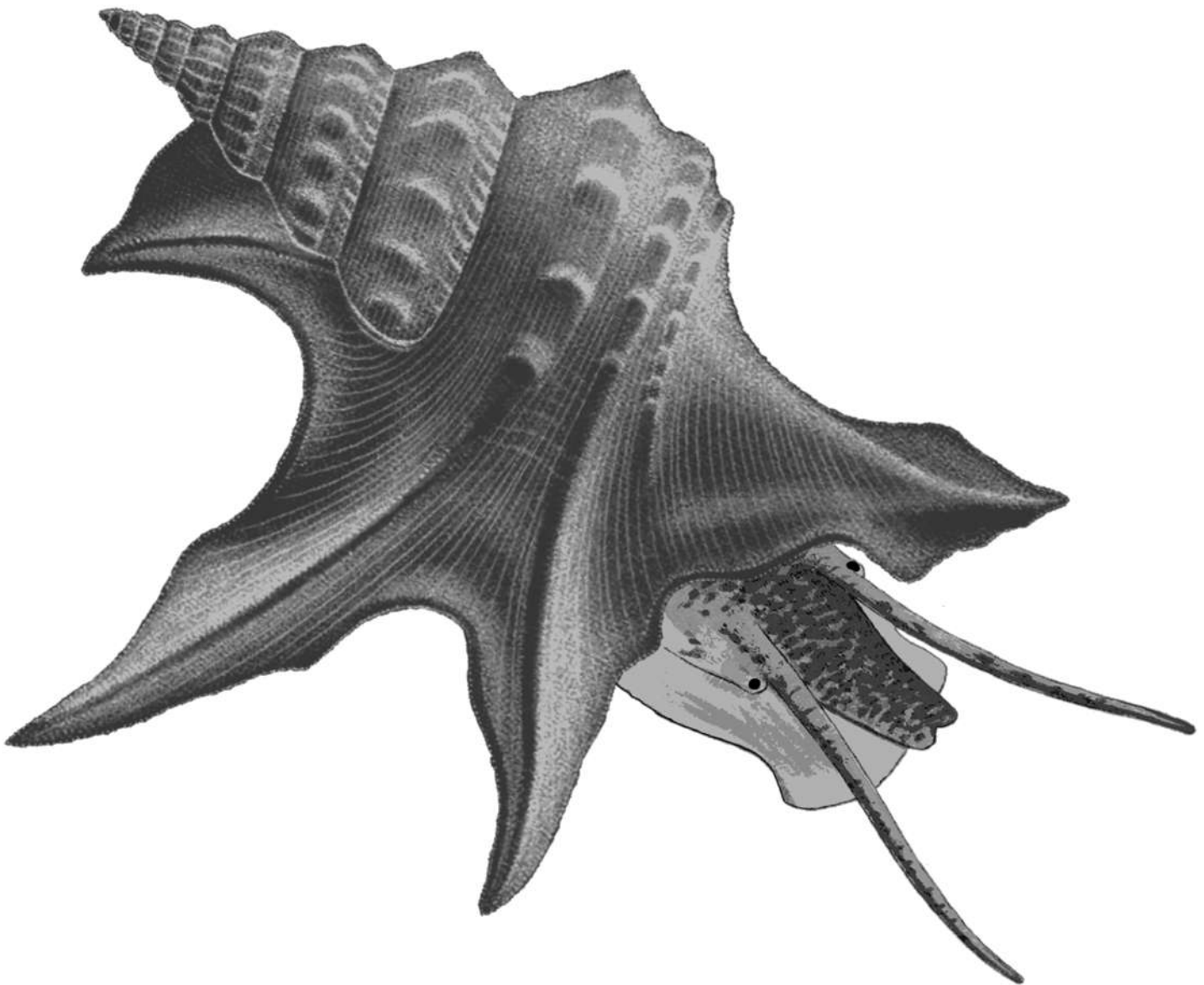


Mollusc World

ISSUE No.1

MARCH 2003



THE MAGAZINE OF THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

A welcome from the President

Welcome to *Mollusc World*, the new magazine produced by the Conchological Society of Great Britain & Ireland. I hope you like it and find much of interest within its pages. It replaces our long-running series *The Conchologists' Newsletter* which went through several changes during its life. The new

magazine, however, marks a major change in that many of the articles will have a different emphasis and that colour printing will be used. We will be putting forward ideas for new molluscan projects that many of you can participate in and hope that the results of these will be printed in future issues. Do you have any project suggestions? Please let us know. We hope the magazine will also attract more interest from conchologists and interested naturalists outside the society.

