement years he spent many happy hours walking in the New Forest with his wife, sons Nigel and Adrian and daughter Sandra, his enjoyment being greatly enhanced by endeavouring to identify the spiders collected by his companions.

The above summarises his contributions to science but gives little insight into a gentle man of unassuming nature, with strong family ties and a firm friend to those few of us who were honoured and privileged to know him.

His sole publication on mollusca is:

Cumberland, R.F. and Woodward, F.R., 1962. A note on *Anodonta anatina* var. *striata* P.T. Deakin. *Proc. Bgham nat. Hist. phil. Soc.* **20** (1): 52–57.

Although publishing little himself his contributions to the study of mollusca were considerable. His outstanding photographs have illustrated the publications of others as evidenced by the following works:

Pain, T. and Woodward, F.R., 1962. The African freshwater Bivalve, *Aspatharia* (*Spathopsis*) *rubens* (Lamarck), its synonymy and distribution. *J. Conch., Lond.*, **25**: 73–78, Pl. 5.

Pain, T., 1963. *Pila letourneauxi* (Bourguignat), its synonymy and distribution. *J. Conch., Lond.*, **25**: 152–159, Pl. 9.

Woodward, F.R., 1963. A tentative list of the known specimens of *Cypraea* (*Erosaria*) *guttata* Gmelin. *J. Conch.* **25** (5): 180–183, Pl. 11.

Crowley, T.E., 1964. *Aspatharia* (*Spathopsis*) *bourguignati* (Bourguignat). *J. Conch., Lond.*, **25**: 263–265, Pl. 18.

Crowley, T.E. and Pain, T., 1964. Supplementary notes on the genus *Limicolariopsis* D'Ailly (Mollusca – Achatinidae). *Rev. Zool. Bot. Afr.*, **69**: 189–194, figs. 7 and 8 on plate ?.

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- Woodward, F.R., 1964.** On *Unio kendalli* Jackson, with descriptions of three new species of Jurassic Unionacea. *J. Conch.* **25** (6): 235–329, Pls. 1–4.
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- Woodward, F.R., 1965.** The morphology of *Hyriopsis myersianus* (Lea, 1856) and *Pseudoparveysia johnseni* Gen. nov. sp. nov. (Unionidae, Bivalvia). *Vidensk. Meddr. dansk naturh. Foren. Bd.* **128**: 205–219, Pls. 31–35.
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- Pain, T. and Woodward, F.R., 1968.** A Monograph of the African Bivalves of the genera *Brazzaea* Bourguignat, *Mweruella* Haas, *Prisodontopsis* Tomlin and *Pseudospatha* Simpson. *Rev. Zool. Bot. Afr.* **77** (1–2): 190–220, Pls. 3–4.
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Shell Collection for Sale

Over 400 specimens including cones, cowries, olives, plus many others, with some rarer specimens. For details telephone [REDACTED] or [REDACTED]

An August Holiday on the Isle of Colonsay

Christine Street

Ilford, Essex

We have just spent an enjoyable family holiday, as usual on an island. This year (1992) it was Colonsay in the lower Inner Hebrides. The wild flowers at this time are a picture and the scenery is beautiful. My happiness was complete when sharp-eyed Stephen found a violet snail, *Janthina janthina*, on the tide line with lots of bits of sea-weed. It was a miracle that it had survived intact as the outer shore there is a mass of rocks. It was possibly still alive or only just dead because when I examined it that evening there was still mucus in the aperture, and after removing the purple body my fingers were stained for several days by its purple juice. The beach on which it was found is called Coite Creige on the 25,000 O.S. map. It is at grid reference NR 346919 in the south-west of the island.

At the same time on that beach were strange transparent bits of what I thought must be plastic packaging, oval with a diagonal wing sticking up. Then we found some with blue slime on the underside. From a book I found these to be 'By-the-wind-sailors', *Velella*, 2-3 inches long and related to the 'Portuguese man-of-war'. We have never seen them before. Then we also discovered them on Kiloran beach in the north-west and on Balnahard beach in the north-east but nowhere else. They were obviously in these locations because of the Gulf Stream.

When I got home I looked up *Janthina* in Forbes & Hanley (Vol. II, p. 552). Mr Crouch remarks: 'The usual season is from July to November when the wind is rough or long between W. and S. under which circumstances several floating animals as *Physalia*, *Velella* with the *Ianthinae* are driven on our coast from the Atlantic sometimes in considerable numbers.' Gordon Beedham, in *Identification of the British Mollusca*, also says of *Janthina*: 'it feeds on a similarly drifting coelenterate (siphonophore) - *Velella*.' It was interesting to discover the two

new findings were connected in this way and shows how Colonsay, though so much farther north, is still under the influence of the Gulf Stream, being south of the shield of the Outer Hebrides. Also the type of strong winds referred to by Mr Crouch had indeed occurred earlier that week.

From the same beach on the which snail had been found we watched half a dozen choughs doing aerobatics against the encircling hills. Apparently Colonsay is one of the few areas in which choughs are breeding and increasing. In the same area an otter was spotted playing on the rocks. They are thriving there and can be seen in many places – though not, regrettably, by us. Altogether Colonsay is a fascinating area for those interested in all facets of natural history (with the possibility of violet snails for shell collectors!). I shall look more carefully in future if *Verella* is around. □

Slugs and Snails in the Eastern Pyrenees

A course will take place from 1–7 August 1993 at the Reserve Naturelle de Nohèdes in the eastern Pyrenees of France. This is an area of diverse geology, a good range of habitats and including snowfields only exposed in summer. The week consists of field excursions followed by laboratory sessions for identification and an ecological assessment of the habitat. Students, group leaders, teachers and anyone interested in zoology is welcome. The week is organised by Sylvain Clanziz, Director of the Centre for Interdisciplinary Littoral Studies and founder member of L'Association Française pour L'Etude des Mollusques Continentaux. The cost of the course is 2,150 French Francs which includes accommodation but not transport. Our French member Colette Stevanovitch, who is fluent in English, will be helping with this meeting.

Further details and bookings to M. Guy Pinault, [REDACTED] Nohèdes, France. Tel. [REDACTED]

From the Marine Recorder

Jan Light

Godalming, Surrey

Dear Members

Following on from my article in *Newsletter* No. 123 (December 1992) summarising the findings of my questionnaire, this is the first of what I intend to be occasional communications, written at no set interval but, rather, produced when I have something to say!

The Annual Workshop took place at Godalming at the end of November. This year we continued the new format of including non-marine and marine molluscs and this idea certainly seems to be popular. Fourteen members actually attended although two others were booked and there were two further possibles up to the last minute. Although I have always been very happy to host the meeting because it has been expedient to avoid having to book premises, etc., we probably need more space, possibly with some kind of lab facility. (At the moment we all sit round a very large round table and bring our microscopes, etc.!) The Programme Secretary (Ian Killeen) is contemplating the possibility of having another venue next year and is open to offers and suggestions. The cost of the Workshop has remained at £5 since its inception and the profit goes to the Society. It is not unreasonable to suggest an increase next year and this would hopefully generate enough to enable us to hire a suitable venue, possibly a field centre or similar.

As with all our Workshops the time went far too quickly and some members stayed until 7 pm to finish identifications of specimens from the year's collecting. The morning session was devoted to the identification of *Pisidium* species with samples of mixed species to sort and work on. In the afternoon a practical session on small species found in weedwashings was followed by another on British cockles which provoked much discussion (and disagreement) but was generally voted extremely useful. A problem area concerns the *Parvicardium* species which often turn up in dredged or shell sand samples as single valves. Whilst live

records are what we really need for the Recording Scheme, a cluster of dead records can give clues to likely distributions. Also, it is a good discipline to work on the dead material, provided it is not so worn that the sculpture has been effaced. Comparing specimens and arguing over them is useful because it forces close scrutiny and helps to identify the constancy of certain intraspecific features and the variability of others, while also allowing interspecific comparisons to be made. Usually it is the small species that cause most problems but the two large *Acanthocardia* species, *A. tuberculata* and *A. echinata* can also be difficult, especially when the tubercles/spines have been worn down. Some participants spent some time arguing over specimens of these two species, although how much closer we came to the truth is debatable. We also looked briefly at *Ensis arcuatus* and *E. americanus* pinpointing the diagnostic differences between the two species.

As a last minute extra, were able to look at live specimens of *Hygromia cinctella*. This is a Mediterranean species which has long been known as an introduction to the Paignton area of South Devon. In recent years it has been spreading such that it is now found in many places in the West Country and occasionally turns up as an adventive elsewhere. I believe that there has been a Surrey record from B. Verdcourt in the past. Last autumn I found a couple of specimens of a keeled '*Trichia*' and thought no more about it. Then this year I found two more on an orchid I had brought into the house, showed them to Ian Killeen who identified them, and have subsequently found them to be common in the garden. How they got there is a mystery but it may be connected with my 'theft' of cuttings from my sister-in-law's garden at the house in Porlock which we have used for Society field meetings in the past! Before leaving the subject, I must thank Ian Killeen for taking on the preparation of this year's Workshop.

What a pity that the Workshop did not take place a couple of weeks later! At the beginning of December, feeling the need for a long walk and some sea air, I took myself to Camber Sands. This is the place where I participated in my first Conchological Society

field meeting and therefore holds special memories. The preceding week was characterised by high winds and torrential rain and I anticipated finding some fresh molluscan material washed in, and with the tides on neap cycle there were likely to be some strandlines to walk. Arriving early morning the tide was ebbing and the uppermost strandline was characterised by numerous tests of *Echinocardium cordatum*. Numbering in the hundreds, over 90% fell within a size range around 3 cm, presumably subadult and representing a particular age class. I guessed this might either represent the products of a particularly good year for the species, or possibly they live at a particular level in the sand and/or a critical distance offshore and had been disturbed by the storms.

The same might be said for the species *Acanthocardia echinata*. Again, a certain age class/size range dominated the specimens that had been washed in, again curiously showing an average size of 2.5 to 3 cm. Unlike the heart urchins which were distributed along the shore fairly uniformly, the cockles had been abandoned by the tide in clusters along a mid-shore strandline, nearly all in articulated condition and many containing traces of animal. In addition to the dominant size category, specimens of *Acanthocardia* were found spanning a range from < 1 cm to adults > 5 cm, providing an excellent growth series for comparison. There was considerable variation across the size range in preservation of the spines and tubercles. Some of the dominant class lacked spines altogether whilst some of the adults showed near-perfect sculpture.

Lower on the shore drift-lines at the edge of shallow water channels running parallel to the shore were characterised by numerous tubes of *Lanice conchilega* and *Pectinaria koreni*, many of the latter containing live animals. These tubes were forming an efficient mesh to hold a large amount of freshly dead and moribund material. From these areas, I collected very fresh specimens of several species of tellins, razors, and necklace shells, in addition to *Philine aperta* and a dozen or so *Epitonium clathrum*, including two containing live animals which were kept in my aquarium and subsequently photographed. This latter

item represents a very satisfactory post-1990 live record for S14. In addition to the mollusc species, carapaces of the masked crab *Corystes cassivelaunus* were abundant. This species is widely distributed on sandy shores from low water spring tides to depths of 55m (Fish and Fish, 1989) and it is often found in large numbers on strandlines after storms.

From the composition of species found along the various strandlines and as suggested by some observations made above, it seems that the rough weather had been selective in its victims. Only one specimen of *Cultellus pellucidus* was found, although I have seen this species on strandlines at Camber in large numbers in the past. Similarly there have been other occasions when I have seen very few *Philine* whereas hundreds were present on this occasion. It is this chance element in strandlining which makes it a pastime of lasting pleasure.

Reference

Fish, J.D. and Fish, S., 1989. *A Student's Guide to the Seashore*. Unwin Hyman, London. □

Dog Whelk Survey

A survey of dog whelk populations (*Nucella lapillus*) has been set up in the British Isles by the Marine Conservation Society who invite help from naturalists. Their 4th report (1991) shows that the effects of TBT (tributyltin used in antifouling paints on boats) can be detected in the population structures of dog whelks, with the south-east of England, an area of high boating activity, the most affected. TBT inhibits reproduction of dog whelks, giving rise to an aging population, but some young have been seen now the TBT use is restricted. Survey work continues in 1992 and 1993 and volunteers are needed to collect data in the field. Dog whelks are easy to identify so this project offers plenty of scope for student work.

Further information on the survey and guidance on the collection of data and a field survey sheet is available from Ms Cait Loretto, [REDACTED], Ross-on-Wye, Herefordshire [REDACTED] Tel. [REDACTED]

Marine Molluscs Now Protected

Dennis R. Seaward

, Sherborne, Dorset

Schedule 5 of the Wildlife and Countryside Act, 1981 lists species of animals which are 'in danger of extinction in Great Britain or likely to become so unless conservation measures are taken.' The Act requires the list to be reviewed every five years.

As a result of the second quinquennial review, following recommendations by the Joint Nature Conservation Committee, the following marine molluscs were added to Schedule 5:

Thyasira gouldi

Paludinella littorina

Caecum armoricum

Tenellia adpersa

The protection afforded by Section 9 of the Act relates to the taking of specimens and to the disturbance of the animals, which should contribute to safeguarding their habitat.

Thyasira gouldi is a small bivalve known only in Britain from a few Scottish sea lochs. The other three, all Red Data Book species (Bratton, 1991), are known from only one or a very few British sites, and all three occur in the Fleet lagoon in Dorset.

Members should be aware that *it is now illegal to collect or disturb* any of these species without a licence from English Nature.

Reference

Bratton, J.H. (Ed.). 1991. *British Red Data Books: 3. Invertebrates other than insects*. JNCC, Peterborough. □

Introduced *Pomatias elegans* breeding in a non-calcareous habitat

Nora McMillan

Department of Zoology, Liverpool Museum

Pomatias elegans (Muller) is an obligatory calcicole (Boycott 1934; p. 29) and I know of no introduction which has 'taken'. Therefore when I encountered the following statement by the veteran conchologist Thomas Glover (1795–1887) it seemed worth noting. Glover was born in Blackburn but moved to Manchester about 1821 (Glover 1906; p. 368) where he spent the rest of his life. He wrote on 8 May 1840 to Thomas Batt Hall (1814–86) who was both botanist and conchologist: 'I brought a box full of them [*Cyclostoma elegans*] home from Kent a few years ago and located them in a corner of my garden – they are still there and breeding too.'

References

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- Glover, M.** 1906. Notes on the British land and freshwater shells collected by the late Mr Thomas Glover. *J. Conch. Lond.*, **11**: 368–72.

The Glover letter is quoted with permission of the Department of Botany, Liverpool Museum. □

New Broom Sweeps Snails?

Stella Maris Turk

, Cornwall

This title reads like a cryptic crossword, and the story seems as baffling as some of those mind-teasers... On 6 May 1992, Mrs Elizabeth Richards of Carn Marth, Redruth, Cornwall, noticed that the branches of a fine specimen Broom (*Cytisus praecox*) were bowed down. Close inspection showed that they were covered with dozens of mature *Helix aspersa* interspersed with a few *Cepaea nemoralis*, feeding on the flowers and the foliage. She was so interested – as well as being concerned for the health of the lovely shrub – that she counted them on that day and successive days, with the following results:

Date	Number of snails	Weight of snails	Weather conditions
6 May	137	1 lb 8 oz	Misty
7 May	119	1 lb	Misty
8 May	164	2 lb	Rain
9 May	68	8 oz	Misty
10 May	5	—	—

Each day the snails were placed in a plastic bag and carried to a local tip, so there was no question of the same specimens returning to the site.

The Broom is approximately 4 ft x 5 ft and grows about six feet from a Cornish hedge – i.e. a stone-faced earth bank, ideal for harbouring snails. *C. praecox* (which is a hybrid between *C. purgens* and *C. multiflora*) is said to have a very heavy and unpleasant scent; perhaps this is attractive to snails! I have certainly noticed that snails are partial to Broom foliage in our own garden, but I have never seen them in the numbers described on any shrub. Mrs Richards has written to a gardening periodical so, with the balance of an account in a conchological publication, we may learn of similar gardening experiences. □

Book Review

Gastropods of the Channel and Atlantic Ocean: Shells and Radulas

By Y. Finet, J. Wuest and K. Mareda. Published by Mostra Mondiale Malacologia, Via Adriatica Nord, 240 - Cupra Marittima (AP-Italy), Ancona, 1992. ISBN 88 86070-02. Price: Lire 35,000.

Another book about molluscs but with a difference. Within its 80 pages, 25 species (including one chiton!) are treated to a brief description of shell morphology with notes on habitat and diet. However, the principal feature of the book, and the authors' stated purpose, is to describe and illustrate the teeth and radulae of the most common and best-known species of gastropod living in the intertidal zone of the British and French coasts of the Channel. In this regard, despite the limitations of a small number of species, the book measures up to its task very well, with excellent SEM photographs for each species showing a general view of the radulae and larger views of different types of teeth.

In a general introduction this exclusively molluscan organ and its terminology are described in plain language, and seven of the types are described including simple line drawings highlighting differences in structure and composition. These differing radula structures are compared in relation to the varying feeding habits of the characteristic families. In the pages that follow, useful black and white photographs showing different angles of the shells of such species as *Gibbula*, *Littorina*, *Patella*, *Trivia* and *Lamellaria* accompany brief descriptions, although only four of the seven radulae types mentioned in the Introduction are featured in the book.

Although the opportunity to dissect molluscs and remove the radulae is not readily available to most amateur workers, it is nevertheless a useful reminder of a feature which can be diagnostic in identification when other morphological aspects, such as shell, or in the case of nudibranchs general external appearance, prove inconclusive. In this regard the book might well serve an educational purpose in opening the eyes of the

unsuspecting conchologist as well as providing a text for the formal student.

Unfortunately the book is marred by such errors as the legend letters representing named features in the diagrams that do not match the lettering appearing on diagrams themselves. One can only assume that this has occurred in the translation of the text from presumably Italian into English. This also results in grammatical peculiarities which render the style somewhat stilted and which could have been eradicated had the English text been vetted authoritatively and the proofs thoroughly checked. This apart, if you can grit your teeth over the textual inadequacies, this is a useful and enlightening handbook.

JL

Life on the Solent Shore

A one-day course to be held on Saturday, 10 July 1993 from 10.00 am – 4.00 pm based at Gosport Museum, Hampshire with visits to the nearby shore for marine life.. Tutor is Dr June Chatfield for the University of Southampton. Course fee £12.00 (concessionary £6.00).

The muddy sand and bound shingle of the beaches of the Solent shore near Gosport support an interesting range of seaweeds and animals and more are found washed up on the strand line. The course helps with identification and discusses the animals and plants in the context of seashore ecology.

Bookings and details from: Department of Adult Education, University of Southampton, Southampton SO9 5NH.

Letters

Dear Editor,

Re: *Pachychilus* as food in Chiapas, Mexico (Newsletter 114, p. 320)

Without photographs of individual shells, I would not identify the species of *Pachychilus* sold in the markets of San Cristobal de las Casas. Nevertheless, it is probably *P. indiorum* (Morelet). This species is common in Chiapas and in Guatemala, and is a staple item of food. According to local sources the snails are usually used in preparation of stew or soup, with the addition of herbs and vegetables; or the bodies are chopped and combined with sauce in a ceviche. I cannot attest to the taste of the latter, but in February 1988, in Textila Gutierrez I ordered the soup in a restaurant and found it excellent. Like escargot, the snails themselves have little taste, and the end product is savoury according to the spices and herbs used in seasoning.

The name *indiorum* (of the Indians) was given by Arthur Morelet (1849) as indication of the importance of the species to the indigenous population at Palenque, Chiapas, where he encountered the species during his expedition of 1847; the type locality is given as 'H. rivulos circa ruinas Palenqueanas':

The ruins of Palenque, during the fine season, are resorted to as a place of enjoyment by the fashionables of Santo Domingo, who establish themselves there, with their families, to the great damage of the monuments, which bear many sad traces of their sojourn. They suspend their hammocks under the shade of the majestic trees, and swing in them indolently, listening to the murmur of the streams, and regaling themselves meanwhile with the shell-fish which are found here in great abundance. It is a species of *melanie*, in taste resembling our periwinkles. The Indians consider them very dainty morsels, and always lay in a store of them whenever an opportunity offers. I have often admiringly watched their dexterity in extracting the mollusc from his testaceous covering. While walking along they strike two of them together with such precision and force, that in spite of the hardness of their shells the ends of both are broken, and their contents extracted and swallowed

without a moment's loss of time. The shell of the *melanie* makes excellent lime, which is the only kind used in the vicinity. It is probable that it entered largely into the composition of the stucco used for the edifices of the ancient city.' (Morelet, 1871, pp. 107-8.)

References

- Morelet, P.A.**, 1849. *Testacean novissima insulae Cubanae et Americae centralis*, Pt. 1: J.-B. Baillière, Paris, pp. 1-31.
- Morelet, P.A.**, 1857. *Voyage dans l'Amérique Centrale, l'île de Cuba, et le Yucatan*: Gide et J. Baudry, Paris, 2 vols. Vol. 1, pp. 1-337; Vol 2, pp. 1-323.
- Morelet, P.A.**, 1871. *Travels in Central America, including accounts of some regions unexplored since the Conquest. Compiled and translated from notes of Chevalier Arthur Morelet by Mrs Frank Leslie*. Holt & Williams, New York, 430 pp. [This is a translation of the parts of Morelet's French original that deal with his mainland travels, the Cuban episodes being omitted.]