Please show it around.

I would like to express my thanks to the editor and his team of enthusiastic helpers in making this magazine a reality. Having said that, the continued success of the magazine depends on you, the readers. If you have any comments or ideas for suitable articles, especially if you plan to write them yourself, let the editor know. I am sure he will be pleased to hear from you. Read and enjoy.

Adrian Rundle

Mollusc World - Editorial

Mollusc World (ISSN 1740-1070) is published 3 times a year by the Conchological Society of Great Britain & Ireland at the end of March, July and November, and is issued free of charge to members.

We invite all members to contribute to *Mollusc World*. In addition to the traditional articles, field meeting reports, diary of events and so on, we will be including features, profiles, news from recorders, and identification keys. Do not feel that you have to write long or full page articles. We would particularly welcome short pieces, snippets, pictures, observations, new records, book reviews, mollusc recipes, cartoons, requests for information - anything on molluscs! *Mollusc World* will become an important means of staying in touch with the membership and communicating information to the conservation agencies and promoting molluscs to the wider biological community. So, please contribute!

Copy is acceptable in any format - electronic, typed or legible hand-written. When sending copy by email, please ensure that you include *Mollusc World* in the email title and also include a few lines of text in your message as well as an attachment. Unidentified attachments may not be opened! Please do not include diagrams or pictures embedded in the text - send them as separate attachments. To enable the best reproduction and resolution, any original artwork, diagrams, colour prints or slides should also be sent by 'snail' mail. All will be treated with care and returned. At the present time, we are unable to give precise copy deadlines until we are up and running, but contributors should assume that copy date is a minimum of 8 weeks before publication date.

Neither the Hon. Editor nor the Conchological Society of Great Britain & Ireland accept responsibility for any opinions expressed by contributors.

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Society Notes

Founded in 1876 the Conchological Society of Great Britain & Ireland is one of the oldest existing societies devoted to the study of molluscs. The Society promotes the study of molluscs and their conservation through meetings, publications and distribution recording schemes. The Society publishes *Journal of Conchology* (twice a year) and *Mollusc World* (three times per year).

The Conchological Society of Great Britain & Ireland is Registered Charity No. 208205

The Society's Web Site is at:
<http://www.conchsoc.org>

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Marine Field Workshop in Cornwall



Pryce, Jan and Michael



Stella Turk pays a visit



Rupert and Christine



Jen Ben and Jess (BELOW)



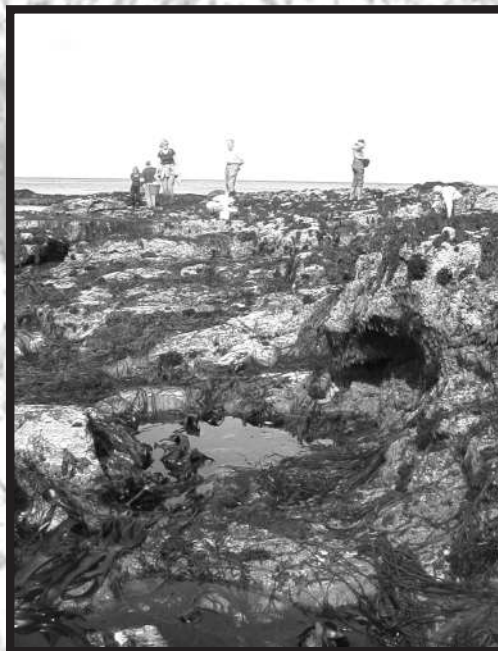
This course, based at Cornwall College, Camborne took place between Sunday 6 and Thursday 10 October 2002 during a period of exceptional spring tides. Twenty five Society members, representatives from the Cornwall Wildlife Trust (CWT) and Cornwall College participated.

This course differed from previous Conchological Society marine field meetings in that the main aim was not merely to record the entire mollusc fauna for the Society's Census scheme. The focus of the course was principally to provide tuition in shore recording techniques that would enable participants to record a shore on their own with the confidence of knowing which habitats to sample in order to provide the most comprehensive faunal list. The course was both field and laboratory based which enabled participants adequate time to process samples, identify specimens and analyse the results. Fieldwork took place at Godrevy Point, Portreath, Hoe Point (Praa), and Marazion. At each shore, projects were designed to enable the participants to gain a greater understanding of why and where particular habitats should be sampled, and to enable recording and identification of groups that are less often recorded to full species level (e.g. limpets and littorinids). A particular aspect of sampling was to quantitatively collect different species of algae at different levels of each shore and to analyse and compare the molluscan fauna. Participants also collected samples, from tube-building polychaete colonies, crevices, kelp holdfasts and *Zostera* beds. Jan Light has been compiling these data and will be giving a summary of the results in the next issue of *Mollusc World*. There were no great surprises in the species recorded but most people had not seen live examples of *Vitreolina philippi* with their red-spotted animals.

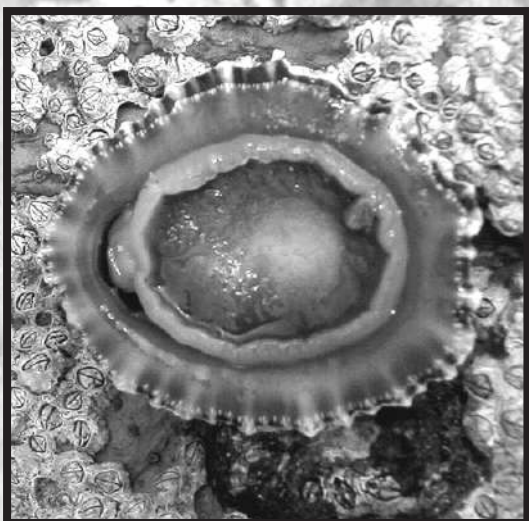
The course was a great success and special thanks are due to Jan for all her efforts, and to the CWT and Cornwall College for supporting and hosting this event.



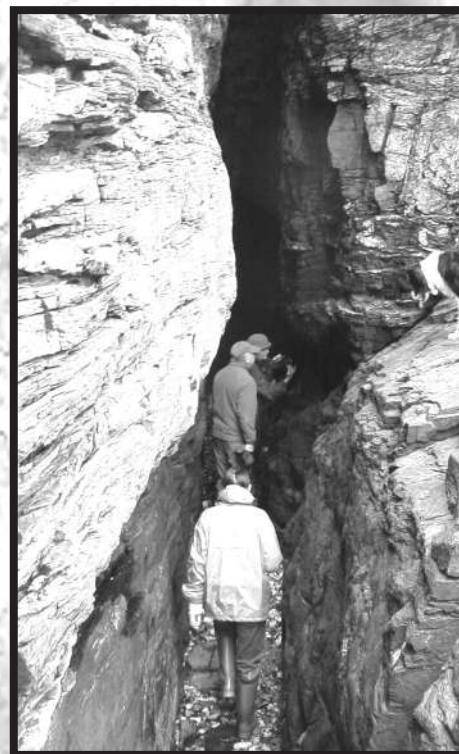
Instructions given on how to work safely on the shore



The shore at Portreath



Jan shows typical Paludinea habitats at Praa



Guess which Limpet!



Looking for crevice faunas at Praa Sands



Getting the right weeds at low tide at Godrevy Point.

Which book? A Guide for Tropical Marine Conchologists. Kevin Brown

Many members who join the Conchological Society often do so through an interest in tropical marine shells. However, there is a vast array of shell books available which can leave the learner with a bewildering choice of which to use or buy. Here Kevin Brown discusses some of the issues surrounding the choice and use of books for identification purposes and gives some examples.

Most novice collectors, naturally enough, start out using general worldwide identification guides. There are many such books available, and one feature of nearly all of them is their tendency to concentrate on larger “showy” shells from families which are popular with collectors. Smaller species and less popular families are often, undeservedly, underrepresented. Frequently there is a large degree of overlap between the various general identification guides, with the same species appearing time and time again. Undoubtedly this is because the books are targeted at the same market. For anyone with a passing interest in shells or for a novice collector, using one or two books can be adequate, but as a collection grows and the collector needs to identify more species it becomes frustrating.