D.W. Taylor

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Applications published in the *Bulletin of Zoological Nomenclature*

The following applications were published on 17 December 1992 in Vol. 49, Part 4 of the *Bulletin of Zoological Nomenclature*. Comment or advice on these Applications is invited for publication in the *Bulletin*, and should be sent to the Executive Secretary, ICZN, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, UK.

Case 2833 *Tortaxis* Pilsbry, 1906 and *Allopeas* Baker, 1935 (Mollusca, Gastropoda): proposed conservation by the designation of a neotype for *Achatina erecta* Benson, 1842.

Fred Naggs, *Department of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD, UK.*

Abstract. The purpose of this application is to conserve the usage of the subulinid land snail generic names *Tortaxis* Pilsbry, 1906 and *Allopeas* Baker, 1935, and that of the specific name of *Achatina erecta* Benson, 1842. When establishing *Tortaxis* Pilsbry designated *Achatina erecta* as the type species but he was accepting a misinterpretation of this species and in fact dealing with *Spiraxis mandarinus* Pfeiffer, 1855 (originally included as a nominal species but since synonymized with '*A. erecta*'). The syntypes of *Achatina erecta* Benson are specimens of *Bulimus gracilis* Hutton, 1834, the type species of *Allopeas*. It is proposed that usage be maintained by designating a neotype for *A. erecta* in the established sense.

Case 2845 *Taningia danae* Joubin, 1931 (Mollusca, Cephalopoda): proposed precedence over *Taningia persica* (Naef, 1923)

Michael Vecchione, *National Marine Fisheries Service, Systematics Laboratory, National Museum of Natural History, Washington, DC 20560, USA.*

Clyde F.E. Roper, *Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560, USA.*

Abstract. The purpose of this application is to conserve the usage of the specific name of *Taningia danae* Joubin, 1931, a cosmopolitan large deep-sea squid which is a major food of sperm whales. A small paralarval specimen originally named as *Octopodoteuthis persica* Naef, 1923 certainly belongs to *Taningia* and probably to the only recognised species, *T. danae*; the name *persica* never has been used as valid. □

Diary of Meetings

The diary is presented in date order and includes both meetings of the Conchological Society of Great Britain and Ireland and meetings of molluscan interest run by other organisations. Fuller details of Conch. Soc. field meetings are given on page 159.

20 March, London: Conch. Soc. AGM. Presidential Address, 'Observations on South American anodontiform freshwater mussels' by Mr Fred Woodward. The Natural History Museum at 14.30.

3 April, East Oxfordshire: Conch. Soc. field meeting led by Jan Light [REDACTED].

17 April, London: Conch. Soc. indoor meeting, 'Tropical phyllidiid sea slugs' by Dr Nathalie Yonow of Swansea University. The Natural History Museum at 14.30. After graduating in marine biology from Swansea, Nathalie worked with the late Tom Thompson on the nudibranchs of the Red Sea and Ceylon. Her PhD was based on research into *Actaeon tornatilis*. She is continuing with work on Red Sea and Indian Ocean opisthobranchs and is currently revising the family Phyllidiidae using both recent and old collections.

8 May, Petworth, Sussex: Conch. Soc. field meeting led by Martin Willing [REDACTED].

8 May, Alton, Hants: 'Freshwater Snails', a day course led by June Chatfield. Details on page 137 of this newsletter.

15 May, London: Joint meeting of Conch Soc. and Malac. Soc. to celebrate the latter's centenary. See insert in this newsletter for details.

29-30 May, Flatford Mill. An introductory course on non-marine mollusca organised by FSC and led by Ian Killeen. Details from the Warden, Flatford Mill Field Centre, East Bergholt, Essex.

5-6 June, Westmorland: Conch. Soc. field meeting led by Barry Colville [REDACTED].

26 June, Avon Levels: Conch. Soc. field meeting led by Tony Smith [REDACTED].

10 July, Wicken Fen, Cambs: Conch. Soc. field meeting led by Richard Preece [REDACTED].

10 July, Gosport, Hants: 'Life on the Solent shore', a one-day course led by June Chatfield. Details on page 153 of this newsletter.

24 July, Poole Bay, Dorset: Conch. Soc. field meeting led by Ian Killeen [REDACTED] and Jenny Mallinson [REDACTED].

1-7 August, Eastern Pyrenees: A course on the slugs and snails of the region led by Sylvain Clanziz. Details on page 144 of this newsletter.

18-22 August, Oban, Scotland: Conch. Soc. field meeting led by Shelagh Smith [REDACTED].

3-4 September, Helsinki, Finland: Colloquium of the European Invertebrate Survey 'Threatened Species and Bioindicators at the Pan-European Level.' Details from Ilmari Valovirta, Finnish Museum of Natural History, PO Box 17, SF-00014 University of Helsinki, Finland.

14-16 September, London: Malac. Soc. Centenary Symposium entitled 'Origin and Evolutionary Radiation of the Mollusca.' Details from John Taylor, Dept. of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD.

17 September, London: Malac. Soc. meeting entitled 'Evolution and Systematics of Patellidae'. Details from John Taylor (see above). □

Membership Lists

The Society plans to publish a new membership list this year. For such a publication to be as useful as possible it is essential that the information it contains is correct. Therefore if any of your details in the current membership list are incorrect or have changed in some way since its publication in 1990, would you please let the Hon. Secretary know immediately. It is particularly important that any changes of address are notified as soon as they occur to ensure publications are sent to the correct address.

Hon. Secretary: Mrs S. Davies, [REDACTED], Bristol
[REDACTED]

Field Meetings 1992

Hon. Programme Secretary:

Ian Killeen

Felixstowe, Suffolk

Tel.

Important

Please remember to inform the leader if you are attending a field meeting.

Saturday, 3 April. EAST OXFORDSHIRE

Leader: Jan Light. (Tel.)

This meeting offers an opportunity to combine fossil collecting with modern land snail recording. The first site is a working chalk pit on the Chilterns at Chinnor. Woodeaton Quarry, c. 15 miles further west along the M40, has clean exposures of Jurassic shales and limestone. Both these sites have a diverse fossil fauna. Members are reminded that quarries are potentially dangerous places and that you enter entirely at your own risk! Appropriate clothing and footwear should be worn plus a hard hat if you have one. The final site is Sydlings Copse, a BEBONT reserve which has a rich snail fauna including *Acicula fusca* and *Azeca goodalli*.

Meet at Princes Risborough railway station (SP780030) at 10.30 and remember to inform the leader if you are going.

Saturday, 8 May. PETWORTH, WEST SUSSEX

Leader: Martin Willing (Tel.)

The first locality will be a woodland near to Petworth from where *Phenacolimax major* is known. We will then move on to the wetlands in the western Rother Valley to look for *Vertigo moulinsiana*, *V. substriata*, *V. antivertigo*, etc. If there is sufficient time it may also be possible to visit downland sites for *Acicula fusca*, *Helicodonta obvoluta*. The leader is hoping to arrange a 'rustic pub supper' at the end of the meeting; therefore members interested in participating should give Martin at least one week's notice.

Meet at Pulborough Station (Grid Ref. TQ043186) at 10.30.

Friday to Sunday, 4-6 June, WESTMORLAND.

Leader: Barry Colville (Tel. [REDACTED])

All members hoping to attend this meeting should contact the leader (address: [REDACTED], Ambleside, Cumbria [REDACTED]). They will be sent an itinerary, list of accommodation in the area, meeting places, etc.

On Friday, sites near Penrith will be examined. Saturday we will visit Tarn Moor (site for *Vertigo geyeri*), Sunbiggin Tarn and woodlands near Crosby Garrett. On Sunday, localities in the area for *Vitrea subrimata* will be included.

Saturday, 26 June, AVON LEVELS

Leader: Tony Smith (Tel. [REDACTED])

An opportunity to examine a number of rich aquatic sites plus an end of afternoon visit to a local shore:

1. Walton Moor NR (Grid Ref. ST432726). A live *Marstoniopsis sholtzi* has been reported from this site.
2. Biddle Street, Yatton (ST426653). Ditches and a gravel pond. *Pisidium pseudosphaerium* and *Hygromia cinctella* have been found recently.
3. Kingston Seymour (ST401669). More than a mile from the sea *Cochlicella acuta* has been found on the banks of a ditch. The aquatic molluscs may well include brackish water species.
4. Sand Bay (Car Park ST330659) at c. 1700. The shore at Sand Bay is west facing, gently shelving, sandy and muddy. There are rocky promontories at both ends of bay. The marine records are very incomplete in this area.

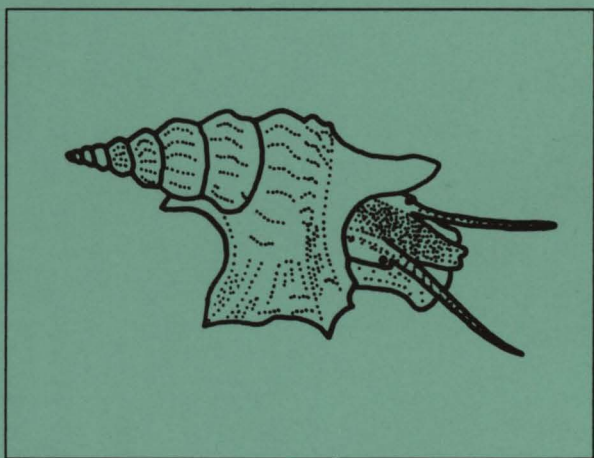
Meet at the M5 Gordano Services, Junction 19 (ST508755) at 10.45. Members who may travel by train to Bristol should arrange transport with Tony Smith.

The Conchologists' Newsletter

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The Molluscan Fauna Associated with Maerl

Julia Nunn

Marine Biology Station, Queen's University Belfast

Maerl is a free-living, twig-like, calcareous seaweed, which is a deep pink when alive. It is usually found as a thin living layer over dead maerl gravel, occurring from the lower shore to depths of about 20m. This depth limit is due to its requirement for adequate light for photosynthesis. Dead maerl can be washed up on the shore in large quantities to form white 'coral strands'. Living maerl can be found on a wide range of substrates, from gravel and coarse sand to a few sites with soft mud.

Maerl beds are locally common in areas of moderate current (to remove silt), principally around the west coasts of Scotland and Ireland, but also elsewhere, e.g. Cornwall where there is an extensive bed in the Fal estuary, and off the north-east coast of Ireland (Gubbay, 1988). They form a fragile and easily disturbed habitat (e.g. commercial extraction, increase in turbidity) for a rich assemblage of invertebrates. The general diversity and abundance of species is outstanding and includes fauna rarely encountered elsewhere.

There are numerous advantages of maerl as a habitat for marine species:

1. It provides a surface to which other seaweeds can attach, e.g. *Plocamium cartilagineum*. Other organisms, e.g. *Aplysia punctata* and rissoids, then feed on these seaweeds.
2. It can be grazed itself by organisms such as *Tectura virginea*.
3. The algal film and detritus can also be grazed by e.g. *Jujubinus montagui*.
4. It provides attachment sites for animals which in turn are food for molluscs, e.g. *Antedon bifida*, hydroids, bryozoans.
5. The infauna in maerl beds includes many bivalves, e.g. *Mya truncata*, *Dosinia exoleta*.
6. Its loose structure provides shelter e.g. for small gastropods.

During 1986–92, while recording mollusca from areas around Scotland, Northern Ireland and Eire, I was able to study sites where maerl was present (Figure 1, Table 1). The three species of maerl found in the British Isles were present in the areas studied: *Phymatalithon calcareum* (Castleward Bay, Caol Scotnish), *Lithothamnion corallioides* (Castleward Bay, Tra Coirealach) and, at its southern limit, a few pieces of *Lithothamnion glaciale* at a site (Mahee Roads) in Strangford Lough, seven miles from Castleward Bay. The majority of these sites (1, 4–9) were sublittoral and subject most of the time to moderate current. In general, the number of molluscan species found on any single dive is lower than on a shore, rarely exceeding 20 live species. It is therefore interesting to note that 27 or more living molluscan species were recorded from four of the dive sites (Table 2).

A total of 123 live species of mollusca have been found by the author in maerl beds from Scotland, Northern Ireland and Eire (Table 3), with a further 24 found as shells only. However, the majority of these species probably reflect the nature of the substratum on which the maerl lies. The richest sites (Castleward Bay, Second Narrows, Tra Coirealach, Island Roy with 40+ live species) lie on coarse sand/gravel with boulders. Iolla Bheag was siltier, with coarse sand and bedrock outcrops. At the sites north of Crannoge Point and south of Dundooan Rocks in Mulroy Bay the maerl lay on gravel. The lack of richness at these sites compared with the shore sites in Mulroy Bay is probably due to the greater diversity of the littoral habitat. Caol Scotnish in Loch Sween was a poor site – the maerl lay on a soft silty bottom, which is normally species poor. Port an Eorna was also a poor site but here the substratum was coarse sand, which does not fit with the above ideas. However, the area dived was close to a small harbour, which may have impacted on the site, and it was not in an area of current. The majority of the maerl was dead (95%) which suggests that the habitat was not favourable to marine life. The general area here, however, can be richer in living species (S.M. Smith, pers. comm.).

Which, then, of the species listed in Table 3 is truly associated

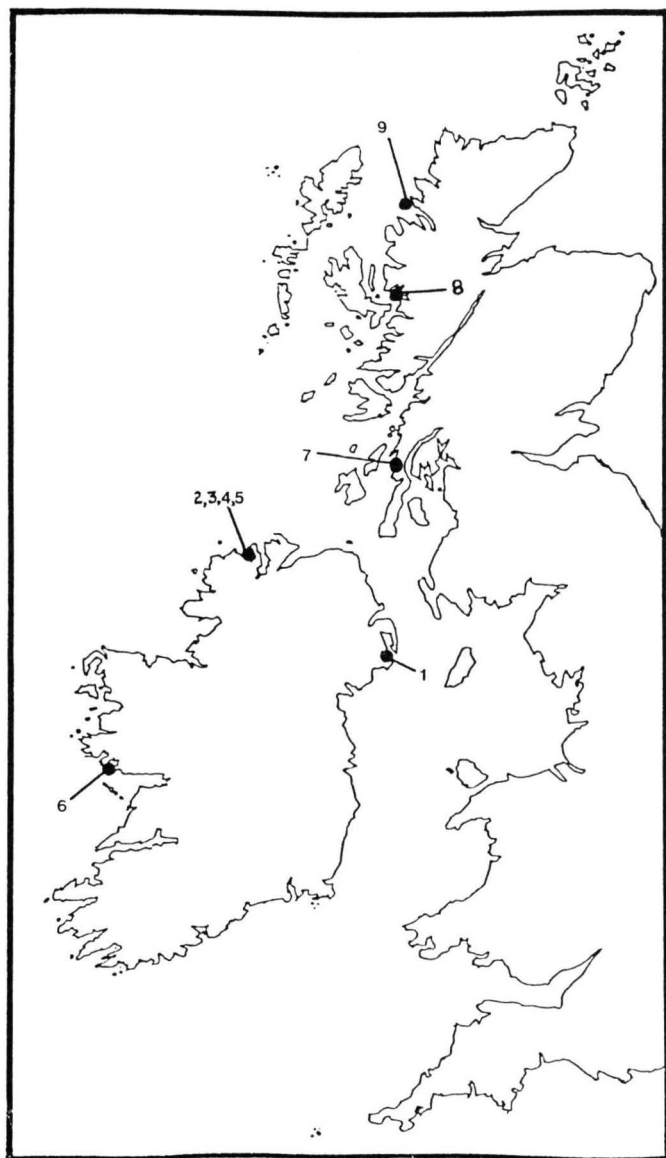


Figure 1. Location of maerl sites investigated by author

Table 1: Sites investigated by author

No.	Site	Latitude	Longitude	Date	Type	Depth
1	Castleward Bay, Strangford Lough	54 22.75'N	05 33.80'W	30.4.90	dredge	3-9m
				12.5.90	dive	10-16m
		54 22.71'N	05 33.65'W	16.9.89	dive	12-15m
2	Island Roy, Co. Donegal	55 11.85'N	07 47.00'W	19.3.92	shore	
3	Second Narrows, Co. Donegal	55 11.50'N	07 45.65'W	2.8.92	shore	
4	S. of Dundooan Rocks, Co. Donegal	55 12.70'N	07 48.30'W	14.4.91	dive	20m
5	N. of Crannoge Point, Co. Donegal	55 12.48'N	07 48.40'W	10.5.92	dive	10-14m
6	Tra Coirealach, Co. Galway	53 14.95'N	09 37.85'W	13.7.86	dive	0-7m
				11.7.88	dive	0-6m
				12.7.89	dive	0-8m
7	Caol Scotnish, Loch Sween	56 01.60'N	05 35.80'W	30.6.90	dive	0-5m
8	Port an Eorna, Scotland	57 37.80'N	05 20.50'W	16.4.90	dive	0-5m
9	Iolla Bheag, Outer Loch Broom	57 58.40'N	05 19.60'W	5.10.88	dive	23m

**Table 2: Number of molluscan species
found at each site**

Site	live	dead	total	% live maerl (estimated)*
Castleward Bay	51	26	78	80
Second Narrows	55	5	60	80
Tra Coirealach	47	9	56	50
Island Roy	40	6	46	20
Iolla Bheag	32	10	42	80
N. of Crannoge Point	27	15	42	80
S. of Dundooan Rocks	16	5	21	80
Caol Scotnish	13	4	17	70
Port an Eorna	10	4	14	5

*% live maerl is estimated in relation to the presence of dead maerl, not % cover by living maerl.

with maerl? Only four species are present at eight out of the nine sites (*Tectura virginea*, *Gibbula cineraria*, *Rissoa interrupta*, *Modiolarca tumida*). Of these, only *Tectura virginea* can be considered to be associated with maerl, as the others are ubiquitous to the lower shore and sublittoral environments. *T. virginea* is found most commonly on pink encrusting *Lithothamnion* spp. on the lower shore in semi-exposed sites or areas of current. Other species found with maerl (with number of sites) were *Hinia incrassata* (7), *Rissoa parva* (7), *Tricolia pullus* (6), *Hiatella arctica* (6), *Lepidochitona cinereus* (6), *Onoba semicostata* (6) and *Heteranomia squamula* (5). All of these species are common in other habitats not associated with maerl. The bivalves *Tapes rhomboides*, *Lucinoma borealis*, *Dosinia exoleta* and *Mya truncata* were also often found, but most often as dead shells. Of the rarer species, only *Turbonilla rufescens* may be associated with maerl. It has been recorded alive from Iolla Bheag (Nunn, 1990) and from Mulroy Bay (but not the sites discussed herein) close to offshore maerl beds.

Therefore it appears that there is no particular large assemblage of molluscan species which is specifically associated with maerl. Rather, the richness and diversity of the molluscan fauna in this habitat (123+ live species!) depends on the substratum, current and other conditions, with individual molluscs opportunistically taking advantage of the ready availability of attached food and shelter which maerl provides.

Acknowledgements

My grateful thanks go to the following: Graham Day, Dolphins Sub-Aqua Club, Marine Conservation Society for diving support; Christine Maggs for identification of the species of maerl; Shelagh Smith and John Baxter for identification of the more difficult molluscan species.

References

- Gubbay, S., 1988. A coastal directory for marine nature conservation. Marine Conservation Society.
- Nunn, J.D., 1990. The molluscan fauna of Loch Broom and Little Loch Broom. *Conchologists' Newsletter* 113: 276-279.

**Table 3: Molluscan species present with maerl
(with site number)**

Species only known as dead shells from sites with maerl have not been listed.