The two general identification guides which I tend to use most are R.T. Abbott & S. P. Dance’s *Compendium of Seashells* and J. Eisenberg’s *Collectors’ Guide to Seashells of the World*. However, between them these two books pose a potential pitfall for the unwary novice: that of illustrations. In the *Compendium* each species is photographed individually, which gives superb quality illustrations, but, since each photo is reproduced at the same size, this means that it is easy to confuse large and small shells if one is not careful. In Eisenberg, on the other hand, several related shells are shown on the same plate. This means that while the comparative size of each shell is immediately obvious, where large and small species appear together the smaller can be either out of focus or too small a size to permit easy identification. Each method of illustration has advantages and

disadvantages, but the solution to accurate identification is clear: it is important to check the scale of illustrations, particularly if using two books but even if just one book which uses different scales for different plates.

Inevitably there comes a time when general identification guides are not enough and the student or collector moves on to using other books, usually monographs on particular families or regional guides, which present different difficulties for the user.

Family monographs tend to cover the same few “popular” families again and again whilst there are numerous families uncovered. For example, there are at least ten recent books on cowries, yet none on naticids. Successive authors covering the same family have different opinions, depending on the scientific rigour of their studies, and it is not necessarily the most recent publication which is the most reliable. Specialising authors tend to split at both the species and generic level, and it may be confusing for the novice who has become familiar with *Cypraea helvola* to find the same species labeled as *Erosaria helvola helvola* with four subspecies. Undoubtedly family monographs are essential if you decide to specialise in one family, but if a monograph is already available the family is likely to be popular with collectors, a popularity which leads to increased demand and inflated prices for specimens! Indeed it can be seen that a new monograph stimulates interest in a previously seldom-collected family. Regional identification guides are probably of more use to the general

collector than family monographs, and if you have good access to shells from a particular region or have collected extensively in one area they are absolutely essential. However, there is again some patchy coverage, for example there are over thirty books on Australian shells yet only a couple on West African species. If no book is available for the area being studied, it may be helpful to look at those for nearby areas. If the area of interest is Angola, for example, then books on South Africa or Gabon may be relevant: molluscan species will not observe strict national borders! Regional books which are intended for local use may well concentrate on larger, common or commercially important species, and this is particularly true as far as illustrations are concerned. Unfortunately these are the very species most likely to be included in general identification guides. As a rule of thumb the fewer species a regional guide includes the more likely they are to be covered in general worldwide identification guides.

A potential pitfall in using regional books is that the distributional information provided relates only to the region in question. For example, one particular South African book records the distribution of *Venus verrucosa* as Oranjemund to Kosi Bay, which is true enough as far as it goes. However the reader should also know that the species is found from the British Isles, through the Mediterranean and along the west coast of Africa as far as South Africa. Similarly if a regional book indicates the rarity of a species, that rarity may only relate to the region in question. So, for example, a species which is rare in East

Africa may have a wide Indo-Pacific distribution and be common overall. In contrast, species such as island endemics, take *Patella kermadecensis* as a good example, may be common but only in a very inaccessible and seldom visited area. Do you know anyone who has visited the Kermadec Islands? Rarity is also relative to the habitat a species lives in. A deep water species which is rarely collected may, in life, be very common. It is the difficulty of collecting which makes the species rare in collections. Any reference to rarity should be treated with caution.

Many regional guides are written in native languages: Spanish for some of the South American books for example. Do not let this deter you from using a book. The scientific name is the same whatever language is used, and as long as this is clearly linked to any illustration the book is usable as an identification guide. Also many of the 'technical' terms relating to the anatomy of the animal and morphology of the shell are easily recognisable in other European languages. Most books will indicate the shell's size, and "20-35mm" needs no translation! Habitats, if given, are usually indicated briefly and need little translation - "Zones de mangroves", "sous les rochers et coraux morts en zone littorale" "profondeur: 80 a 150m" etc. If a description of the species is given this is likely to be more complex but still comparatively easy. A description rarely includes many verbs (whether regular or irregular), adjectives are easily picked up using a simple dictionary, while the technical parts of a shell are often indicated in a glossary in the book itself. Even if the more wordy introductory sections are beyond you - and these are likely to be quite general in nature anyway - you can still understand 80-90% in books of most European languages with little problem and some help from a dictionary. It is however much more difficult to use books which do not use the Roman alphabet - anything in Greek, Cyrillic or Chinese characters for example - but these books still have the universal scientific names.

To be continued. In Part 2 of his article Kevin discusses some books which deal with applied aspects of conchology and gives a list of his top twenty shell books.