<i>Leptochiton asellus</i> 1,3,4	<i>Ischnochiton albus</i> 1
<i>Callochiton septemvalvis</i> 4,5,6	<i>Lepidochiton cinereus</i> 1,2,3,4,6,8
<i>Tonicella rubra</i> 1,3,9	<i>Tonicella marmorea</i> 1,9
<i>Acanthochiton crinitus</i> 3,5	<i>Emarginula fissura</i> 1(d),9
<i>Diodora graeca</i> 1(d), 3,5	<i>Tectura virginea</i> 1,2,3,4,5,6,7,9
<i>Tectura testudinalis</i> 1,8	<i>Patella vulgata</i> 1(d),3
<i>Helcion pellucidum</i> 1,2(d),3,6	<i>Margarites helycinus</i> 1
<i>Jujubinus montagui</i> 1(d),6	<i>Gibbula cineraria</i> 1,2,3,4,5,6,7,8
<i>Gibbula tumida</i> 1,5,6,9	<i>Gibbula magus</i> 2,3,6,8,9
<i>Gibbula umbilicalis</i> 3	<i>Calliostoma zizyphinum</i> 1,3,5,9
<i>Tricolia pullus</i> 1,2,4,5,6,8	<i>Bittium reticulatum</i> 1(d),5(d),6,7,8(d)
<i>Lacuna pallidula</i> 3,5,6	<i>Lacuna parva</i> 1
<i>Lacuna vineta</i> 1(d),3,4,5(d),6,8,9	<i>Littorina littorea</i> 2,3,6(d),8
<i>Littorina obtusata</i> 3	<i>Littorina mariae</i> 2,3
<i>Littorina saxatilis</i> 1,3,6	<i>Skeneopsis planorbis</i> 1(d),2,3,6
<i>Eatonina fulgida</i> 2,3,6	<i>Rissoa interrupta</i> 1,2,3,4,5,6,8,9
<i>Rissoa lilacina</i> subsp. <i>rufilabrum</i> 2,6	<i>Rissoa parva</i> 1,2,3,4,5,6,9
<i>Alvania beanii</i> 5(d),6,9	<i>Alvania punctura</i> 1(d),2(d),5(d),6,7,9
<i>Cingula trifasciata</i> 3	<i>Onoba semicostata</i> 1,2,3,4,5,6
<i>Pusillina inconspicua</i> 6	<i>Pusillina sarsi</i> 3
<i>Caecum glabrum</i> 6	<i>Trivia arctica</i> 2,3,6
<i>Trivia monacha</i> 1,2,3(d)	<i>Polinices montagui</i> 9
<i>Polinices polianus</i> 5,6,9(d)	<i>Cerithiopsis tubercularis</i> 2
<i>Marshallia adversa</i> 2	<i>Vitreolina philippi</i> 5,9
<i>Epitonium clathratulum</i> 4	<i>Nucella lapillus</i> 1(d),3
<i>Ocenebra erinacea</i> 2(d),3,9(d)	<i>Hinia reticulata</i> 5(d),6
<i>Buccinum undatum</i> 1,2,3(d),8	<i>Mangelia coarctata</i> 1
<i>Hinia incrassata</i> 1,2,3,4,5,6,9	<i>Rissoella diaphana</i> 2,3
<i>Raphitoma linearis</i> 1(d),9	<i>Omalogyra atomus</i> 1,2,3,6,7
<i>Rissoella opalina</i> 2,3	<i>Odostomia turrita</i> 3,6
<i>Ammonicerina rota</i> 3	<i>Chrysallida decussata</i> 6
<i>Odostomia unidentata</i> 6	<i>Turbonilla rufescens</i> 9
<i>Chrysallida obtusa</i> 9	<i>Aplysia punctata</i> 4,5
<i>Retusa truncatula</i> 2(d),3,4(d),5(d),9(d)	<i>Berthella plumula</i> 3
<i>Elysis viridis</i> 2,3,6	<i>Dendronotus frondosus</i> 1
<i>Lomanotus marmoratus</i> 9	<i>Onchidoris muricata</i> 9
<i>Doto fragilis</i> 9	<i>Archidoris pseudoargus</i> 2
<i>Polycera quadrilineata</i> 1	<i>Janolus cristatus</i> 1
<i>Discodoris planata</i> 2	<i>Coryphella pedata</i> 1
<i>Coryphella lineata</i> 1	<i>Embletonia pulchra</i> 9
<i>Cuthona concinna</i> 1	<i>Aeolidia papillosa</i> 2,3
<i>Eubranchius farrani</i> 6	<i>Arca tetragona</i> 3,5
<i>Nucula nucleus</i> 1(d),9	<i>Modiolus barbatus</i> 6
<i>Mytilus edulis</i> 3,5,6	<i>Crenella decussata</i> 1
<i>Modiolula phaseolina</i> 3,4	<i>Musculus discors</i> 1,2,3,4,5
<i>Modiolarca tumida</i> 1,3,4,6,7,9	<i>Chlamys varia</i> 1,2,3
<i>Limaria hians</i> 3	<i>Aequipecten opercularis</i> 1,7,8(d),9
<i>Pecten maximus</i> 1,2,9	<i>Anomia ehippium</i> 1,2,3,6(d)
<i>Palliolum tigrinum</i> 1,5(d)	

<i>Pododesmus patelliformis</i> 3	<i>Pododesmus squamula</i> 1,2,5,7,9
<i>Lucinoma borealis</i> 1(d),3,5,7(d),8(d),9(d)	<i>Kellia suborbicularis</i> 1(d),3
<i>Lasaea adansonii</i> 3	<i>Mysella bidentata</i> 1,2,3,5,7
<i>Parvicardium exiguum</i> 2,3(d),6,7,9	<i>Parvicardium ovale</i> 3,5
<i>Parvicardium scabrum</i> 1	<i>Spisula elliptica</i> 1,6
<i>Spisula solida</i> 1	<i>Ensis arcuatus</i> 1,2(d),9(d)
<i>Gari tellinella</i> 1,6	<i>Abra alba</i> 7
<i>Circomphalus casina</i> 1,2(d),6(d)	<i>Gouldia minima</i> 6
<i>Timoclea ovata</i> 1,3(d),6,9	<i>Clausinella fasciata</i> 1,6
<i>Venerupis senegalensis</i> 1,2,3,6	<i>Tapes rhomboides</i> 1,4(d),5(d),6,9(d)
<i>Turtonia minuta</i> 3,5(d)	<i>Dosinia exoleta</i> 1(d),4,5,6,7(d),8(d)
<i>Corbula gibba</i> 1(d),5(d),7	<i>Mya truncata</i> 1,2(d),7(d),8,9(d)
<i>Thracia villosiuscula</i> 9	<i>Hiattella arctica</i> 1,2,3,5,6,7,9 □

National Federation for Biological Recording A Cornish Venue for its 1993 Annual Meeting

The NFBR is the parent body for county Record Centres and for recording in general in the same way that the Royal Society for Nature Conservation is the umbrella organisation for conservation and the county wildlife trusts.

This year the NFBR AGM and Conference will be held in Cornwall, organised by the Institute of Cornish Studies' Cornish Biological Records Unit, on 29-30 July. Camborne School of Mines is kindly allowing the use of its lecture theatre, together with an area for displays and posters, and the Geological Museum as a venue for the buffet lunches. Additionally there will be an open day at the CBRU on the 28th and an outing to the Lizard Peninsula on 31 July to see some of the National Trust's responses to biological crises.

The theme of the indoor meetings will be 'Crises and Biological Recording'. The NFBR welcomes new members (subscription is £5.00 a year) and they will immediately be eligible to attend the AGM. The registration fee is £20 for the Conference (refundable in full if cancellation is received by 15 July). Full details are available from:

*The Director, Cornish Biological Records Unit,
Institute of Cornish Studies,
Trevithick Centre, Trevenon Road, Camborne,
Cornwall TR15 3PL (Tel. 0209 710424).*

Eleventh International Malacological Congress Siena, Italy

Julia Nunn

Marine Biology Station, Queens University Belfast

At the end of August, I was lucky enough to be able to attend the Eleventh International Malacological Congress, organised by Unitas Malacologica in Siena (30 August to 5 September). Three members of the Conchological Society – myself, Jan Light and Ian Killeen – intrepidly elected to travel ‘overland’ (rather than fly!). I can’t say I remember very much of the 24-hour journey there, except a succession of well-run motorway stop-offs (superb food in Switzerland), and sleeping for several hours in a carpark somewhere! We arrived in glorious sunny weather in Siena and, notwithstanding our tiredness, managed to explore Siena in search of our hotels. My own was just outside the city walls, necessitating a 20-minute walk every day from the hotel through the heart of the city to the other side near Porta Laterina. The walk was magnificent, through narrow medieval paved streets, overhung by three and four storey buildings and beautiful churches. At the centre of the city the streets opened out into the world-famous Piazza del Campo. This is where the Palio, or horse race, is run in period costume in the summer. It is fiercely contested by each district, or Contrada, in Siena. Eating at lunchtime, and some evenings, generally took place in one of the many bars or pizzerias around the fringe of the Campo, or close by. There was nothing nicer than purchasing a real Italian ice cream and sitting eating it by the Gaia fountain in the heart of the Campo, watching the people go by.

The conference was held in the same building throughout the week, which made it easy to dip in and out of different symposia and workshops according to your interests – although substantial changes to parts of the programme did occasionally mean that you missed something. There were three rooms given over to the talks – varying quite considerably in quality. The main lecture theatre was huge and well ventilated. The other two lesser rooms

were small and often overcrowded for the more popular speakers. This made them very hot and stuffy – Italy in the summer is hot! Having said that, in general the programme was very well run, and it was certainly nice to be able to move quickly from talk to talk, or just meet friends to chat outside in the lobbies. One part of a corridor was given over to tables for selling books and other related materials; Jan and Ian did sterling service, and excellent business, for the Society by manning a stall there selling Society journals, etc.

On Monday, there was a very full programme (10 am to 7 pm) concerned with 'Molecular Techniques and Molluscan Phylogeny' in the main session, with a parallel session on 'Marine Molluscan Phylogeny and Systematics' in the afternoon. Tuesday saw the Alan Solem memorial Symposium on the 'Diversity and Conservation of Molluscs', which was largely dominated by discussion of the problems of conserving land snails. Parallel sessions involved 'Molluscan Palaeontology, Palaeobiogeography and Stratigraphical Distribution' and a workshop on 'Medical and Applied Malacology'. Throughout the week there was an opportunity to view more than 120 posters. They covered an enormous range of topics – from a cytological study of the nerve ganglia of *Mytilus galloprovincialis*, to the distribution of some land snails in Portugal, to vanishing Galapagos malacofauna. A prize was given to the best poster at the end of the conference.

Wednesday was the excursion day, although many opted to 'do their own thing' and explore the beautiful city. The Torre del Mangia (a tower), next to the Palazzo Pubblico in the Campo, was the place to climb, giving spectacular views across the city to the Tuscany Hills beyond. The magnificent Duoma (cathedral) was also worth visiting for its internal and external architecture and paintings.

On Thursday, the conference resumed, with parallel sessions on 'Molluscan Reproduction' (ecology, evolution, physiology, morphology), 'Molluscan Palaeontology' and 'Molluscan Behaviour', and a late afternoon meeting of the European Checklist group CIEMAN. Further sessions on Friday were

'Freshwater Bivalvia', 'Non-marine Molluscan Phylogeny and Systematics' and – the meeting I had most looked forward to – a workshop on 'Systematics and Ecology in Opisthobranchs'. Although, again, the programme was disrupted by the non-appearance of some original participants (not their fault, I hasten to add!), this workshop was the highlight of the meeting – in particular a talk by Bill Rudman on colour in Opisthobranchs, with the most wonderful photographs of these exotic animals from Australia and elsewhere.

By Saturday I think most participants were suffering from an overload of too much of a good thing (or it could have been something to do with the social dinner the night before), and the conference ended quietly with the completion of the programme on 'Non-marine Phylogeny and Systematics'.

Throughout the conference there was a busy social programme, with several receptions (everyone, it seemed, wanted to welcome us to Siena!), a visit to Enoteca Italica (wine), an organ recital in the Duomo – and the highlight, a social dinner on the last night. This was held, open air, in Via San Marco, in the heart of the 'Snail District'.

The conference was an excellent opportunity to meet old friends and make new ones, and to be informed of the latest research in your area of interest – so start making plans for the next one in 1995, in Vigo, Spain. And, finally, it gave me the opportunity to experience the magnificence of the St Gotthardt Pass on the return journey through the Swiss Alps. □

The Contrada of the Snail

June Chatfield

Alton, Hants

The Malacological Congress dinner at Siena was a most unusual occasion, a street party in the Territorio delle Contrada della Chicciola – as guests of the Contrada of the Snail. An inscription of a snail set on the street signs in this area was a good carving showing a land snail crawling, and with the correct number of tentacles, and eyes in the right place.

Siena is divided into neighbourhood areas called Contradas, each having an animal as their emblem. There is a competitive spirit between the Contradas particularly in sporting events and there are alliances between some Contradas, while others are regarded as enemies. This became evident at the Congress dinner – at our table was a member of the Zoology Department of the University of Siena who was spotted by our Snail Contrada hosts and some friendly bantering went on in Italian. It was explained that he was a member of the Tortoise Contrada and that the tortoise was an enemy of the snail! At the Congress dinner we were given Snail Contrada badges in the colours of red and yellow and it was interesting to note that several of these were worn at recent meetings of the Conchological Society and the Malacological Society.

An unfortunate shower of heavy rain in the middle of the meal drove us into the shelter of the Contrada Museum where we found a booklet which explained the history of the Contrada, which goes back a long time.

A fifteenth-century story writer gave an account of a sparring match in which the Snail Contrada's strength comes out: 'Beware the snail, strike it. Who will dare to attack it?' In 1482 residents of the San Marco quarter built a processional float representing a giant snail which was paraded around the city, something which was repeated in 1546. They appeared at bull fights when the Snail Contrada were dressed in red livery with a yellow band which are the Snail Contrada colours today. In the seventeenth century the

Oak Tree Contrada, outside the city walls, was allied to the snail.

In 1722 the Snail Contrada members dedicated their winnings from the famous Siena Palio horse race to the restoration of their church. An association was set up within the Contrada which in 1904 came to be a mutual aid organisation and open to natives and residents of the territory of San Marco.

The traditional adversary of the Snail is the Contrada of the Tortoise (Contrada della Tartuca) with whom they had previously been friends. The Snail and the Tortoise Contradas are in adjacent areas of Siena. The problems arose from a dispute relating to the 1814 Palio horse race and the antagonism continued despite solemn ceremonies of repatriation attempted by the authorities in 1820 and 1847.

Today there is a Contrada Museum in San Marco and in the courtyard outside which it shares with the church is a bronze fountain in the shape of a snail sculptured in 1937. Around the town are many souvenirs with Contrada animals – painted on ceramics, as brooches, scarves, stickers, etc. These were obviously discovered by the Congress delegates for one shopkeeper when asked for the snail in a series of trinkets was puzzled why this week all the snails in his souvenir range had gone! We explained about the Congress. □

June Chatfield's Mollusc Course

A weekend course looking at snails and slugs in the
North Downs at Juniper Hall, Dorking.
This area has a rich fauna including Roman snails.

Friday – Sunday, 1– 3 October 1993.

Residents £85, Non-residents £55

Reduced rate for FSC members.

Details and bookings:

*The Warden, Juniper Hall Field Centre,
Dorking, Surrey RH5 6DA*

International Malacological Congress, Siena Field Excursion to the Tuscany Hills

June Chatfield

Alton, Hants

Siena itself is situated on a compact hilltop site with many views of the surrounding hills. An opportunity was available through the Congress field excursion to see the Tuscany countryside and to investigate the molluscs of the area. Two excursions were on offer and this account describes the one to the Tuscany Hills, taking in palaeontological sites and monasteries to the south of Siena.

The first stop was at a brickworks (Stazione di Castelnuova) where the group examined and collected fossils from the clay, a rich assemblage of tropical marine species of Pliocene age. These fossiliferous clays have long attracted the attention of Italian palaeontologists and much has been written on them with many new species of fossil molluscs described from the vicinity of Siena. The tropical groups of gastropods Cypridae, Conidae and Terebridae are well represented and there are also many species of bivalves, a few tusk shells and chitons. Vertebrate and plant fossils also occur in these Pliocene clays. Here live specimens of the land snail *Cernuella virgata* (larger than we have in Britain) were clustered on the vegetation along with living examples of *Trochoidea pyramidata* and *Eobania vermiculata*.

The second stop, also an exposure of fossiliferous clay, was on a hillside at Pietraia Guistrigona near Castelnuova. Here *Cernuella virgata* was again abundant with *Trochoidea pyramidata*, both alive, but shells of eight other species were found.

The last venue for the morning was the Abbey of Monte Oliveto, a Benedictine monastery where we were conducted round the building, church and fine frescoes in the cloisters by one of the current monks. Walking back to the coach, live specimens of *Pomatias elegans* were found and shells of eight other species.

Lunch was taken in a restaurant at Montalcino where a meal of several courses of Italian cuisine was enjoyed, along with wines of the area. A few minutes collecting on the adjacent damp and mossy roadside verge, whilst waiting for the coach to depart, produced live *Helix aspersa* and shells of four other species including *Monacha cartusiana* and *Hygromia cinctella*.

The afternoon, duly fortified by lunch, was spent at the Abbey of St Antimo, a much smaller foundation than Monte Oliveto. This had been abandoned for a number of years and was in ruins, but a small group of French monks settled there, restored the Romanesque church and built on living quarters alongside. With surrounding countryside of olive groves and vineyards, the grounds of the abbey proved a rich site for snail shells which included *Granaria frumentum*, *Rumina decollata*, *Monacha cartusiana*, *Cecilioides jani*, *Hygromia cinctella*, *Helicigona planospira*, *Cochlodina incisa*, *Helix aperta* and *Vitrea subrimata*, very much of a Mediterranean fauna.

The final stop – at a wine store near Montalcino for supplies of the local produce – included an opportunity to collect from a mossy roadside bank and wall which yielded eight species, the most interesting being the enormous zonitid *Retinella olivetorum* represented by many dead shells.

This proved a most enjoyable excursion with the warm sunny weather, attractive scenery of the Tuscany Hills, interesting molluscan sites for field work, cultural visits to the fine abbeys, a splendid Italian meal and good malacological company. Thanks are due to the Congress organisers for arranging this. □

A further note on an anonymous catalogue of Unio's attributed to C.M. Wheatley

Fred R. Woodward

Art Gallery and Museum, Kelvingrove, Glasgow G3 8AG, Scotland

In July 1966 N.F. McMillan and M. Fogan published a note on an anonymous catalogue of Ohio River Uniones which lists 67 species, in the majority of cases including synonyms. The title page of this pamphlet reads: 'Catalogue / of the / Unios, Alasmodontas and Anodontas / of the / Ohio River and its Northern Tributaries, / adopted by the / Western Academy of Natural Sciences, / of Cincinnati, January 1849, / : Cincinnati : Printed by J A & U P James.' It also bears the signature [wrongly interpreted by McMillan and Fogan as Dr Sorrain] of Dr William Buckham Lorrain MD of Glasgow, who died in Hong Kong on 27 August 1857, the eldest son of Dr William Lorrain, Rector of Glasgow High School.

In September 1823, much to his parents' dismay, he was bound apprentice seaman to the firm of Cropper, Benson & Co., and on 29 September 1823 sailed from Liverpool on the *Bengal*, which had recently been repaired at Greenock. She arrived at Calcutta on 20 February 1824 without touching land during a voyage of nearly five months, returning for England in March 1824 and arriving in Liverpool on 19 October 1824 after a voyage of some six months and three days.

It was during this voyage that Lorrain obtained examples of St Helena's endemic land snails *Chilonopsis* and *Helenoconcha* which he collected when the *Bengal* stopped at the island to replenish her water supply (Woodward 1991).

During 1827 to 1829 he studied at Glasgow University and was awarded his MD in 1829. His name first appears in the Glasgow Post Office Directory for 1847-8 as Lorrain, William B., Physician and Surgeon, 2 Windsor Place, Sauchiehall Street, the intervening period from 1829 possibly having been spent as a ship's surgeon.

In July 1851, Dr Lorrain, together with several other young,

like-minded men, established the Glasgow Natural History Society and was elected its first Vice President. At this date he had a fine collection of land mollusca, presumably obtained during his seafaring travels, some of the choicer items having been beautifully illustrated by his close friend Thomas Gray (1820–1910).

In October 1851 he read a paper to the Society entitled, 'Some observations on the Helices of North America' based upon living material supply to him by Mr Joseph Clark of Cincinnati. These consisted of the following: *Helix thyroides*, *H. profunda*, *H. pensylvanica*, *H. multilineata*, *H. alternata*, *H. perspectiva*, *H. palliata*, *H. tri-dentata*, *H. fallax*, *H. hirsuta*, *H. monodon* and *H. concava*.

He resigned as Vice President of the Society in 1852 due to ill health and left Scotland for Penang (from where he sent material to his Glasgow colleagues), his shell collection, including Joseph Clark material, having been given to Gray.

Joseph Clark remains a shadowy figure although an active member of the Western Academy of Natural Sciences based in Cincinnati. He had a particular interest in land and freshwater shells, sending numerous field observations and new species to Dr Isaac Lea (1792–1886) for description. He also supplied Lea with material from Professor David Christy (1802–1868), a journalist and geologist for the Nantahals and Tuckasege Land and Mineral Co., North Carolina, after whom Lea named *Mesodon christyi*.

The dates of Clark's birth and death are unknown but he died before 1862 as evidenced by Lea's remarks under *Strephobasis clarkii* published in 1861 which state:

Strephobasis clarkii hab. Tennessee River, at Chattanooga, Tennessee, Joseph Clark. Remarks: Several specimens of this shell were long since sent to me by my deceased friend, Mr Clark, and it is with particular pleasure that I dedicate it to him, who, during a long life, devoted his best energies to the investigation of the fauna and flora of this, and other western states. [Tryon, [1873: 47], synonymised *Strephobasis clarkii* Lea 1861, with *S. bitaeniata* (Conrad, 1834)].

Lorrain [1852a: 11] acknowledges Joseph Clark supplied him

with numerous North American land and freshwater mollusca and it is reasonable to assume that he was also the source of the anonymous catalogue. A slip attached to its title page inscribed, 'Mr Wheatley seems to have given up the shells I could not procure a copy of his catalogue here but beg you will accept my only copy', bears a strong similarity to the handwriting on the labels accompanying the 'Clark' unionids in the Gray collection which formerly belonged to Lorrain.

Since Lorrain has inscribed the title page it must date pre-1857 and probably pre-1852 before Lorrain left Glasgow. Clark's statement that C.M. Wheatley had given up the shells is erroneous since his 'Revision of M. Petit's Catalogue of the genus *Monocondylaea* d'Orbigny' was published in the *American Journal of Conchology* in 1865 as well as the following advert:

FRESHWATER SHELLS WANTED!

Conchologists or dealers having FRESHWATER SHELLS
from any part of the world, for sale or exchange will please
forward catalogues of species and prices to

Charles M. Wheatley
Phoenixville,
Pennsylvania

From this it is clear that Wheatley not only continued to write on mollusca but was also building up a collection some years after Clark had sent the anonymous catalogue to Lorrain.

Clark's note infers that Wheatley was the author but Lea (1870: 171) refers to this anonymous catalogue thus:

1849; West. Acad. Nat. Sci. Catal. of Shells of Ohio, &c.

Lea knew Wheatley intimately so that the inference of his being author is in doubt since Lea [1870: 168] also refers to Wheatley's 1842 and 1845 catalogues:

1842 Wheatley - Catalogue of Shells of the U.S. with localities,
1st Edition, pp. 29, 12 mo.

and on page 169:

1845 Wheatley Catalogue of Shells of the U.S., 2nd Edition,
p. 7, 18 mo.

If we accept that Wheatley was not the author then who is? The answer is possibly afforded by Isaac Lea since on page xxx of his 1870 Synopsis he writes:

In 1836 the Ohio Naturalists Dr Hildreth, Dr Kirtland, Dr Ward, Judge Tappan, Mr Buchanan and Mr Clark, after much consultation, made out a list for Western naturalists to be finally adopted. They made out 119 species, of which they gave Mr Rafinesque one, and that with doubt.

Dr Hildreth refers to Samuel Prescott Hildreth, MD, born at Methuen, Massachusetts on 30 September 1783 and died at Marietta, Ohio on 24 July 1863. A physician by profession he took a leading role in public affairs, being a member of the Ohio Legislature for the period 1810–11, as well as publishing several papers on medicine and natural history including a catalogue of freshwater shells found near Marietta, Ohio. In 1832 Isaac Lea described *Unio hildrethianus* in his honour.

Dr Jared Potter Kirtland, State geologist and zoologist of Ohio, was born on 10 November 1793 at Wallingford, Connecticut and died on 10 December 1877 at Rockport, Cuyuhoga County, Ohio. Like Hildreth he also practised medicine having gained his MD at Yale University in 1815. In 1818 he was a probate judge at Wallingford, Connecticut and a member of the Ohio Legislature from 1828 to 1834. He was professor of Medicine at the Medical College, Ohio and a founder member of Cleveland Medical College, being its Professor of Medicine from 1843 until his death in 1877.

Kirtland published several papers on land and freshwater mollusca including a catalogue of Testacea of Ohio in 1838 and corresponded with Isaac Lea and also Hugh Cumming as shown by a label in his hand in the BM (NH), London, which reads:

I with great pleasure send you this, the most perfect specimen of *Unio cardium* I have ever obtained. It was found in the Ohio canal 4 miles south of Cleveland such specimens are very rare. J.P. Kirtland.

Dr Kirtland constantly consulted Isaac Lea in regard to the mollusca of Ohio and in March 1836 writes to Lea that:

the Western naturalists have come to the determination not to adopt the species of Rafinesque, as given by Mr Conrad, but to adopt yours.

In 1834 Isaac Lea described *Unio kirtlandianus* in his honour.

Robert Buchanan, a keen and active naturalist with particular interests in Botany and freshwater mollusca, was born in 1797. In 1835 he was elected first President of the Western Academy of Natural Sciences at Cincinnati and had a strong interest in the genus *Unio* as shown by the following letter to him from Judge Tappan, dated 9 October 1836:

We might after a while hear of the proper specific names of the *Unio*'s if the Philadelphians [i.e. T.A. Conrad, Curator at the Academy of Natural Sciences, Philadelphia] would let them alone, but while Conrad, etc. are labouring to father them all upon Rafinesque and Lea is appropriating the discoveries of his predecessors to himself, we get little more than confusion. I am getting to think with Troost that it is best to follow Lea, however, generally he makes too many species, but he will give way to reason and evidence in his late synopsis has improved upon himself.

Buchanan died in 1879, his interest in the Unionidae being recognised by Isaac Lea in 1836 who named an *Anodonta* from Buck Creek, Ohio collected by Buchanan as *Anodonta buchanensis*.

Dr Ward refers to the Ohio naturalist Charles J. Ward of Roscoe, Ohio, about whom I know little except that he produced the description of *Unio sayii* Ward published by Judge Tappan in 1839 in his paper 'Description of some new shells'. This paper included a description of the freshwater gastropod *Paludina heterostrophypha* which had been written by Kirtland.

Lea named *Unio wardii* in his honour in 1862 and remarks:

I have four specimens before me. The largest was received many years since from Mr J.C. Ward, with a doubt as to its being *metanev*, Raf. His note says – 'I have two others in my collection, one much larger and the other smaller than this, besides which I have seen three others, *all of which possess exactly the same characteristics*. It is not sufficiently distinct to erect it into a *new species*? Within the last year, I have, from three other naturalists, received three specimens from other habitats. These satisfy me that Mr Ward's suggestion was correct, and I have great pleasure in dedicating it to my deceased friend, who was an ardent lover of nature and a liberal gentleman.

Ward obtained his material from Walhonding River, Ohio, and *Unio wardii* Lea 1862 is considered to be a subspecies of *Orthonymus metanevurus* (Rafinesque 1820) by Haas (1969). The type material of *Unio sayii* Ward was collected at Circleville and specimens were deposited in the cabinets of Thomas Say, Kirtland, Ward and Tappan. The present status of this species is as a junior synonym of *Uniomorus tetralasmus* (Say, 1830).

The final member of the group, Judge Tappan, refers to Benjamin Tappan, Jr., born on 25 May 1773 at Northampton, Massachusetts. He appears in the history of Ohio as the second settler in one of the northern counties of the state, the founder of the town of Ravenna, presiding judge of a circuit court of common pleas and United States Senator for Ohio from 1839 until 1856.

Henry Howe, who might be termed a middle western collector of eccentricities, wrote that Tappan was 'Cross-eyed, with a pair of sharp black eyes and talking through his nose in a whining, sing-song sort of style.' Like many of the frontier judges he was given to making informal pronouncements from the bench. For example, when wearied with a verbose lawyer he called to him to 'Shut up! You don't know anything about it. You were a fool forty years ago, when I first knew you, and you have been failing every day since.'

Tappan combined his political and natural history interests playing a leading role in the establishment of the Smithsonian Institution in Washington and also serving on the committee for the publication of Wilkes U.S. Exploration Reports. His chief interest was in the study of the mollusca to which he applied his legal background in attempting to standardise the nomenclature of the North American Unionids present in Ohio as indicated by his voluminous correspondence on the subject with Isaac Lea, Samuel P. Hildreth, Robert Buchanan, etc. In a letter to Lea dated 14 August 1836 he writes:

Since I saw you I have had a visit from Dr Kirtland and have spent a day with Hildreth; we have agreed to the following nomenclature of the *Unio*'s viz. [there follows a list of one hundred and eighteen names].

In the same letter he writes concerning a 'new' *Unio*: 'Dr Kirtland will publish a description of this shell probably, and name it *tappanii*.'

It was Lea, however, who described it as *Unio tappanianus* in 1836, his description being based upon material forwarded to him

by Dr Kirtland collected from Juniata, near Hollidaysburg. Its present status is as a junior synonym of *Lasmigona (Platynaias) subviridis* (Conrad, 1835).

Tappan died on 12 April 1857 at Staubenville, Ohio in his 84th year, his name being perpetuated in the Tappan Dam, Ohio as well as being given to the terrestrial gastropod *Pupa tappaniana* by Thompson in 1842.

It would seem feasible that the 'Lorrain' anonymous catalogue attributed to Wheatley represents the culmination of the 1836 list for Western naturalists referred to by Lea, the joint authors being Drs Hildreth, Ward, Kirtland, Judge Tappan and Messrs Buchanan and Clark.

Acknowledgements

My sincere thanks are due to Mrs M. Fogan for the loan of her original copy of the anonymous catalogue, to the staff of the Mollusca Section, British Museum (Natural History) for allowing me access to their library and archives and to Mrs N.F. McMillan, G. Hancock and R. Sutcliffe for comments and advice.

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Information Wanted!

A shell collection recently received by Liverpool Museum was said to be that of Arthur William Rymer Roberts (1879–1955). However, it included British non-marine spp. collected by H.L.B. (assumed to be Hugh Brooksbank, MB, member of the Conchological Society from 1899 to at least 1918, then of College Road, Windermere).

The collection also included what a large label described as 'A Selection of Shells from the Collection of Mr E.A. Annett formerly of Kents Bank Road'; this was apparently the remains of a general and worldwide collection, now in dreadful disarray.

The specimens which seem assignable to Rymer Roberts are in good condition and localised, almost all British non-marine species. Also included is a large collection of land-shells, undated, but apparently all from around Merlewood. All are meticulously localised with habitat details, e.g. 'under oak', 'under yew' and named, but some (? later) bear other names in a handwriting which I assume is that of Rymer Roberts.

I have information of Rymer Roberts (but no label in his handwriting), but should like to know more of Dr Brooksbank and Mr E.A. Annett. Can anyone help?

Nora McMillan, Department of Zoology, Liverpool Museum

American Shells – AD 1590

Fred Pinn

London

The illustrations* shown below were engraved by Theodore de Bry (1529–98) for his 14-volume *Historia Americae* launched in 1590.

De Bry was born at Liege, a Protestant who had to flee from the Spanish inquisition then rampant in the Netherlands, and settled again in Strasbourg. There he opened a goldsmith's workshop and also practised as an engraver. He later moved on to Frankfurt where he established with his eldest son a successful engraving and publishing business. Always in search of material which would illustrate his various travel accounts, he visited London several times and obtained the beautiful drawings by the artist John White which were incorporated in his *Historia Americae*. John White had accompanied Sir Walter Raleigh on his voyage to the New World in 1585 as surveyor and 'skilfull painter' and later became first Governor of Virginia.

The particular interest in these illustrations lies in their recording the use of shells as drinking vessels and the rituals connected with them.

Fig. 1. *Ceremonies of the women in mourning for their husbands*

'After arriving at their husbands' burial place, in memory of these brave men they cut their hair below their ears and scatter it on the graves where they have already thrown their husbands' shell drinking-cups and weapons.

*From *Discovering the New World*, based on the works of Theodore de Bry, edited by Michael Alexander, London Editions 1976.



Fig. 1. Ceremonies of the women in mourning for their husbands



Fig. 2. How the Floridians deliberate on important matters

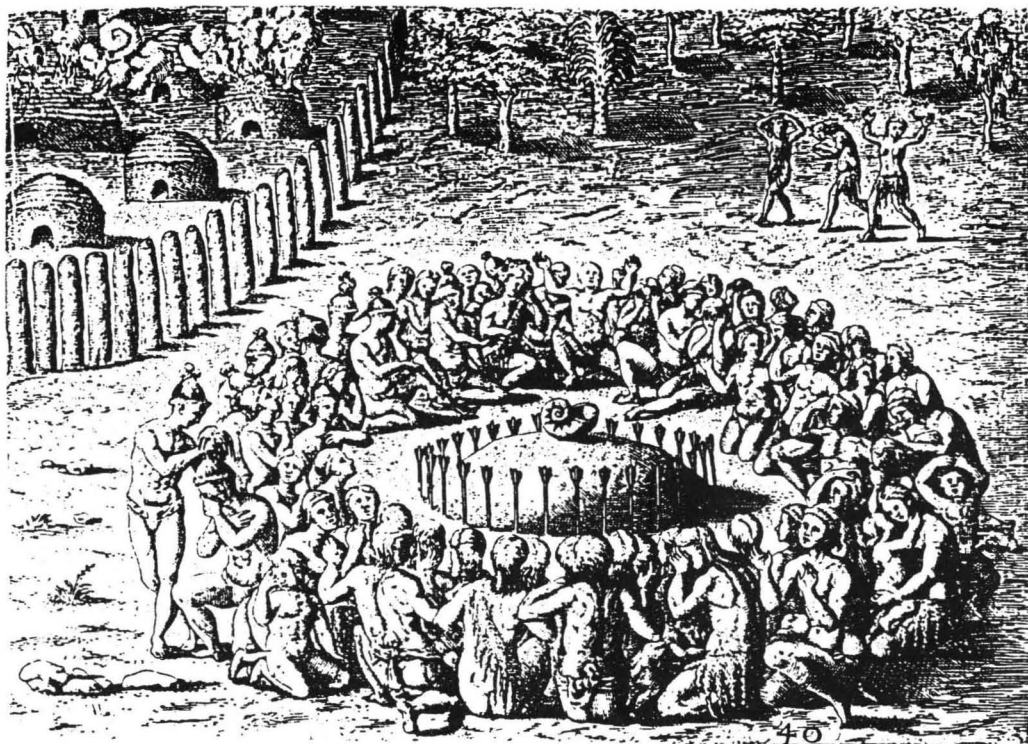


Fig. 3. Funeral ceremonies in honour of kings and priests

Fig. 2. *How the Floridians deliberate on important matters*

'On certain days of the year the king usually assembles with his nobles in a place specially prepared for this. There, there is a large bench constructed in a semi-circle with a projection made of nine tree trunks in the centre, which serves as the throne of the king. He sits there, all alone, so he can look distinguished and the others come, in turn, to salute him. First the oldest make their obeisances, by twice raising their hands to their head and saying '*Ha, he, ya, ha, he*' to which the others reply, '*ha, ha.*' After saluting the king, everyone goes and sits down on the bench. If any question of importance is to be discussed, the chief calls first upon the *jawas* (that is, the priests) and upon the elders to each give their opinion. The Indians, in fact, never make any decisions without first having listened to all the various opinions and discussed them. Then the king orders the women to prepare some *casina* which is a beverage made from the leaves of a certain plant passed through a strainer. Then, an Indian, stretching out his arms, says some prayers to the king and those who are going to partake of this hot drink, which is then passed round in a big shell, first to the king and afterwards, in strict order of protocol, to the others.

Fig. 3. *Funeral ceremonies in honour of kings and priests*

'When a chief from that country dies, he is buried with great solemnity. The cup from which he used to drink is placed on his tomb which is surrounded by arrows stuck in the ground. □

A Further Small Archive of Lt. Col. A.J. Peile (1868–1948)

B. Verdcourt

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

In 1978 I reported on three small packets of letters and drawings of radulae which had passed into my hands (*Conchologists' Newsletter* 67: 111–112). These are now in the Royal Scottish Museum Archives. A further packet concerning African molluscs had been separated and placed in my set of reprints dealing with African Snails. This also has been passed to the same museum, but it seems worth mentioning what it contains:

- A letter from Hugh Watson to Peile dated 6 December 1930 dealing with the radulae of *Pachnodus* and *Conulinus*, notes on which Peile had sent to Watson. On the one blank page are pencil drawings of those of *Pachnodus velutinus* and *P. fulvicans*.
- Pencil notes on various Enidae.
- An undated letter (circa 1922) from H.A. Pilsbry to Peile dealing with a *Marconia* Peile had sent to him. Peile had drawn a radula in ink on this letter, probably that of *M. margarita* (Preston) since it has a central tooth.
- Three pages of pencil notes dealing with streptaxid radulae namely *Gulella* (*Conogulella*) *conospira*, *Marconia elgonensis*, *Marconia masabana* and *Gulella porcina*. This is the background data for Peile's contribution to Connolly's paper (*Proc. malac. Soc.* 19: 37–48 (1930)).
- Two matinee tickets for Tuesday, 28 November 1924 at Wimbledon Theatre with enid and streptaxid radulae on the back.
- A puzzling slip of paper with two radulae drawings said to be of 'piperata' and 'chastellii Fer.' and labelled *Bloyetia*. This African taxon (now scarcely a section of *Trochonanina*) has never had species with these names so far as I am aware.
- What is probably the original drawing of the radula of *Marconia margarita* (Preston) (see Connolly in *Ann. Mag. nat. Hist.* (9) 10: 488 (1922)). A cleaned-up version of the sketch on Pilsbry's letter.
- Drawings of radulae of *Bloyetia peliostoma* (von Marts.) and *Ledoulxia formosa* Bgt. (now both placed in *Trochonanina*).

- Pencil drawing of radula of *Gulella titania adansiensis* Connolly and a duplicate of it drawn on a sheet devoted to the radula of *C.(?) verrucosus*.
- Description of radula of *Edentulina latula* von Marts. and a copy of Thiele's figure of the same under the name *Marconia latula*.

Peile worked with an amazing economy. Although he produced numerous descriptions and figures of radulae from all sorts of molluscs for both his own papers and those of others, I doubt if he spent more than £50 on equipment during his entire lifetime. His work was accurate and of lasting value. He was one of a trio of great radulae mounters, the other two being H.M. Gwatkin (1844–1916) whose radula collection is in the British Museum (Nat. Hist.) and E.W. Howell (1872–1935).

There is a fine portrait of Peile as plate 1 of Vol. 19 of the *Proc. malac. Soc.* March 1930.

To any future person studying the development of radula studies these two small Peile archives will be of value. □

Pewsey Field Meeting

Michael Weideli

Newbury, Berks

Scotchel and Jones's Mill Nature Reserves are on the upper stretches of the Hampshire Avon. Scotchel is a small nature reserve owned by the Pewsey Parish Council and Jones's Mill is a reserve managed by the Wiltshire Trust for Nature Conservation. Hat Gate is a recently acquired reserve of the Wiltshire Trust and comprises of a grassy area and disused railway embankments.

Very little recording had been done on any of these reserves and the leaders, Dorothy Cooper and Michael Weideli, were very pleased to have fifteen members of the Society in attendance on Saturday, 25 July 1992.

Scotchel reserve was the first site visited and it yielded 30 species from the various types of habitat which included the River Avon, a drainage brook and wet woodland.

Jones's Mill produced 31 species, including the rare wetland snail *Vertigo moulinsiana* (Fig. 1). This had not been previously

recorded at the site and provided an important new 10 km square record.

The final visit in the late afternoon was to Hat Gate where just 16 species were recorded.

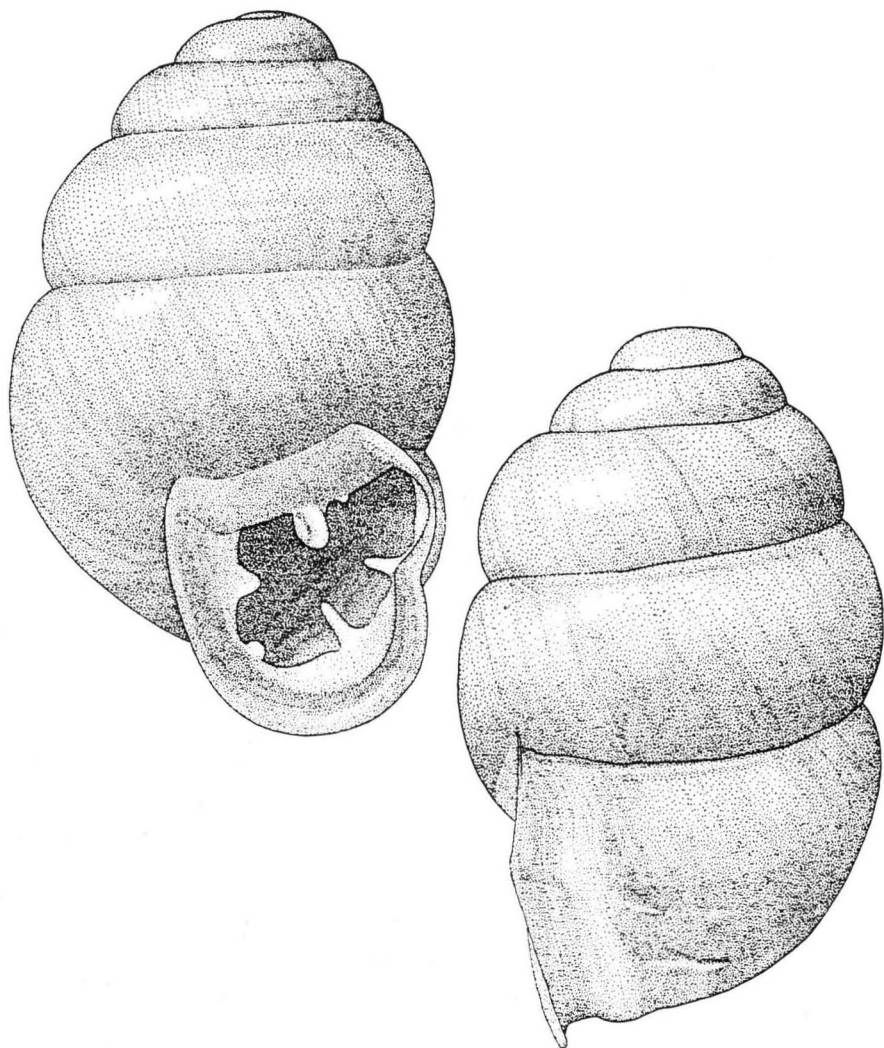


Fig. 1. *Vertigo moulinsiana*.

Coll. D.W. Guntrip, drawn D.W. Guntrip

Conchological Society of Great Britain and Ireland

Minutes

1032nd (Annual General) meeting held on 16 March 1991 at BM (NH).

In the chair: Mr D.C. Long with 44 members and friends present.

Death of members: The deaths were announced of:

- | | | |
|----------------|---|------------------------|
| M. Glauser | — | member since 1984 |
| W.G. Buick | — | member since 1972 |
| Mrs H. Boswell | — | life member since 1952 |

Appointment of scrutineers: Mrs C. Pain and Mr D. Worth were appointed.

Nomination and election of new members :

Two members were elected:

- Miss D.E. Lock
[redacted], Lewes, East Sussex [redacted]
- Miss E.A. Moorkens, BA (Sc.), H.Dip (Ed)
[redacted], Dublin 16, Ireland.

Report of Council presented by 'Acting' Hon. Secretary:

A report was presented for a two-year period (1989–91). Mrs E.B. Rands was thanked for continuing to be 'Acting' Hon. Sec. for longer than she would have wished. The report was accepted.