News from Ireland

Workshop on the conservation of protected Vertigo species

In April, 2002, a workshop on the conservation biology of *Vertigo* species was held in Dublin, under the sponsorship of Dúchas, the Heritage Service in the Republic of Ireland. The seminar brought European *Vertigo* specialists together for three days, to review the information available about *Vertigo angustior*, *V. genesii*, *V. geyeri* and *V. moulinsiana*: the four *Vertigo* species that are listed for protection under Annex II of the Habitats and Species Directive (Council Directive 92/43/EEC).

The primary objective of the workshop was to bring together as much as possible of the data relevant to the conservation of the four target *Vertigo* species, in an easily accessible format. Individual presentations were first made by participants, and revised Species Accounts were then prepared.

Without doubt, inclusion of these four *Vertigo* species among the entities requiring protection under the Habitats Directive has stimulated a significant amount of work on them. The results of much of this recent work were given by the speakers. Beata Pokryszko reviewed the *Vertigo* of Central Europe in terms of their ecology and conservation issues. Ilmari Valovirta and Ted von Proschwitz dealt with distribution and conservation of *Vertigo* species in Finland and Sweden (and elsewhere in Scandinavia) respectively. Gerhard Falkner and Ezrebet Hornung discussed the distribution and status of *Vertigo* species in Bavaria and Hungary respectively. Robert Cameron described the autecological and monitoring studies carried out on *Vertigo* species in Wales,

while Ian Killeen reviewed the habitats of *Vertigo* species in Britain, also providing an overview of survey and monitoring work carried out on them there. Evelyn Moorkens described survey and monitoring work on a *Vertigo angustior* site in Ireland, and Peter Tattersfield discussed hydrological studies on *Vertigo moulinsiana* at some sites in England. Geraldine Holyoak talked about the methodology and results of surveys carried out to locate *Vertigo geyeri* on some Irish sites, and Barry Colville explained how to go about finding *Vertigo genesii*.

The papers given, and the revised species accounts for each of the four species will shortly be published as a special volume of *Heldia*. Further information will be given when the work becomes available.

Further records of *Lehmannia valentiana*

In *Conchologists' Newsletter* **187**: 9-11 (2001), Roy Anderson gave an update of the Irish status of *L. valentiana*. Since publication of the 1999 *Atlas*, Roy has found the species more widely in the north, and at sites in the south around Cork in wooded rather than urban habitats. In April 2002, Roy found further specimens in the south of Dublin City, and in August 2002, I collected several specimens from a garden wall of a hotel in Newbridge, Co. Kildare, some 45km south-west of Dublin. The species is continuing to spread and all members working in Ireland are asked to look out for this slug.