Report of the Hon. Treasurer: Read and accepted.

Report of the Hon. Non-Marine Recorder: Read and accepted.

Report of the Hon. Marine Recorder: Read and accepted.

Report of the Hon. Programme Secretary: Read and accepted.

Report of the Conservation Officer: Read and accepted.

Presidential address: Mrs M. Fogan – 'Molluscs in Fiction' Part II.

Announcements :

- Mrs Rands pointed out that the CSGBI as a registered charity was able to and would be pleased to receive donations such as collections of coins in jam jars, etc.
- Mr I.J. Killeen was taking bookings for the Weymouth dredging trip.

Election of auditors: Mr N. Light and Mr D. Worth were elected.

Result of postal ballot: The following were elected:

President	Mr F.R. Woodward
Hon. Secretary	Vacant
Hon. Treasurer	Mr A.D. Seccombe
Hon. Editor (Journal)	Dr R.C. Preece
Hon. Editor (Newsletter)	Mr P. Negus
Non-Marine Recorder	Dr M.P. Kerney
Marine Recorder	Mrs J. Light
Programme Secretary	Mr I.J. Killeen
Conservation Officer	Dr M.J. Willing

Council members:

Mr D.R. Seaward	for a three-year period
Dr B.F. Coles	for a three-year period
Dr E.E. Sandor	for a three-year period
Mr E.G. Philip	for a one-year period
Mr P. Lee	for a one-year period.

Meeting closed at 4.55 pm.

Members' exhibits :

- A.J. Rundle Fossil bivalve gastropods from the Eocene of France and England
- E. Platts Centenary items of Malacological Society for sale.
(for Malac. Soc.)
- D.C. Long Freshwater mollusca from the Avon at Tewkesbury
- T. Pain *Marisa* Gray, 1824. (Prosobranchia-Ampullariidae) tropical South America, West Indies.
- D.R. Worth *Amphidromus perversus interruptus* (Muller, 1774), Java, Indonesia.
Water-colour by Ken Wye of Eaton's Shell Shop.
- D.W. Guntrip Slug key suitable for beginners.



1033rd (ordinary) meeting held on 20 April 1991 at the BN (NH).

In the chair: Mr F.R. Woodward with 40 members and friends present.

Nomination and election of new members:

- L. Dantart, [REDACTED] Barcelona, Spain.
- Ms F. Abraham, [REDACTED] Petworth, Sussex.
- L. Blaker, 67 Auckland Hill, West Norwood, London SE27 9PF
- J.P. Cox, BA, [REDACTED] Klarental/Saar, West Germany
- Mrs J.W. & Miss K.C. Lehoucka (family membership), [REDACTED]
[REDACTED] Fordingbridge, Hampshire [REDACTED]

Lecture of the day: Dr Brian Eversham (Monks Wood): 'Molluscs in Environmental Assessment'.

Meeting closed at 4.20 pm.

Members' exhibits :

- Mr E. Philp Foreign freshwater bivalves
- Mr D. Guntrip Identification of British freshwater gastropods
- Mr D. Long
 - a) Swiss non-marine mollusc recording forms
 - b) Various publications
- Mr T. Pain Endemic Prosobranchs from Lake Baikal.
- Mr F. Woodward *Tanysiphon rivalis* Benson 1858
- Miss S.M. Davies *Arion flagellus* from Cheddar
- Mr K. Brown *Sconsia lindae* Petuch 1987, also book *New Caribbean Molluscan faunas* by E.J. Petuch containing original description of above species.

1035th (Ordinary) meeting held on 19 October 1991 at the BM (NH).

In the chair: Mr F.R. Woodward with 36 members and friends present.

Announcements of death:

The death was announced of Mrs K.R. Smythe.

Nomination and election of new member:

Mr George Cater, [REDACTED] London [REDACTED]

Lecture of the day:

Dr Rupert Honnor – 'Worldwide Patellidae'.

Papers to be read:

Dr Coles read the titles of the papers that are due to appear in a future edition of the Journal.

Announcements and correspondence:

1. Mr J. Ross Mayhew of Nova Scotia has written explaining his scheme for selling shells to raise funds for third world development charities.
2. BIOLINK '91 conference in Paisley, Scotland – 26 October 1991.
3. Mr Jiri Zidek of Socorro, New Mexico, is hoping to be able to relaunch *The Cowry* magazine. He wishes to hear from anyone interested.
4. The December indoor meeting will include a quiz and reprints sale.
5. The CSGBI's opinions have been included in a House of Lords report on systematic biology research.
6. The bivalve mollusc *Margaritifera* is now on the Wildlife & Countryside Act's protected species list.

Any other business:

1. The problem was raised of antique shops dismembering old and valuable books to make even more valuable mounted prints. This was discussed but no-one could think of a way of preventing it happening.
2. Hawaiian Shell Club 50th anniversary: A congratulations card was circulated for signing so that it could be sent to them.

Meeting closed at 5.00 pm.

Members' exhibits:

- | | |
|------------------|--|
| • B. Verdcourt | Various newspaper cuttings. |
| • P.E. Cambridge | <i>Glycymeris</i> of Suffolk Pliocene Red Crag. How many spp? |
| • T. Pain | <i>Concholepas concholepas</i> (Brugière, 1972) Peru & Chile. |
| • B. Colville | European seashells. JNCC Reports. |
| • J. Reynolds | Fossil shells and corals for identification.
<i>Juvenile Archachatina fulica</i> |
| • F. Woodward | <i>Cypraea leucodon</i> – genuine and wooden carving.
Books by Kathie Smythe and <i>Fusinus gallerghi</i> Smythe. |
| • K. Brown | Books on South American shells. |
| • J. Nelson | <i>Tasmanian Sea Shells</i> – book. |

1036th (Ordinary) meeting held on 16 November 1991 at the BM (NH)

In the chair: Mr F.R. Woodward with 42 members and friends present.

Nomination and election of new members:

- Mr B. Banks, [REDACTED], Hawkhurst, Kent.
- Dr S. Payne, [REDACTED], Cambridge, [REDACTED]

Lecture of the day: Dr Martin Willing – 'Molluscs, Conservation and the South Downs'.

Meeting closed at 5.00 pm.

Members' exhibits:

- Dr Willing Snails and information to illustrate talk on South Downs.
- Mr T. Pain Land shells from the Oligocene Bembridge Limestone of the Isle of Wight.
- Dr B. Colville Some snails from Sussex.
- Mr K. Hill *Helicodonta obvoluta* – a breeding group.
- Dr J. Chatfield Photographs of 'Eccentric Collectors' exhibition (Area Museums Service for S.E. England).
- Mr F. Woodward Shells and catalogue from Westerlund collection.
- Ms J. Reynolds Two recent newspaper articles.
Epiphragm from *Archachatina*.
- Mr D.C. Long Land molluscs from Britain mostly collected by Society members.
- Mr P. Lee A few land snails from the Greek islands of Corfu and Lesbos.



1037th (Ordinary) meeting held on 14 December 1991 at the BM (NH)

In the chair: Mr F.R. Woodward with 30 members and friends present.

Nomination and election of new members:

- Miss R.E. Hill, [REDACTED], Reading, [REDACTED]
- Mr R. Boyce, [REDACTED], Reading, [REDACTED]

Lecture of the day: Quiz and members' slides.

Announcements and correspondence:

Mr Killeen announced the dates and locations of the 1992 field meetings.

Meeting closed at 5.00 pm.

Members' exhibits:

- Miss E.F.A. Fogan Beach collected shells from Panama.
- Miss J. Sawyer Florida sea-hare *Aplysia wilcoxi*, Heilprin 1886.
- Mr F. Woodward Blaschka models of seaslugs in glass circa 1870 from Glasgow Museum collection.
- Mr D. Long Snails from the Picos de Europa – and paper on *Menkia*.
- Mr T. Pain Giant land shells and eggs.
- Mr S. Tracey Fossil and Recent *Scaphander/Philine* and gizzard plates.
- Mr D. Guntrip *Helix aspersa*.
- Mrs C. Street *Colus gracilis* from Orkney. □

Letters

Dear Editor,

I was a member of the Conchological Society for about 10 years, leaving in 1987 when my interests became more archaeological than conchological. Mollusc identification is a major part of my work at the 'digs' I am involved in.

I recently had some invaluable reference books stolen – I don't suppose they were any good to the thief but there we are and they were not recovered. I have found them impossible to replace being, I think, out of print.

Perhaps a Society member may have copies for sale or may know of a source where they can be obtained from? They are:

1. Tebble, *British Bivalves* (HMSO)
2. Thompson and Brown, *British Opisthobranch Molluscs*. Synopses of the British Fauna. Academic Press for the Linnean Society.
3. Graham, *British Prosobranchs*. Synopses of the British Fauna. Academic Press for the Linnean Society.

David Adams

██████████
Newhaven, East Sussex ██████████

Applications published in the Bulletin of Zoological Nomenclature

The following Applications were published on 25 March 1993 in Vol. 50, Part 1 of the *Bulletin of Zoological Nomenclature*. Comment or advice on these Applications is invited for publication in the *Bulletin*, and should be sent to the Executive Secretary, ICZN, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, UK.

Case 2838 *Pleurobranchus forskalii* Rüppell & Leuckart [1828] and *P. testudinarius* Cantraine, 1835 (Mollusca, Gastropoda): proposed conservation of the specific names.

W.B. Rudman

The Australian Museum, PO Box A285, Sydney South, New South Wales, Australia 2000.

Abstract. The purpose of this application is to conserve the specific names of the pleurobranch opisthobranch molluscs *Pleurobranchus forskalii* Rüppell & Leuckart, [1828] and *P. testudinarius* Cantraine, 1835. The latter name is threatened by the senior objective synonym *Pleurobranchus forskahli* Delle Chiaje, 1822. Additionally, it is shown that the name 'Lepus marinus' mentioned by Forsskal (1776) and others is a vernacular.

Opinions published in the Bulletin of Zoological Nomenclature

Opinion 1699

Conus fulmen Reeve, 1843 (Mollusca, Gastropoda): specific name conserved, and *Conus berghausi* Michelotti, 1847 given precedence over *C. demissus* Philippi, 1836.

Opinion 1700

Laeocochlis Dunker & Metzger, 1874 (Mollusca, Gastropoda): conserved as the correct spelling. ☐

Diary of Meetings

The diary is presented in date order and includes both meetings of the Conchological Society of Great Britain and Ireland and meetings of molluscan interest run by other organisations. Fuller details of Conch. Soc. field meetings are given on page 199.

5-6 June, Westmorland: Conch. Soc. field meeting led by Barry Colville ().

26 June, Avon Levels: Conch. Soc. field meeting led by Tony Smith ().

4-10 July, Cambridge: 'Southern Ocean Cephalopods: Life Cycles, Populations'. Conference details from Dr Paul Rodhouse, British Antarctic Survey, High Cross, Madingly Road, Cambridge CB3 0ET.

10 July, Wicken Fen, Cambs: Conch. Soc. field meeting led by Richard Preece ().

10 July, Gosport, Hants: 'Life on the Solent Shore', a one-day course led by June Chatfield. Details from Department of Adult Education, University of Southampton, Southampton SO9 5NH.

24 July, Poole Bay, Dorset: Conch. Soc. dredging trip. FULLY BOOKED.

29-31 July, Cornwall: AGM and Conference of National Federation for Biological Recording. Details on page 167 of this newsletter.

1-7 August, Eastern Pyrenees: A course on the slugs and snails of the region led by Sylvain Clanziz. Details from M. Guy Pinault, (), Nohèdes, France. Tel. ().

18-22 August, Oban, Scotland: Conch. Soc. field meeting led by Shelagh Smith ().

3-4 September, Helsinki, Finland: Colloquium of the European Invertebrate Survey, 'Threatened Species and Bioindicators at the Pan-European Level'. Details from Ilmari Valovirta, Finnish Museum of Natural History, PO Box 17, SF-00014 University of Helsinki, Finland.

14-16 September, London: Malac. Soc. Centenary Symposium entitled 'Origin and Evolutionary Radiation of the Mollusca.' Details from John Taylor, Department of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD.

17 September, London: Malac. Soc. Centenary meeting entitled 'Evolution and Systematics of Patellidae'. Details from John Taylor (see above).

18-19 September, South Devon: Conch. Soc. field meeting led by David Bolton () and Dennis Seaward ().

1-3 October, Juniper Hall, Dorking: 'June Chatfield's Mollusc Course'. Details on page 172 of this newsletter.

16 October, London: Conch. Soc. indoor meeting, 'Museum mollusc collections and their curation' by Miss Alison Trew. The Natural History Museum at 14.30.

23 October, Reading: Conch. Soc. field meeting led by Rosemary Hill
[REDACTED]

29-31 October, Isle of Wight: 'Snails and Slugs: Wildlife Study Course' led by Ian Killeen. Details from the Medina Valley Centre, Dodnor Lane, Newport, Isle of Wight PO30 5TE (0983 522195). Course fee £35 non-residential. □

FOR SALE

CONCHOLOGICAL BOOKS

WANTED

CONCHOLOGICAL BOOKS

Free booksearch offered for out-of-print books

Please state Author, Title and Publisher if known

Write to:

Susan Davies
[REDACTED]

Portishead, Bristol [REDACTED]

Field Meetings 1993

Hon. Programme Secretary:

Ian Killeen

[REDACTED]
Felixstowe, Suffolk, [REDACTED]

Tel. [REDACTED]

Important

Please remember to inform the leader if you are attending a field meeting.

Saturday, 26 June, AVON LEVELS

Leader: Tony Smith (Tel. [REDACTED])

An opportunity to examine a number of rich aquatic sites plus an end of afternoon visit to a local shore:

1. Walton Moor NR (Grid Ref. ST432726). A live *Marstoniopsis sholtzi* has been reported from this site.
2. Biddle Street, Yatton (ST426653). Ditches and a gravel pond. *Pisidium pseudosphaerium* and *Hygromia cinctella* have been found recently.
3. Kingston Seymour (ST401669). More than a mile from the sea *Cochlicella acuta* has been found on the banks of a ditch. The aquatic molluscs may well include brackish water species.
4. Sand Bay (Car Park ST330659) at c. 1700. The shore at Sand Bay is west facing, gently shelving, sandy and muddy. There are rocky promontories at both ends of bay. The marine records are very incomplete in this area.

Meet at the M5 Gordano Services, Junction 19 (ST508755) at 10.45. Members who may travel by train to Bristol should arrange transport with Tony Smith.

Saturday, 10 July, WICKEN FEN, CAMBRIDGESHIRE

Leader: Richard Preece (Tel. [REDACTED])

Wicken Fen is a rich site for a wide range of invertebrate species. *Valvata macrostoma* and *Pisidium pseudosphaerium* have recently been found alive in the Fen. *Oxyloma sarsi* is known from dead shells only. There will be an opportunity to compare the faunas of sites within the fen which have been subjected to different management regimes over the years. There may also be an opportunity to explore some of the less accessible areas by boat.

Meet at the National Trust car park (TL 565705) at 10.00.

**Wednesday to Sunday, 18–22 August,
OBAN AREA, SCOTLAND**

Leader: Shelagh Smith, [REDACTED]

[REDACTED] Cumbria [REDACTED] (Tel [REDACTED])

As yet we have made no arrangements for accommodation for this trip. Self-catering tends to be Saturday to Saturday and is expensive in August; however, we may take out a bulk booking at a farmhouse B&B. It is therefore important that all members interested in this trip should contact Shelagh immediately.

The main purpose of the trip is to examine and record a number of very rich shores for marine molluscs during a period of good spring tides. The sites visited will depend on the weather, but the following are proposed: Clachan Sound, Isle of Luing, Loch Craignish, Loch Sween and Loch Creran. This is a limestone-rich area and therefore the terrestrial mollusc fauna is likely to be interesting. We are also looking into the possibility of using the SMBA vessel for some dredging in the Firth of Lorne. This will depend on availability, cost, etc.

**Saturday and Sunday, 18 and 19 September
SOUTH DEVON**

Leaders: David Bolton (Tel. [REDACTED])

and Dennis Seaward (Tel. [REDACTED])

For marine species the coast between Torquay and Plymouth offers a variety of rich shores including classic sites such as Wembury. Inland there are interesting terrestrial habitats for species such as *Leiostryla anglica*.

Saturday, 23 October, READING

Leader: Rosemary Hill (Tel. [REDACTED])

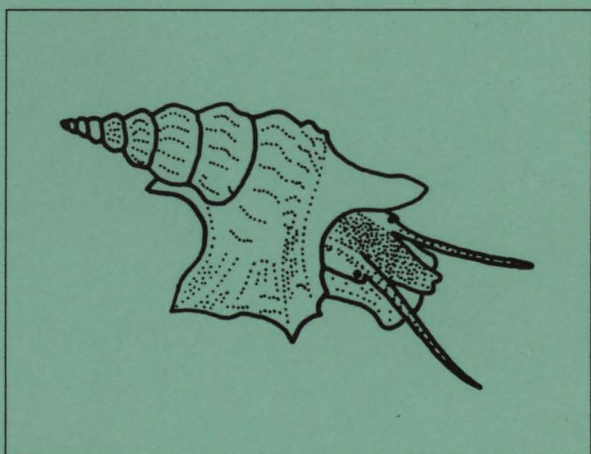
An opportunity for an end-of-season visit to ancient woodland and Thatcham reedbed.

The Conchologists' *Newsletter*

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No. 126

September 1993



Conchological Society of Great Britain & Ireland
(Founded 1876)

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Recording Mollusca in Ireland: Castleward Bay, Strangford Lough

Julia Nunn

Marine Biology Station, Queen's University Belfast

Strangford Lough is a fully saline fjordic lough lying about 14 km from the city of Belfast in Northern Ireland. It is now recognised to be the most diverse sea lough in the British Isles (Gubbay, 1988). More than 72% of the bottom living marine animals and plants known from Northern Ireland have been recorded. This diversity is represented by a range of substrata (solid bedrock to fine silt/clay), depth (0–66m), current (0–8 knots), salinity (fully marine to brackish), intertidal habitats (steep bedrock to wide mud flats) and the presence of animals (e.g. *Modiolus modiolus*) which can introduce diversity by providing a substrate for other species to colonise.

I have already discussed (Nunn, 1991) one of the richest sites for mollusca in this lough, Ballyhenry Bay. Castleward Bay, which lies south and opposite Ballyhenry Bay in the north entrance to the Narrows (Figure 1), is also a very rich area, and includes an important habitat, the coralline alga maerl. Furthermore, this site was one of the few areas in the Lough to be studied by naturalists of the 19th century. In the late 18th and early 19th century, very little work was done on the marine fauna of Ireland. The lack of records was remedied by the foundation of the Belfast Natural History Society in 1821, renamed the Belfast Natural History & Philosophical Society in 1842. Many of its members (e.g. George Hyndman 1796–1867 and William Thompson 1805–52), were particularly active in recording the fauna of Belfast Lough. Another member was George Dickie (1812–82), the first Professor of Natural History at Queen's University Belfast. In June 1857, he carried out a series of dredges in Strangford Lough, the results of which were published in 1858. This was the first paper on a distinct geographical area. Little work was done in subsequent years, although all records were drawn together and published in an annotated

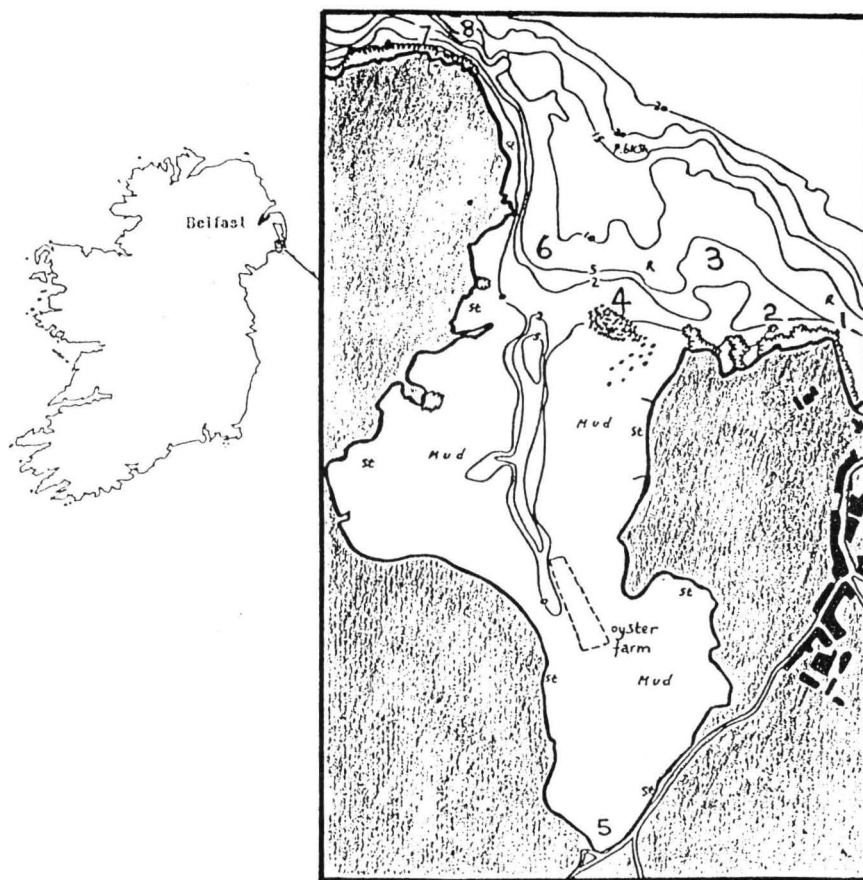


Fig. 1: The location of Castleward Bay,
Strangford Lough

checklist by Williams in 1954. More recently, the Department of the Environment (NI) commissioned surveys of the marine life of Northern Ireland which included Strangford Lough (Erwin et al., 1986, Wilkinson et al., 1988).

For a part-time M.Sc. thesis, I surveyed the marine mollusca of the whole Lough including Castleward Bay. Eight different sites in the Bay were visited (5 littoral; 10 dives; 1 dredge (Figure 1)). A range of habitats were studied, from soft mud to bedrock and coarse sand/gravel (see below). Four of the dives were by members of Portaferry Scientific Divers collecting on my behalf. Samples of algae/hydroids/bryozoa were taken after a general search from both the shore and whilst diving, for further examination at home. Those from the shore were soaked in fresh water overnight, and the detached mollusca preserved in 70% alcohol. Samples from sublittoral sites were put into trays with sea water, and left for 1–2 days to allow any small opisthobranchs to crawl out. These animals were removed, and the samples thereafter treated as those from the shore.

Sites (see Figure 1)

1. **Church Point: Beacon** 9.4.92 54° 22.60' N 05° 33.33' W
Steep bedrock slope leading to channel behind outcrop with beacon. Boulders and kelp in channel.
2. **Church Point** 18.9.89 54° 22.60' N 05° 33.60' W
Muddy gravel upper shore. Bedrock island at mid to lower shore, with clean sheltered channels. Two *Rissoella* spp. and three *Odostomia* spp. *Calliostoma zizyphinum* abundant.
3. **Zara Shoal** 16.9.89/12.5.90 4 dives 10–16m 54° 22.72' N 05° 33.70' W 30.4.90 dredge 3–9m.
Gravelly coarse sand, firm sandy gravel. Thin maerl bed on the gravel and between rocky outcrops with kelp attached to rock. Scattered outcrops of bedrock and boulders with kelp, hydroids and *Alcyonium digitatum*. Chitons, *Crenella decussata*, *Palliolium tigrinum*, *Mangelia coarctata*, *Gartellinella*, *Parvicardium scabrum*, *Ischnochiton albus*. Dead shells of *Raphitoma purpurea*, *Jujubinus montagui*, *Eulima bilineata*, *Oenopota rufa*.

4. **Sleitch Rocks** 1.3.90 54° 22.58' N 05° 33.95' W
Long narrow spit of gravel and mud with central ridge of firm gravel, with patches of soft mud. Occasional stones and boulders. Some outcrops of bedrock on east side. *Goniodoris nodosa* and *Onchidoris bilamellata* spawning. *Crassostrea gigas* from oyster farm.
5. **Head of Castleward Bay** 28.5.90 54° 21.92' N 05° 33.92' W
Narrow strip of bare slatey stones at top of shore with boulders and stones below covered in *Ascophyllum nodosum*. Boulders set in mud with some small gravel/stones. Lower shore, very soft mud.
6. **Audleys Roads** 19.2.89 1 dive: 15.1m 54° 22.75' N 05° 33.90' W
Sand, soft sand and mud, mixed with a little coarse sand. *Nucula nucleus*.
7. **Audleys Rocks** 28.3.90 54° 22.95' N 05° 34.30' W
Narrow steep shore of smooth bedrock outcrops, with small bays of pebbles and boulders on gravel. Lower shore of boulders covered in *Lithothamnion* spp. and kelp. *Echinus esculentus* common and present high on the shore. *Adalaria proxima* – pale yellow form.
8. **Audleys Point** 19.9.87–1.1.91 5 dives: 10–36m 54° 22.98' N 05° 34.21' W
Plateau of gravel, coarse sand with bedrock outcrops, dropping steeply away from 10m+ to 40m+. Bedrock cliffs, with *Alcyonium digitatum* common on the rock, with hydroids especially *Nemertesia* spp. *Doto* sp. on hydroids. *Emarginula fissura*, *Tritonia hombergi*, *Boreotrophon truncatus*.

It is interesting to compare the records of the recent molluscan fauna with that seen by Dickie in 1857. The exact site(s) dredged by him in Castleward Bay are not known – 'a quarter of a mile from the shore, depth 7 to 20 fathoms, 3 and a half miles from the sea, bottom mud, small stones, gravel'. This locality was the richest in terms of the number of species he found during the whole dredging expedition in the Lough (12 excursions in 15 days).

The nomenclature used in Table 1 follows Smith & Heppell (1991). The measure of abundance given by Dickie is also included:

common, very common: considerable number brought up in every haul of the dredge

rare: not more than 4-5 procured in one haul or as the result of several trials

very rare: not more than 4-5 in the entire excursion.

Using these same measures abundance data has also been given for the recent records. Additional records are from dives by Ulster Museum team in the Bay (Erwin et al., 1986) and from the shore by Williams (Williams, 1954), and Heriot Watt University (Wilkinson et al., 1988).

Table 1: Comparison of records of recent molluscan fauna in Castleward Bay with records by Dickie in 1858

*seen living recently elsewhere in Lough

Species	Dickie (1858)	Recent
<i>Leptochiton asellus</i>	common live	common live
<i>Callochiton septemvalvis</i>	v. rare live	v. rare live
<i>Tonicella rubra</i>	rare live	rare live
<i>Acanthochitona fascicularis</i>	v. rare live	*probable error for <i>A. crinitus</i>
<i>Helcion pellucidum</i>	common live	v. common live
<i>Tectura virginea</i>	common live	common live
<i>Tectura testudinalis</i>	rare dead	rare live
<i>Emarginula fissura</i>	common dead	rare live
<i>Gibbula cineraria</i>	v. common live	v. common live
<i>Gibbula magus</i>	common live	*dead
<i>Gibbula tumida</i>	common live	v. rare live
<i>Jujubinus miliaris</i>	rare live	
<i>Jujubinus montagui</i>	rare dead	dead
<i>Calliostoma zizyphinum</i>	v. common live	v. common live
var. <i>lyonsii</i>	rare live	v. common live
<i>Tricolia pullus</i>	common live	common live
<i>Lacuna crassior</i>	v. rare dead	*
<i>Lacuna vincta</i>	v. common live	v. common live
<i>Alvania beanii</i>	common dead	
<i>Manzonina crassa</i>	rare dead	*dead
<i>Alvania cancellata</i>	rare dead	
<i>Rissoa membranacea</i>	common dead	*dead
<i>Rissoa lilacina</i>		
var. <i>rufilabrum</i>	common dead	*
<i>Onoba semicostata</i>	common dead	*dead

<i>Turritella communis</i>	common live	*dead
<i>Bittium reticulatum</i>	common dead	*dead
<i>Capulus ungaricus</i>	rare dead	*dead
<i>Aporrhais pespelecani</i>	common live	*
<i>Polinices polianus</i>	common live	*
<i>Polinices fusus</i>	v. rare dead	
<i>Trivia</i> sp.	v. common dead	rare live, both <i>Trivia</i> spp. dead
<i>Eulima bilineata</i>	v. rare live	
<i>Melanella alba</i>	v. rare dead	
<i>Ilinia incrassata</i>	common dead	v. common live
<i>Buccinum undatum</i>	rare live	common live
<i>Neptunea antiqua</i>	rare live	*
<i>Boreotrophon truncatus</i>	v. rare dead	v. rare live
<i>Trophonopsis muricatus</i>	common dead	dead
<i>Ocenebra erinacea</i>	rare dead	*dead
<i>Oenopota rufa</i>	rare dead	*dead
<i>Oenopota turricula</i>	rare dead	
<i>Haedropleura</i> <i>septangularis</i>	rare live	
<i>Raphitoma linearis</i>	rare dead	*dead
<i>Chrysallida indistincta</i>	v. rare dead	*
<i>Turbonilla rufescens</i>	v. rare dead	
Praeger commented that from a remark in Jeffreys (1863-1869) it would appear to be var. <i>rufescens</i> .		
<i>Turbonilla lactea</i>	v. rare dead	*
<i>Acteon tornatilis</i>	v. rare dead	
<i>Retusa obtusa</i>	v. rare dead	*
<i>Cylichna cylindracea</i>	rare dead	
<i>Antalis entalis</i>	common live	*
<i>Jupiteria minuta</i>	v. rare live	
<i>Nucula nucleus</i>	common live	rare live
<i>Nucula nitidosa</i>	v. rare live	*
<i>Mytilus edulis</i>	common live	v. common live
<i>Modiolus modiolus</i>	common live	rare live
<i>Modiolula phaseolina</i>	rare live	*
<i>Ostrea edulis</i>	rare dead	*dead
<i>Anomia ephippium</i>	common live	rare live
<i>Pododesmus patelliformis</i>	rare dead	common live
<i>Limaria loscombi</i>	rare dead	
<i>Palliolum striatum</i>	v. rare dead	*
<i>Palliolum tigerinum</i>	rare dead	v. rare live
<i>Aequipecten opercularis</i>	common live	common live
<i>Pecten maximus</i>	common dead	common live
<i>Kellia suborbicularis</i>	rare live	rare live
<i>Thyasira flexuosa</i>	rare dead	*
<i>Lucinoma borealis</i>	common live	*dead
<i>Acanthocardia echinata</i>	common dead	*

<i>Cerastoderma edule</i>	common dead	v. rare live
<i>Parvicardium scabrum</i>	common live	v. rare live
<i>Parvicardium ovale</i>	v. rare dead	*
<i>Parvicardium exiguum</i>	rare live	*
<i>Parvicardium minimum</i>	v. rare dead	
<i>Astarte sulcata</i>	rare live	*dead
<i>Goodallia triangularis</i>	v. rare live	
<i>Arctica islandica</i>	rare live	*
<i>Spisula elliptica</i>	rare live	v. rare live
<i>Ensis ensis</i>	common dead	*
<i>Phaxas pellucidus</i>	rare live	fresh dead (Williams, 1954)
<i>Azorinus chamasolen</i>	v. rare dead	*
<i>Abra alba</i>	rare live	live, occasional (Williams, 1954)
<i>Abra prismatica</i>	v. rare live	*
<i>Gari fervensis</i>	common dead	dead (Williams, 1954)
<i>Gari tellinella</i>	rare live	v. rare live
<i>Circomphalus casina</i>	rare live	rare live
<i>Clausinella fasciata</i>	common live	rare live
<i>Timoclea ovata</i>	v. common live	common live
<i>Chamelia gallina</i>	v. rare live	*dead
<i>Dosinia lupinus</i>	abundant dead	*
<i>Tapes rhomboides</i>	common live	v. rare live
<i>Tapes aureas</i>	rare dead	*
<i>Venerupis senagalensis</i>	rare live	v. common live
<i>Corbula gibba</i>	rare live	*dead
<i>Mya truncata</i>	rare dead	v. rare live
<i>Hiatella arctica</i>	rare live	v. common live
<i>Barnea candida</i>	rare dead	dead (Williams, 1954)
<i>Thracia phaseolina</i>	rare dead	*

Additional species (all author, unless otherwise stated):

Living: *Lepidochitona cinereus*, *Tonicella marmorea*, *Ischnochiton albus*, *Diodora graeca*, *Patella vulgata*, *Margarites helicinus*, *Lacuna parva*, *L. pallidula*, *Littorina saxatilis*, *L. littorea*, *L. obtusata*, *L. mariae*, *L. nigrolineata* (Wilkinson et al., 1988), *Rissoa interrupta*, *R. parva*, *Cingula trifasciata*, *Skeneopsis planorbis*, *Lamellaria latens*, *Nucella lapillus*, *Mangelia coarctata*, *Omalogyra atomus*, *Rissoella opalina*, *R. diaphana*, *Odostomia unidentata*, *O. turrita*, *Brachystomia scalaris*, *Akera bullata* (Williams, 1954), *Tritonia hombergi* (Erwin et al., 1986), *Polycera quadrilineata*, *Ancula gibbosa*, *Dendronotus frondosus*, *Doto coronata*, *Doto fragilis*, *Cuthona concinna*, *Janolus cristatus*, *Eubranchius pallidus*, *Coryphella lineata*, *Flabellina pedata*, *Goniodoris nodosa*, *Archidoris pseudoargus*, *Jorunna tomentosa*, *Onchidoris muricata*, *O. bilamellata*, *Adalaria proxima*, *Crenella decussata*, *Modiolarca tumida*, *Musculus discors*, *Heteranomia squamula*, *Chlamys varia*, *Chlamys distorta*, *Ensis arcuatus*, *Crassostrea gigas*, *Spisula solida*, *Mysella bidentata*, *Macoma balthica*, *Turtonia minuta*.

Dead: *Gibbula umbilicalis*, *Alvania punctura*, *Raphitoma purpurea*, *Mangelia attenuata*, *Lima subauriculata*, *Spisula subtruncata*, *Macra corallina*, *Dosinia exoleta*, *Mya arenaria*.

Dickie (1857)	Recent records of 'Dickie species'			Additional records	Total recent records
50 live	28 live	8 dead	14 not seen	56 live	94 live
47 dead	10 live	14 dead	23 not seen	9 dead	31 dead

In total, 162 species (108 live) have been recorded from the Bay, 54% of those found in the whole of the Lough. The fauna itself is similar to that of Ballyhenry Bay, although the shore is not as diverse in habitat. Dickie found 97 species (using the modern taxonomic list) solely by dredging in Castleward Bay, whereas recent effort using several methods has recorded 125 species. The degree of overlap between the two sets of data is poor. Thirty seven species have not been seen dead or alive in the Bay since 1857, and 65 recently recorded species were not seen by Dickie. However, many of the recent species found were either largely from the littoral (which Dickie did not study) or nudibranchs collected by diving, Dickie apparently only recording shelled species. Most of the species that were commonly found by Dickie are still common or very common in the Bay. Only five species appear to have decreased significantly in abundance – *Gibbula tumida*, *Anomia ephippium*, *Parvicardium scabrum*, *Clausinella fasciata* and *Tapes rhomboides*. The first two of these species are abundant elsewhere in the Lough. There appears to be no obvious explanation for this decrease, as this part of the Lough is not, as yet, suffering from any severe effects of human activity. Ten of the species that Dickie found dead were recorded recently living in the Bay, and 25 have been found living elsewhere in the Lough. Four living species (*Jujubinus miliaris*, *Haedropleura sept-angularis*, *Jupiteria minuta*, *Goodallia triangularis*) have not been seen recently anywhere in the Lough, live or dead, although the habitat in the Bay is suitable. These and other 'dead' species (e.g. *Turbonilla rufescens*, often associated with maerl) may yet turn up. Maerl is well known to be a rich and diverse habitat for mollusca, and the maerl bed in the Bay has not, as yet, been fully studied.

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Comparison of Species in Coppiced and Unmanaged Woodland at the Loder Valley Reserve, Wakehurst Place, Surrey

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Introduction

Wakehurst Place and the Loder Valley Reserve are situated in the Sussex Weald about 28 km from the coast and the English Channel. The main gardens are located to the east of the Loder Valley on high ground, and the 80 hectare reserve surrounds an arm of the Ardingley Brook which is used as a reservoir and it therefore comprises mostly steep-sloped woodlands, wetlands and pasture. Much of the area still consists of climax forest species which have been established since about 2,500 BC and have been managed for centuries by coppicing (Schilling, 1982). During this century many mature trees were felled during both World Wars and replaced by non-native conifers, others were victim to the storms in 1987 and 1990. There is still some effort to re-establish native species, but many areas are either still unmanaged with conifers and/or damaged timber (Jackson, pers. comm.).

The conservation of the wide range of flora and fauna present in the Loder Valley Reserve is of considerable importance. There are a number of habitat types, and the accent is placed on protecting these communities in their natural surroundings. Whilst this is the case, a number of interesting and important rare species do occur, including snails and slugs. This can often indicate some peculiarity or specialisation of the habitat. Like the Wealden Bryophytes which are restricted to this area of SE England, there are also three 'Atlantic' snail species which have been found in the Loder Valley (Schilling, 1982). Snails and slugs are also of conservation value for other reasons, such as their link in the food chain, and their use as indicator species (Kerney & Stubbs, 1988).

Site descriptions

Due to the time restrictions only two sites were studied for

molluscs. A wide variety of suitable habitats exist, but it was decided that the richest yield of species would be found in damp primary woodland (Wardhaugh, 1989); for comparative purposes an adjacent stand of recently coppiced hazel was chosen. Both these sites provide a good range of microhabitats and types of vegetation.

Site 1

The coppiced area consists of a stand of mature oaks and hazels that were cut to the base in February of this year (1992). A rise heavily populated with bluebells leads onto the south-western edge of the area, and it is on a moderate west-facing slope. A grass track surrounds two sides of the area, predominantly at the higher northern edges; the oaks are also more predominant here than on lower ground. The hazel is cut back to a few centimetres above ground level, and very little regrowth had occurred when the site was visited in May and June. The understorey vegetation consists predominantly of short grasses and meadow flowers including bluebell, but there are also bare areas, a log pile from a recently felled tree in the lower western corner, boulders, pits and other suitable microhabitats for molluscs.

Site 2

At the western edge a dirt track leads uphill alongside the area of unmanaged woodland. The south-western end of the area is thickly forested and on a sharp incline; this is inaccessible. The ground profile becomes less steep in the southern end, before becoming only a gentle slope over most of the area that was surveyed. A stream runs from south-east to north but has several small tributaries, including one which has dried up, and a boggy area. Both the stream and a ditch which runs parallel to the dirt track lead to a culvert that passes under the track in the northernmost corner of the area. There are a few mature trees, mostly at the eastern end, but the vegetation consists mainly of scrub, ferns and uncoppiced hazel. There is a considerable amount of fallen timber, most of which is moss-covered. There are also marginal and aquatic plants alongside the ditch, although the stream is too shallow to support them. Large stones and rocks along the banks of the stream also provide a good habitat for slugs and snails.

Methods

Both sites were searched as thoroughly as possible without causing any damage to the area or the plants therein. Due to the nature of Site 2 this was not explored as thoroughly.

Soil/leaf samples were taken from each habitat in order to search more conscientiously for many of the smaller species. On the first visit to the sites the samples were collected in plastic bags and put through a series of sieves in the laboratory; on the second visit the samples were sieved in the field. Several contrasting litter types were selected from each site. These were:

Site 1	Site 2
1. At the base of a mature oak tree	1. Litter in tree stump
2. Clearing with vegetation cover of bluebells only	2. Small clearing
3. Southern end of area, north side of tree	3. Bank of stream
4. Next to log pile.	4. Amongst undergrowth.

Results

See Table 1.

Distribution of species on the sites surveyed

On both Site 1 and Site 2	36%
On Site 1 only	20%
Combined total of species on Site 1	56%
On Site 2 only	44%
Combined total of species on Site 2	80%

Discussion

All the species of mollusc which were found on both Site 1 and Site 2 are regarded as common. Two of the five species which were found only on Site 1 are regarded as rare, i.e. *Spermodea lamellata* and *Limax cinereoniger*. *L. cinereoniger* is an indicator species of ancient woodland and is disturbance sensitive (Kerney & Cameron, 1979). That it was found in the coppiced area may be due to two reasons:

Table 1: Results

Species	Site 1	Site 2	Other species recorded previously from	
			Loder	Valley
<i>Carychium minimum</i>			◆	
<i>C. tridentatum</i>			◆	
<i>Acicula fusca</i>			◆	
<i>Succinea putris</i>			◆	
<i>Oxyloma pfeifferi</i>			◆	
<i>Cochlicopa lubrica</i>		◆		
<i>Columella aspera</i>			◆	
<i>C. edentula</i>			◆	
<i>Vertigo substriata</i>			◆	
<i>Leiostryla anglica</i>			◆	
<i>Spermodea lamellata</i>	◆			
<i>Acanthinula aculeata</i>			◆	
<i>Punctum pygmaeum</i>	◆	◆		
<i>Discus rotundatus</i>	◆	◆		
<i>Arion ater</i>	◆	◆		
<i>A. lusitanicus</i>	◆			
<i>A. subfuscus</i>	◆	◆		
<i>A. silvaticus</i>		◆		
<i>A. hortensis</i> agg.	◆	◆		
<i>A. intermedius</i>	◆	◆		
<i>Vitrina pellucida</i>				◆
<i>Phenocolimax major</i>				◆
<i>Vitrea crystallina</i>		◆		
<i>Nesovitrea hammonis</i>		◆		
<i>Aegopinella pura</i>		◆		
<i>A. nitidula</i>	◆	◆		
<i>Oxychilus cellarius</i>				◆
<i>O. alliarius</i>	◆	◆		
<i>O. helveticus</i>		◆		
<i>Zonitoides excavatus</i>		◆		
<i>Z. nitidus</i>		◆		
<i>Limax cinereoniger</i>	◆			
<i>L. maximus</i>	◆	◆		
<i>L. marginatus</i>	◆			
<i>Deroceras laeve</i>				◆
<i>D. reticulatum</i>	◆			
<i>Euconulus fulvus</i>		◆		
<i>E. alderi</i>				◆
<i>Cochlodina laminata</i>				◆
<i>Macrogastra rolpheii</i>				◆
<i>Clausilia bidentata</i>				◆
<i>Trichia hispida</i>		◆		
<i>Cepaeu hortensis</i>		◆		

1. The coppicing was not sufficiently disruptive of the habitat to prevent this species from remaining there.
2. That it may have travelled the comparatively short distance (given that it is a large slug) from the unmanaged woodland to the coppiced area in search of a fresh food source.

It is significant that the log pile in Site 1 was from a recently felled oak tree, a species of primary woodland; given this and lack of disturbance to the area since the coppicing took place, option 2 seems the most likely explanation. Many species of mollusc travel considerable distances and there is no reason why *L. cinereoniger* should not do this.

Spermodea lamellata is a significant discovery. Like *L. cinereoniger* it is also an indicator of primary woodland, but it is a declining species with an Atlantic distribution (Kerney & Cameron, 1979), so it is important that a suitable habitat for it is maintained at the Loder Valley Reserve. A close relative of this snail, *Acanthinula aculeata*, which has a similar habitat requirement but a more widespread distribution, was not found on either visit. This is probably due to the very low densities at which it lives: 'an hour's careful searching in a suitable habitat ... might well yield only two or three specimens' (Wardhaugh, 1989).

Deroceras reticulatum, the netted slug, is considered to be one of the most serious British pest species. It was found on Site 1, probably due to the abundance of vulnerable plant material present. Specimens were also found mating on the path adjacent to both sites, and it is probable that it is usually present on both sites but had migrated due to the food source.

Arion lusitanicus was recorded for the first time from the area. It is a species which is increasing in numbers and has recently increased its range to some northern areas of Scandinavia. It is generally spread by man and as an omnivore (it is particularly fond of carrion from its own species) it can become a serious pest. The presence of these two pest species may be a significant factor in the prevention of regrowth of the hazel coppice.

Many of the species recorded are of catholic distribution, the remainder are woodland species. *Aegopinella pura* is partic-

ularly characteristic of deciduous woodlands, whilst both *Nesovitreia hammonis* and *Zonitoides excavatus* are found in coniferous and deciduous woodland (Kerney & Cameron, 1979), the latter species being restricted to acid soils only (Janus, 1982). The strawberry snail, *Trichia hispida*, is not in the least disturbance sensitive, so it is a little surprising that it was found only in the woodland area.

The majority of species which have been previously recorded for this area but which were not found on this survey are molluscs which are not found in the type of habitat surveyed. Of the six species which do inhabit woodland, the most likely reason for their absence is soil type. The presence of several species, especially *Z. excavatus*, has indicated that the soil is acidic, which almost certainly makes the habit unsuitable for some of the species with larger or thicker shells, especially the Clausilid snails *Cochlodina laminata* and *Clausilia bidentata*. Although fairly common they prefer the cover of walls and rocks. Similarly *Oxychilus cellarius* prefers damp shady places such as caves and is often found in human habitations. Another Clausilid, *Macrogasta rolpheii*, is a comparatively large snail (shell length 11 mm) and unlikely to have been overlooked so it was probably not present. This may have been due to the pH of the soil or to the recent dry conditions. The absence of *Acanthinula aculeata* has already been discussed, and *Leiostryla anglica* is a declining species which has not been found regularly at Wakehurst Place. Since it also occurs in marshes it may be present at another location within the gardens.

The remaining 13 species are all wetland species, so it is likely that most of them still occur elsewhere at Wakehurst Place except *Euconulus alderi* which has not been found since 1978. As a declining species it is likely that it is no longer found anywhere at this location.

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Acknowledgements

My grateful thanks to the staff of the Ecology Department, St Mary's College, Strawberry Hill; Mr Andrew Jackson, supervisor of the Loder Valley Reserve; and members of the Conchological Society of Great Britain and Ireland, especially Mr Michael Kerney, Honorary Non-marine Recorder. □



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Collectors in East Africa

No. 19: Supplement to Parts 2, 3 and 4

B. Verdcourt

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

In my accounts of Last, Hannington and Gordon I failed to list the species of molluscs described from their collections. This deficiency is remedied here. All types are in the British Museum (Nat. Hist.) save two.

Bulimus (Hapalus) associatus Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.157–9). *Curvella associata* (Smith).

Bulimus (Hapalus) disparilis Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (holotype 1885.5.25.75). *Curvella disparilis* (Smith). Smith also cites three Kirk specimens from Usagara as variants of the same species but he himself uses the word type for the Last specimen.

Bulimus (?*Buliminus*) *hanningtoni* Sow. III, 1889. Tanzania, Usagara, Hannington (syntypes 1907.11.21.78,79). *Edouardia hanningtoni* (Sow. III).

Bulimus (?*Cerastus*) *introversus* Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (not found in collection nor in index). *Pseudoglessula introversa* (Smith). (A photograph of the type appears in my paper on *Pseudoglessula* in *Arch. Moll.* **96**: 48, figs. 11,12 (1967)).

Bulimus (Cerastus) kidetensis Smith, 1890. Tanzania, Kidete, Emin and on plains within 50 miles of Mamboia, Last (syntypes 1890. 7.16.84–92). *Pseudoglessula kidetensis* (Smith).

Bulimus (Cerastus) lasti Smith, 1890. Tanzania, plains within a 50-mile radius of Mamboia, Last (syntypes 1885.5.25.13–15). *Pseudoglessula lasti* (Smith).

Bulimus (Cerastus) mamboiensis Smith, 1890. Tanzania, plains within a 50-mile radius of Mamboia, Last (syntypes 1885.5.25.24–27). *Pseudoglessula boivini* (Morelet).

Bulimus (Rhachis) quadricingulatus Smith, 1890. Tanzania,

plains within a 50-mile radius of Mamboia, Last (holotype 1885.5.25.20). *Rhachidina braunsi quadricingulata* (Smith) (perhaps ultimately *R. histrio quadricingulata* (Smith) since *braunsi* von Mts. probably = *histrio* Pfr. described from Pacific populations introduced from Africa).

Bulimus (Hapalus) subvirescens Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.160–4). *Curvella subvirescens*.

Bulimus (?Cerastus) uniplicatus Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.70–72). *Pseudoglessula uniplicata* (Smith).

Bulimus (Rhachis) usagaricus Smith, 1890. Tanzania, Usagara, Hannington (syntypes 1884.2.19. 44–46 and 58–59). *Rhachidina usagarica* (Smith).

Cyclostoma hanningtoni Sow. III, 1889. Tanzania, 'Equatorial Africa', Hannington (holotype 1907.11.21.139). *Tropidophora calcarea* (Sow. I).

Ennea aenigmatica Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.143–146). *Gulella aenigmatica* (Smith).

Ennea amicta Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.84–87). *Gulella amicta* (Smith).

Ennea consanguinea Smith, 1890. Tanzania, Kidete, Emin Pasha (syntypes 1890.7.16.130–7); Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.107–8). *Gulella consanguinea* (Smith).

Ennea curvilamella Smith, 1890. Tanzania, Mamboia, 4000–5000 ft. (syntypes 1885.5.25.113–117). *Gulella curvilamella* (Smith).

Ennea fortidentata Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (1885.5.25.105–6 syntypes of which the one with a red spot probably indicated by Connolly is selected as lectotype: Hkata (= Kidete) (syntype not found). *Gulella fortidentata* (Smith).

Ennea hanningtoni Smith, 1890. Tanzania, Usagara, Hannington (syntypes 1884.2.19.68–70); and Kirk (syntypes 1885.6.25.6,7); Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25. 103–4). *Gulella sexdentata* (von Mts.).

Ennea lendix Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25. 88–92; one specimen separated in a tube presumably a suggested lectotype). *Gulella lendix* (Smith).

Ennea microstoma Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (holotype (but labelled syntype) 1885.5.25.97). *Gulella microstoma* (Smith).

Ennea newtoni Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25. 93–96; one with a red spot probably indicated by Connolly is selected as lectotype). *Gulella newtoni* (Smith).

Ennea peculiaris Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (holotype ? card lists 1885.5.25.127–8 but there is only one specimen labelled holotype and it appears as if only one was ever present). *Gulella peculiaris* (Smith).

Ennea soror Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.123–6; one specimen separated in a tube presumably a suggested lectotype). *Gulella soror* (Smith).

Ennea subflavescens Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.99–102). *Gulella subflavescens* (Smith).

Ennea subhyalina Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (holotype 1885.5.25.98). *Gulella subhyalina* (Smith).

Hyalinia depressior Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.56–57). *Thapsia depressior* (Smith).

Hyalinia eminiana Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.52–55). *Thapsia eminiana* (Smith).

Hyalinia hanningtoni Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.58–59). *Thapsia hanningtoni* (Smith).

Hyalinia lasti Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.4–6). *Thapsia lasti* (Smith).

Hyalinia lasti var. *pellucida* Smith, 1890. Tanzania, Mamboia, 4000–5000 ft., Last (syntypes 1885.5.25.48–51). *Thapsia lasti pellucida* (Smith). The type card index in the BM lists this as var. *pallida* but I have checked with the original publication. It is not mentioned by von Martens nor do I list it in my check-list.

Ledoulxia gwendolinae Preston, 1910. Tanzania, Usagara, almost certainly Hannington (holotype MRAC Tervuren, paratypes 1884.2.19.30). *Trochonanina gwendolinae* (Preston). Last also collected this species 'on the plains within 50 miles of Mamboia', 1885.5.25.1-3.

Stenogyra (Subulina) emini Smith, 1890. Tanzania, Mamboia, 4000-5000 ft., Last (syntypes 1885.5.25.151-4, a suggested lectotype labelled 'holotype' is separated in a tube). *Subulina emini* (Smith).

Stenogyra (Subulina) lasti Smith, 1890. Tanzania, Mamboia, 4000-5000 ft., Last (syntypes 1885.5.25.155-6). *Subulina lasti* (Smith).

Stenogyra (Subulina) mamboiensis Smith, 1890. Tanzania, plains within 50 miles of Mamboia, Last (syntypes 1885.5.25.38-40). *Subulina mamboiensis* (Smith).

Stenogyra (Opeas) stenostomum Smith, 1890. Tanzania, Mamboia, 4000-5000 ft., Last (? holotypes 1885.5.25.150). '*Opeas*' *stenostomum* (Smith). A label says one syntype but only one specimen collected?).

Stenogyra (Subulina) subcarinifera Smith, 1890. Tanzania, plains within 50 miles of Mamboia and also at 4000-5000 ft. (syntypes 1885.5.25.18,19). *Pseudoglessula subcarinifera* (Smith).

Stenogyra (Subulina) usagarica Smith, 1890. Tanzania, Usagara, Hannington and Kidete, Emin Pasha (syntypes 1890.7.16.121.126). *Subulona usagarica* (Smith) (probably a *Ceras*) (the type box label mentions only Emin but the original description gives both collectors).

Streptaxis mamboiensis Smith, 1890. Tanzania, Mamboia, 4000-5000 ft., Last (syntypes 1885.5.25.76,77 of which the one with a red spot probably indicated by Connolly is selected as lectotype). *Gonaxis mamboiensis* (Smith).

Streptaxis ordinarius Smith, 1890. Tanzania, Mamboia, 4000-5000 ft. Last (syntypes 1885.5.25.78-83). *Gonaxis denticulatus* (Dohrn).

Trochonanina episcopalis Smith, 1890. Tanzania, Usagara,

Hannington (syntypes 1884.2.19, 28-29 and 33-35). Same (the bracketing of the authority in my checklist is an error).

Trochonanina mamboiensis Smith, 1890. Tanzania, Mamboia, 4000-5000 ft., Last (syntypes 1885.5.25.60-62). ?*Sitala leroyi* (Bgt.).

As can be seen from the list, Last made one of the most valuable contributions to East African conchology. His collection was particularly rich in small streptaxids and as I know from experience such a collection is not to be made casually; rather it involves grubbing around on one's hands and knees for many hours and it is clear that Last was genuinely interested. Many of his species have never been recollected since the Nguru Mountains have scarcely been revisited by a serious snail collector.

Geographical notes

Mamboia, 4000-5000 ft. There are two places called Mamboya within 150 km of each other but the one at 6°17'S, 37°08'E is the one where the mission was built and more or less the correct altitude; at that time it would have been in dense evergreen forest. The Nguru Mountains are situated between the Usambara Mountains and the Uluguru Mountains and have affinities with both.

Mamboia, plains within 50 miles radius of. It seems likely the specimens with this locality were collected on roads or tracks radiating from Mamboya. These include the road north-east to Handeni as far as just north of Turiani but this is hardly likely to have been called plains; the road east to Mpwapwa but most likely of all the road south-east to Morogoro across the Mkata Plains. The track from Bagamoyo, then the important port, ran near the mission of Mamboya to Mpwapwa.

Usagara. A diffuse area between Ukami and Ugogo more or less bounded by the Rubeho Mountains, Uluguru Mountains, Mpwapwa, Mamboya and Kidete.

*

I have dealt with Gordon's collection separately since it comprises freshwater species from a different part of the territory.

Ampullaria gordonii Smith, 1892. Tanzania, south end of Lake Victoria, Gordon (holotype 1892.8.27.4). *Pila ovata* (Olivier).

Ampullaria nyanzae Smith, 1892. Tanzania, south end of Lake Victoria, Jordan's Nullah, Gordon (syntype, no number on the single BM specimen; lectotype and further syntype in coll. T. Pain who stated (1961) that the type could not be located in the BM). *Pila ovata* (Olivier).

Planorbis victoriae Smith, 1892. Kenya/Uganda, north end of Lake Victoria, Gordon (syntypes 1892.8.27.34–37). *Biomphalaria choanomphala* (von Mts.).

Sphaerium nyanzae Smith, 1892. Kenya/Uganda, north end of Lake Victoria, Gordon (syntypes 1892.8.27.38–40). Same.

Two other freshwater species were collected by Hannington:

Viviparus jucundus Smith, 1892. Lake Victoria, Hannington (neither type card nor specimens found). *Bellamya jucunda* (Smith).

Viviparus victoriae Smith, 1892 (= *Paludina* sp. of Smith, 1890). Tanzania, south shores of Lake Victoria (syntypes Emin 1890.7.16.144–146 and Hannington 1884.2.19.115–121). *Bellamya trochlearis* (von Mts.).

It seems likely that *Bulimus* (? *Buliminus*) *gomezi* Sowerby III, 1889, if indeed the locality given (Tanzania, Usagara) is correct, was also collected by Bishop Hannington, but I (1961) have already expressed doubts about it; the material came from Da Costa's collection like several other Hannington specimens but neither the material, type card nor original publication mention Hannington's name in this case (syntypes 1907.11.21.148 and 1937.12.30.3769–70; a note says 'largest is the type'; presumably 148 and I hereby select that as lectotype).

References

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- Preston, H.B.**, 1910. Additions to the non-marine molluscan fauna of British and German East Africa and Lake Albert Edward. *Ann. Mag. nat. Hist.* Ser. 8, **6** : 526–536, pl. 7–9.
- Smith, E.A.**, 1890. List of land- and freshwater- shells collected by Dr Emin Pasha in Central Africa, with descriptions of new species. *Ann. Mag. nat. Hist.* Ser. 6, **6** : 146–168, pl. 5,6.
- Smith, E.A.**, 1892. On the shells of the Victoria Nyanza or Lake Oukerewe. *Ann. Mag. nat. Hist.* Ser. 6, **10**: 121–128.
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- Sowerby III, G.B.**, 1889. Description of thirteen new species of land-shells with a note on *Buliminus fulminans*. *Proc. zool. Soc.* 1889: 577–582.
- Verdcourt, B.**, 1961. Notes on East African Enidae. *J. Conch. Lond.* **25**: 9–14.

Addendum

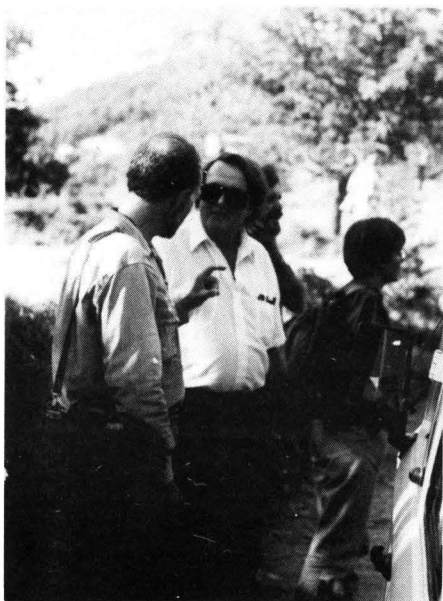
To my list of references concerning G.A. Fischer may be added the following which is accompanied by a particularly important map useful for tracing old localities in parts of Kenya which have long disappeared from modern maps:

- Denhardt, C.**, 1881. Erkundigungen im äquatorialen Ost-Afrika. *Petermann's Geogr. Mitt.* **27**: 11–19, 130–143, map 1.

Index to collectors dealt with so far in the Conchologists' Newsletter

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**Eleventh International Malacological Congress,
Siena, Italy
30 August – 5 September 1992**



(Left)
Dr Giusti
(Congress President)
and Dr Davis (USA)
on the field excursion

(Below)
Looking for fossil molluscs
on the field excursion



Twelfth International Malacological Congress, Vigo, Spain, 1995

The first circular announcing the Congress has been issued. It will be from Sunday, 3 September – 9 September 1995 at Vigo on the Atlantic coast of Spain. There will be six symposia, some general marine and non-marine sessions and posters.

Further details and forms from:

Twelfth International Malacological Congress

Dr A. Guerra

Instituto Investigaciones Marinas

Eduardo Cabello 6

36208 Vigo, Spain.

Annual General Meeting 1994

Members are reminded that they can nominate candidates for election to Council.

Rule No. 12: Candidates for nominations to the Council shall be paid up members of the Society and shall be nominated by two members. Nominations, other than those made by Council itself, shall be sent in writing to the Hon. Secretary at least six weeks before the AGM, and shall be accompanied by a signed declaration of the candidate's willingness to serve.

Note: Nominations must be received by the Hon. Secretary (Mrs S. Davies, [REDACTED], Portishead, Bristol, [REDACTED]) **not later than 31 December 1993.**

Conchological Society Field Trip to Kew Gardens – 6 March 1993

Jane Reynolds,
Holloway, London

A total of 17 members attended what was, to my knowledge, the first Conchological Society field trip to the Royal Botanic Gardens, Kew. We were very fortunate in that Bernard Verdcourt, botanist from the Herbarium here and long-standing member of the Society, was able to attend, as although I have been working and studying at Kew for two and a half years, I was not completely sure of what molluscs we could expect to find, as is often the case when one is working in an area and has little spare time.

Our first port of call was the Princess of Wales Conservatory. Some colleagues had recently asked me to identify some specimens from there, which they had found during the course of their work. These were *Lehmannia valentiana*, a slug from the Canary Islands, and *Zonitoides arboreus*, a North American snail found after having eaten its way out of a Venus fly trap (*Dionaea muscipula*)! The wealth of species that the group found, however, exceeded all expectations. Two of the water snails found in the Koi pond were undoubtedly tropical, but have yet to be positively identified as this is a particularly difficult area. Some of the land snails also proved quite difficult to name, but it now seems fairly clear that at least one of the specimens was *Afropunctum seminum* (Morelet). This tropical African species has been discovered in glasshouses on the Continent, but this is the first British record of it. Two members of the party discovered an extremely small slug amongst the bark chips, and regrettably this died before it reached a sufficient size to be dissected. There were several theories as to its identity as it appeared to have no mantle. This may have indicated that it was a member of a tropical family such as Philomycidae, Veronicellidae or Rathousidae which have mantles covering the whole of their bodies. It may also have been a slug-like insect larvae, or simply

too small to distinguish the mantle. More specimens of this animal will be sought out. Other specimens recorded in the Princess of Wales Conservatory included both native and tropical species, and some which are only as yet identified to family level. Those species which are considered positively named are:

Carychium minimum

Carychium tridentatum

Vallonia pulchella (or possibly *V. excentrica* although the former is more commonly found under glass)

Zonitoides excavatus

Oxychilus draparnaudi

Lamellaxis clavulinus

Subulina striatella

and of course those already mentioned.

The next place visited was the Marine Display in the Palm House basement, more a chance for the Society members to get a 'behind-the-scenes' look at the interesting molluscs there than to do any collecting. The cuttlefish were particularly popular, as were the display's only terrestrial molluscs, the *Littorarias* in the Mangrove Swamp tank which had come via Dr David Reid of the Conchological and Malacological Societies after I contacted him in search of a snail to eat the algal growth on the plants.

Only a short period of time was spent searching the Palm House itself as it was by then lunchtime and we still had to cover quite a lot of ground. The mollusc fauna proved not to be as rich as in the Princess of Wales Conservatory due to its having been restored within the last five years, but the ubiquitous *Subulina striatella* and two other common species *Lamellaxis clavulinus* and *Pleurodiscus balmei* were all present in abundance.

The Queen's Cottage Grounds proved to be a very worthwhile site to visit. We found specimens of a number of species mostly around the gravel pit area. Four of the species found here, *Punctum pygmaeum*, *Arion distinctus*, *A. intermedius* and *A. subfuscus* were all new records for Kew, and we were also lucky enough to find an example of *Testacella scutulum*, a carnivorous slug which leads a subterranean existence, but which

may sometimes be found nearer the surface in damp weather hunting worms. I have frequently found this species in several different areas of Kew during digging operations but it is often regarded as elusive, and certainly at least one member of the party had never seen one before even in a quarter century of slug-hunting! We also found some freshwater shells of *Lymnaea stagnalis* amongst weed from the Conservation area dew pond which had been dumped here.

Most of the remaining species found around here were duplicated throughout the rest of the Cottage Grounds and probably typical of most of the gardens. The species present include the following:

<i>Milax sowerbyi</i>	<i>Arion hortensis</i>
<i>Deroceras caruanae</i>	<i>A. ater</i> agg.
<i>D. laeve</i>	<i>Trichia striolata</i>
<i>D. reticulatum</i>	<i>Cepaea hortensis</i>
<i>Milax budapestensis</i>	<i>Discus rotundatus</i>
<i>Oxychilus draparnaudi</i>	<i>Helix aspersa</i>
<i>O. cellarius</i>	<i>Vitrina pellucida</i>
<i>O. alliarius</i>	<i>Aegopinella nitidula</i>

The most exciting and significant find of the visit was *Laciniaria biplicata*, an attractive sinistral snail with a very restricted distribution. It is common on the verges of the Observation Road and Isleworth Ait, but otherwise mostly extinct. Several years ago an important site for this mollusc at the north end of Barnes Railway Bridge next to the Civil Service Boat House was threatened by Richmond Council's plans for a proposed road bridge and later cementing over of the retaining wall there, although the site does still exist. At the time the Conchological Society mounted a rescue operation, collecting and relocating 850 specimens elsewhere, mainly the Eton College Bird Sanctuary at Windsor. Incidentally the proposed site for the Public Records Office during the original plans was on one of the other sites where *Laciniaria* was present, and this development was successfully relocated several hundred yards away. The relocation of the snails themselves has not proved to be quite such a success. Although they do not appear to be especially fussy

about the condition of a site, i.e. they like the presence of litter and other debris brought in on the tide, including cans, bottles, plastic bags, etc., they are very sensitive to disturbance and need both quantities of dead wood on which they feed and nettles for cover as they are diurnal, unlike many snails. The colony at the edge of the golf course in Kew's Conservation area has evidently been there for many years as it is thriving and active and on a subsequent visit both adults and juveniles of all ages were found to be present. This location could prove to be of extreme value in protecting *Laciniaria* in years to come as both Queen Victoria's bequest of the area and Kew's own conservation policy means that the area should be left in perpetuity. □

Election Results

At the AGM on 20 March the ballot papers for the election of officers of the Society and council members were counted. Mr F. Woodward, having completed his term as President, stood down and Dr B. Colville was elected as the new President. All other officers were re-elected and will serve until the next AGM in March 1994. Mr E.G. Philp, Mr S. Tracey and Dr R.C. Honnor were elected to Council to replace retiring members and will remain on Council until March 1996.

Applications and Opinions published in the *Bulletin of Zoological Nomenclature*

The following Applications and Opinions were published on 30 June 1993 in Vol. 50, Part 2 of the *Bulletin of Zoological Nomenclature*. Comment or advice on these Applications is invited for publication in the *Bulletin*, and should be sent to the Executive Secretary, ICZN, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, UK.

Applications

Case 2820 *Turbo politus* Linnaeus, 1758 (currently *Melanella polita*; Mollusca, Gastropoda): proposed conservation of usage of the specific name, so conserving the specific name of *Buccinum acicula* Müller, 1774 (currently *Cecilioides acicula*).

Anders Warén

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*Nationaal Natuurhistorisch Museum, Mollusca, Postbus 9517,
NL 2300 RA Leiden, The Netherlands.*

Abstract. The purpose of this application is to conserve the current universal understanding and usage of the specific name of the European prosobranch mollusc *Turbo politus* Linnaeus, 1758 (family EULIMIDAE Philippi, 1853) for which a neotype has been designated. Recently discovered syntypes of *T. politus* are conspecific with *Buccinum acicula* Müller, 1774, the type species of *Cecilioides* Férussac, 1814 (Pulmonata, family FERUSSACIIDAE Bourguignat, 1883). *C. acicula* is found around the Mediterranean and in western Europe, and has been introduced into the eastern USA and Bermuda. Both the names *Cecilioides* and *B. acicula* have been placed on Official Lists (Opinion 335; March 1955).

Opinions

Opinion 1718

Balea Gray, 1824 (Mollusca, Gastropoda): conserved.

Opinion 1719

Xeromunda Monterosato, 1892 (Mollusca, Gastropoda): *Helix candiota* Pfeiffer, 1849 designated as the type species.

Opinion 1720

Cycloceras M'Coy, 1844 (Mollusca, Nautiloidea):
C. laevigatum M'Coy, 1844 designated as the type species, and
a neotype designated for *C. laevigatum*.

Opinion 1721

BELEMNITIDAE Owen, 1838 (Mollusca, Coleoidea): ruled to
be unavailable; *Belemnites* Lamarck, 1799 and *B. paxillosa*
Lamarck, 1801 suppressed.

Call for nominations for new members of the International Commission on Zoological Nomenclature

The following members of the Commission reach the end of their terms of service at the close of the XXV General Assembly of the International Union of Biological Sciences to be held in Paris in September 1994: Dr F.M. Bayer (USA, Corallia); Prof J.O. Corliss (USA, Protista); Prof Dr G. Hahn (Germany, Trilobita); Prof Dr O. Halvorsen (Norway, Parasitology); Dr Ya. I. Starobogatov (Russia, Mollusca); Dr V.A. Trjapitzin (Russia, Hymenoptera).

The addresses and specialist fields of the present numbers of the Commission may be found in the *Bulletin of Zoological Nomenclature*, 50(1) (March 1993). Under Article 3b of the Commission's Constitution a member whose term of service has ended is not eligible for immediate re-election unless the Council of the Commission has decided to the contrary.

The Commission invites nominations, by any person or institution, of candidates for membership. Article 2b of the Constitution prescribes that:

'The members of the Commission shall be eminent scientists, irrespective of nationality, with a distinguished record in any branch of zoology who are known to have an interest in zoological nomenclature'.

(It should be noted that 'zoology' here includes the applied biological sciences (medicine, agriculture, etc.) which use zoological names.)

Nominations made since June 1990 will be reconsidered automatically and need not be repeated. Additional nominations, giving the date of birth, nationality and qualifications (by the criteria mentioned above) of each candidate should be sent by 1 June 1994 to: *The Executive Secretary, International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, UK.* □

Conchological Society of Great Britain and Ireland

Minutes

1038th (Ordinary) meeting held on 18 January 1992
in the Demonstration Room of the Natural History Museum at 2.30 pm.

Announcements of deaths: The death was announced of Mr A.G.H. Osborn.

In the chair: Mr F.R. Woodward with 46 members and friends present.

Apologies for absence: Dr R.C. Preece, Dr M.J. Willing, Ms J.E. Reynolds, Mrs N.F. McMillan, Mr S.P. Dance, Mr T.E. Crowley, Dr J.E. Chatfield, Miss J.M. Nelson.

Minutes of the last meeting (of 14 December 1991): Read and accepted.

Lecture of the day: Mr Tony Swann (Wheldon and Wesley):

'Conchological Books, a Bookseller's Perspective'

Announcements and correspondence:

1. The location of the 16 May indoor meeting has been changed from Glasgow to Dunoon.
2. Mrs N.F. McMillan has been awarded an Honorary MSc by Liverpool University. She has also been awarded an MBE.

Meeting closed at 5.05 pm.

Appendix: Members' exhibits:

- Mr J. Llewellyn-Jones *Ensis americanus* found in the Thames estuary, Canvey Point, Essex.
- Mr F.R. Woodward Laskey, M/S notebook of conchology works circa 1808 AD and Catalogue of Hunterian.
J.E. Hartley, *Rambles in Search of Shells* and his collectors catalogue.
- Wheldon & Wesley Perry Conchology.
- Mr C.P. Palmer and Mr T. Pain Adherent epifauna on living and fossil bivalve molluscs.
- Mr J. Llewellyn-Jones A number of conchological books (British marine), produced over the last century, including Jefferies, Hanley and Turton.
- Mr K. Brown Shell books:
R.T. Abbott, *Seashells of S.E. Asia*
Robert Lipe, *Marginellas*
R. Lipe & R.T. Abbott, *Living Seashells of the Caribbean and Florida Keys*.
- Miss J.T. Sawyer Collection of shells from Barton beds, mostly fossil, some modern, made by an amateur many years ago.
- Mr D.C. Long Two books.
- Mrs J.M. Light Alder & Hancock, 1845-1855 *British Nudibranchiate Mollusca*, a Monograph.

- Dr B. Verdcourt A selection of books on Mollusca:
Pilsbry Manual (2); Steenberg (Maillots), *Journal de Conchologie* Vol. 18, Jeffreys Vol. 5 and *Atlas to Moquin Tandon*.
- Mrs S. Davies Help please: foreign shells for identification.
- Mr T. Pain Monograph of *Ampullaria* R.A. Philippi, 1851.



**1039th (Ordinary) meeting held on 15 February 1992
in the Demonstration Room of the Natural History Museum at 2.30 pm**

In the chair: Mr F.R. Woodward with 31 members and friends present.

Apologies for absence: Mrs S. Davies, Dr R.C. Preece, Mr P. Negus, Ms J.E. Reynolds, Mr M.F. Symonds, Dr B.F. Coles, Mrs N.F. McMillan, Mr S.P. Dance, Mrs E.B. Rands, Dr A.J. Rundle, Mr D.G. Rands, Mrs Long, Dr M.J. Willing, Rev. G.E.H. Long.

Minutes of the last meeting (of 18 January 1992): Read and accepted.

Matters arising:

- Mr Woodward has written to Mrs McMillan to congratulate her on receiving the MBE and an MSc. Mrs McMillan has now written back appreciatively saying what great help she has got from the CSGBI in the past.
- Dr Chatfield is preparing an obituary for Mr A.G.H. Osborn for the *Journal*.
- Mr T. Swann of Wheldon & Wesley has submitted a script of his talk to the Society in January.

Lecture of the day: Dr Andrew Johnson, 'Environment and Evolution in Gryphaea'.

Any other business:

1. A reminder was given about the September 1992 Mollusc conference in Glasgow.
2. It was announced that the Malacological Society is auctioning salmon fishing rights on the River Frome in order to raise funds for itself.
3. Mr Woodward spoke about instances of illegal importation of red-tailed crayfish into Scotland and of the risk of introducing disease to our native crayfish. Species of freshwater and marine molluscs are also entering this country illegally.
4. Mr Woodward spoke about alternative arrangements for the AGM should he be in Moscow at the time.
5. Mr Palmer said that an informal representation had been made to the Natural History Museum about the state of the Demonstration Room. An inconclusive response had been obtained from the management.

Appendix: Meeting closed at 5.00 pm.

Members' exhibits:

- Dr B. Colville North American freshwater snails by J.B. Burch.
- Mr I. Killeen *Unio valdensis* from the Wealden of the Isle of Wight.

- Dr J. Chatfield Paper on snails in *Vetinerary Record*.
Article in *Countryside* magazine on 'Eccentric Collectors – The British Natural History Tradition'.
Leaflets on European meetings.
- Mr F. Woodward BRISC Chiton Survey and Carboniferous chitons from Scotland.



**1040th (Annual General) meeting held on 21 March 1992
in the Demonstration Room of the Natural History Museum at 2.30 pm.**

Announcements of deaths: The death was announced of Mr L. Cram, member since 1990.

In the chair: Mr D.C. Long with 43 members present.

Apologies for absence: Mr F.R. Woodward, Mrs J.M. Light, Dr B. Colville, Mr E.G. Philp, Mrs N.F. McMillan, Mr S.P. Dance, Mr T.E. Crowley, Dr J.E. Chatfield, Mr A.P. Dow.

Appointment of scrutineers: Mrs C.J. Pain and Mr D.R. Worth were appointed to count the postal vote.

Minutes of the last meeting (of 15 February 1992): Read and accepted.

Nomination and election of new members: Two members were elected:

- Mr A.R. Walker, [REDACTED] Swansea, West Glamorgan, Wales [REDACTED]
- Mr J. Lucey, Environmental Research Unit, Regional Water Laboratory, Butts Green, Kilkenny, Ireland.

Report of the Council by Acting Hon. Secretary: Read by Mrs S. Davies and accepted.

Report of the Hon. Treasurer: Read by Mr A.D. Seccombe and accepted.

Report of the Hon. Non-marine Recorder: Read by Dr M.P. Kerney and accepted.

Report of the Hon. Marine Recorder: Read by Mr D.R. Seaward for Mrs J.M. Light and accepted.

Report of the Hon. Programme Secretary: Read by Mr I.J. Killeen and accepted.

Report of the Hon. Conservation Officer: Read by Dr M.J. Willing and accepted.

Mr Long thanked various members of the Society for the work they have done. Special thanks went to Mr Negus, our retiring Newsletter Editor of long standing. Mr Negus was presented with a book and a cheque donated by Society members.

Members' exhibits: Introduced by Mr T. Pain.

Presidential Address: Mr Fred Woodward, 'Shells, Books and Science'. Due to his absence in Russia the address was given by means of a video-recorder.

Announcements and correspondence: A new publication was available for inspection: *Henry and Arthur Adams New Molluscan Names* by A. Trew, National Museum of Wales (1992), ISBN 0 7200 0359 8 at £7.50. This book contains a bibliography and a list of 2800 new names introduced by the two brothers. Available from the above institution.

Election of auditors: It was proposed from the Chair and carried that Mr N. Light and Mr D. Worth be elected.

Results of the postal ballot: The following were elected:

Officers :	President	Mr F.R. Woodward
	Hon. Secretary	Mrs S. Davies
	Hon. Treasurer	Mr A.D. Seccombe
	Hon. Editor	Dr R.C. Preece
	Hon. Newsletter Editor	Mr P. Lee
	Hon. Non-marine Recorder	Dr M.P. Kerney
	Hon. Marine Recorder	Mrs J.M. Light
	Hon. Programme Secretary	Mr I.J. Killeen
	Hon. Conservation Officer	Dr M.J. Willing

Council members: The following were elected for a 3-year period:

Mrs E. Platts
Miss J.M. Sawyer
Miss E.F.A. Fogan

Meeting closed at 4.55 pm.

Appendix: Members' exhibits:

- Dr M.P. Kerney New Non-marine Atlas: A few maps showing progress since 1976.
- Mr E.O. Bishop Some landsnail queries from the Eastern Mediterranean.
- Dr B. Verdcourt A New Zealand wine label 'Nautilus'.
Mediterranean Seafood, A Davidson
Original drawings for *Snailly Verse*, P. Halliday.
Xerox of chapter on *Cerion* in S.J. Gould's book
The Flamingo's Smile.
- Mr D.W. Guntrip *Paludinella litorina* diagram for new atlas..
- Mr D.C. Long Australian marines and ammonites.
- Mr K. Brown Press cuttings re medical use of piddocks.
The genus *Latirus*.
- Miss E. Fogan Two recent publications from Spain on molluscs.
- Mr J.E. Llewellyn-Jones Books illustrating and describing *Margaritifera margaritifera*. □

June Chatfield's Mollusc Course

A weekend course looking at snails and slugs in the North Downs at Juniper Hall, Dorking, which has a rich fauna including Roman snails.

Friday to Sunday, 1- 3 October 1993.

Residents £85, Non-residents £55. Reduced rate for FSC members.

Details and bookings:

The Warden, Juniper Hall Field Centre, Dorking, Surrey RH5 6DA

Additions and amendments to Seaward (1990):
Distribution of the marine molluscs
of north west Europe

The work of the Conchological Society's marine census was brought together and published in 1982 as the *Sea Area atlas of the marine molluscs of Britain and Ireland* (ed., D.R. Seaward) consisting of 746 dot maps for all the marine and brackish-water species. In the absence of any comprehensive and modern nomenclature, the names and taxonomic order used were fairly conservative.

By 1990 it was necessary to update the *Atlas* to incorporate the large amount of additional data thereby stimulated, and the opportunity was taken to widen the area covered to include the adjacent North Sea and continental coasts from Bergen to Brest. To assist comparison with the *Atlas* the species arrangements and names were used, but names appearing in modern British and European checklists were now incorporated where different. Extending the area increased the number of species to well over 1000. This work was published by the Nature Conservancy Council in December 1990 as the *Distribution of the marine molluscs of north west Europe* (ed., D.R. Seaward) (MMNWE).

A new datum has now been drawn in the Society's marine census at 1 January 1991, separating pre-1991 and post-1990 records (see below). As MMNWE will be regarded as describing the distribution of marine molluscs pre-1991, it is necessary to add records which accrued between preparation and publication of MMNWE. These additional records have been collated in a supplement to MMNWE, along with a few other additions and amendments.

The supplement includes the following:

1. A concordance with the *Checklist of British marine molluscs* by Smith & Heppell (1991), covering differences between that work as published and the draft version used in the preparation of MMNWE.
2. Amendments to the North Sea/Baltic boundary, and proper incorporation of the important work of the two Wikander surveys off south Norway.

3. Addition of pre-1991 records notified to the marine recorder or confirmed too late for inclusion in MMNWE.

4. Errata.

The supplement has been published as *Joint Nature Conservation Committee Report*, No. 165, and is now available, free of charge, from:

Colin McLeod, Publications Manager

Marine Conservation Branch

at the JNCC address below.

The original *Distribution of marine molluscs of north-west Europe* is still available at its original price of £9.50 + £2.00 p&p. Conchological Society members can buy the book at the special members' price of £5.00 + p&p. Orders for the book, which comes complete with the *Additions and Amendments* supplement, should be sent to:

Natural History Book Service Ltd

2 Wills Road

Totnes, Devon, TQ9 5XN, UK.

Anyone claiming a member's discount should inform the NHBS when they place their order.

A catalogue of JNCC publications is available from:

Publications Branch

JNCC

Monkstone House, City Road

Peterborough, PE1 1JY, UK.

Diary of Meetings

The diary is presented in date order and includes both meetings of the Conchological Society of Great Britain and Ireland and meetings of molluscan interest run by other organisations. Fuller details of Conch. Soc. field meetings are given on page 239.

14–16 September, London: Malac. Soc. Centenary Symposium entitled 'Origin and Evolutionary Radiation of the Mollusca'. Details from John Taylor, Dept. of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD.

17 September, London: Malac. Soc. meeting entitled 'Evolution and Systematics of Patellidae'. Details from John Taylor (see above).

18–19 September, South Devon: Conch. Soc. field meeting led by David Bolton (Tel. [REDACTED]) and Ian Killeen (Tel. [REDACTED]).

1–3 October, Juniper Hall, Dorking: 'June Chatfield's Mollusc Course'. Details on page 235 of this newsletter.

16 October, London: Conch. Soc. indoor meeting, 'Museum mollusc collections and their curation' by Miss Alison Trew. The Natural History Museum at 14.30.

23 October, Reading: Conch. Soc. field meeting led by Rosemary Hill (Tel. 0734 665160).

20 November, London: Conch. Soc. indoor meeting, 'Mangrove littorinids: polymorphism, inference and experiment' by Dr Laurence Cook. The Natural History Museum at 14.30.

27 November: Conch. Soc. Molluscan Workshop. Humphrey Rooms, Northampton. Contact Ian Killeen (Tel. [REDACTED]) for details.

11 December, London: Conch. Soc. indoor meeting, 'Snails: a horticultural nightmare?' by Miss Jane Reynolds. The Natural History Museum at 14.30.

1994

15 January, London: Conch. Soc. indoor meeting. Speaker to be arranged. The Natural History Museum at 14.30. □

Field Meetings 1993

Hon. Programme Secretary:

Ian Killeen

Felixstowe, Suffolk,

Tel.

Important

Please remember to inform the leader if you are attending a field meeting.

Saturday, 18 and Sunday, 19 September

SOUTH DEVON

Leaders: Ian Killeen (Tel.)

and David Bolton (Tel.)

A weekend meeting based in the Salcombe area of South Devon. There are a number of rich shores in the area and the land molluscs include the local specialities, *Hygromia limbata* and *H. cinctella*.

Members should make their own accommodation arrangements around Kingsbridge or Salcombe. Details of the itinerary and meeting places from Ian Killeen.

Saturday, 23 October

THATCHAM, BERKSHIRE

Leader: Rosemary Hill (Tel.)

An opportunity to visit a wetland and two old woodlands in the valley of the river Kennet.

Thatcham Reedbeds (Grid Ref. SU 500668) is an extensive wetland west of Thatcham station belonging to Newbury District Council. Bowdown Woods (SU 504657) and Baynes Reserve (SU 512652) belong to the Berkshire Buckinghamshire and Oxfordshire Naturalists' Trust and lie between the reedbed and Greenham Common airfield. There are streams and wet flushes in both woods. Uncommon molluscs (*Limax cinereoniger* and *Phenacolimax major*) have been recorded from these woods.

Meet at Thatcham Station (SU 527663) at 10.30. There are regular trains from Paddington.

Gorgona, South America

This island lies off south-western Colombia. John Gould is familiar with the area having recently returned from a two-and-a-half year spell in Popayán. He will be returning there in October and is willing to make arrangements for visits, permits, etc. He is keen to hear from anyone interested in a field trip to this exotic location. He can be contacted at:

[REDACTED]
Yeroskipos
Paphos District
CYPRUS

Tel. ([REDACTED])

Marine Recording

A Revision of *The Marine Mollusca of Wight (Sea Area 15): A Provisional Atlas* is under way with anticipated issue at the end of the year.

Please send in your records if you have not already done so and let me know if you would like to receive a copy of the new Atlas. The revision will contain data for at least 26 additional species and many more records, especially for the Solent and Poole Bay. Cost will be £5.00 to members.

PLEASE NOTE that the Atlas maps distribution for **Sea Area 15** (coast from St Alban's Head, Dorset to Peacehaven, East Sussex **including** the Isle of Wight).

All correspondence to Jan Light, Marine Recorder, [REDACTED]

[REDACTED] Godalming, Surrey [REDACTED]