Evelyn Moorkens



Roy Anderson



Christine Street

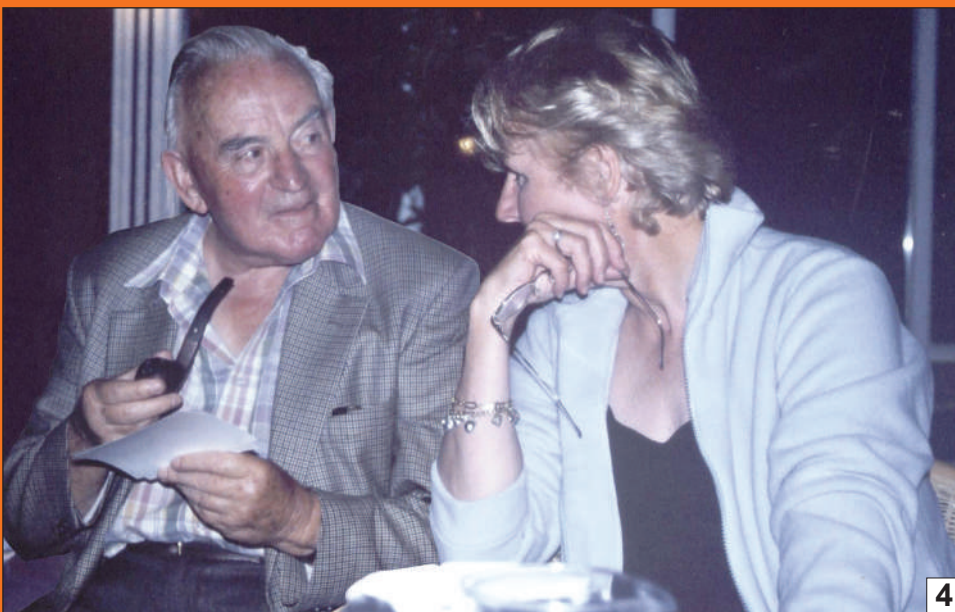


Jan Light



Jan Light

These images relate to specific articles within the magazine. **Fig. 1.** *Lehmannia valentiana*. Page 6. **Fig. 2.** Single *Janthina janthina* floating ashore at Anse aux Anglais on the north coast of Rodrigues. **Fig. 2a.** Strandline at Petit Graviers on the southeast coast of Rodrigues with freshly cast up *Janthina janthina* with bubble rafts intact. Page 12. **Fig. 3.** Western beaches, Coll. 1998. Page 14. **Fig. 4.** Tom Pain with Jan Light. Page 16. **Fig. 5.** Ecofun day pic. Page 18.



Ian Killeen



Danielle Cowell

Field Visit to SK76 by Chris du Feu

A previously unrecorded square - 21st September 2002

It was with some trepidation that I agreed to arrange this visit, never before having attended any Conchological Society field meeting. The nine other members who attended made as fine a body of mollusc hunters as I could have wished to lead. There were no revolts, no dissension, no disobedience nor complaints. Thank you all for making this day so easy and pleasurable.

During planning the meeting, I kept reminding myself that the day could not fail provided we found at least one mollusc. This square, unique in England, has no molluscs recorded in the 1999 Atlas. (In fact, perusal of the 1976 Atlas showed some records gathered between 1950 and 1965 but none since then.) Although rural Nottinghamshire is a mollusc recording black spot it seemed most odd that this square in particular should have been overlooked. Laxton, which sits firmly in the square, has the last remaining open-field strip farming system in England and is therefore well known as a site of historical interest. Some of the grazing meadows have remained untouched by artificial fertilisers (although they will probably suffer from run-off from adjacent fields). The open fields, although shared between the farmers in the traditional manner, are subject to modern agricultural methods including the use of fertiliser but the three-year crop rotation remains rigidly applied. In addition, this very rural ten kilometre square has its share of other habitats including some ancient woodland.

The visit to the Laxton area was made possible through the help of Stuart Rose, one of the open field farmers who is 'clerk to the jury'. He had previously shown me around the 5 square kilometres of the open field system pointing out places where it might be helpful to look. In addition the Nottinghamshire Wildlife Trust had given permission to search in nearby Kirton Wood (which has some ancient woodland) and Tessa Rolph, the Laxton churchwarden, had given permission for us to search in the churchyard. Overall, plenty to go at for the day.

The first molluscs for the day were found on the upward journey by Peter and Sam Topley as they passed Ossington church. We assembled at the Laxton Visitor centre where there was a meeting room, toilets etc. and planned the day. The morning's efforts would consist of a ramble around the south field system, stopping at likely looking mollusc spots. It would cover various habitats including sykes, arable fields, old headlands, hedgerow, pasture, streams and ditches. (Sykes are strips of unimproved grazing, generally on soil which is too difficult for arable operations - either awkwardly shaped, or subject to waterlogging etc. Syke is the singular and is pronounced as in sick; sykes is the plural and pronounced as in six.)

The weather was wonderful. In spite of being late September, we were in shirt sleeves. The sun shone, the breeze kept us warm but not over-hot, it was dry and the ground underneath was dry too. Ideal for seeing rural Nottinghamshire at its most lovely - it

is so different from the city or the former mining parts in the west of the county. Unfortunately for mollusc hunters, these lovely conditions sent our quarry underground and hunting for them was very hard work indeed. Lucky that we were safe in the knowledge that even one mollusc would be a new 10-km record. Although there were some permanent streams in that area and these were more productive than the open fields, with the wisdom of hindsight, it might have been better to start on the west field system which looked less dry. Certainly the grass did look greener on the other side. We returned to the Dovecote Inn, adjacent to the visitor centre at 13:00 to be greeted by Stuart Rose clutching a container full of the snail shells he had told us appear every time they plough the land along a particular patch running through the village. Some were identified on the spot, others were taken for later identification. Stuart had also found the best slug of the day - *Boettgerilla pallens* - which had been lurking in the soil where he had found the mollusc shells.

For the afternoon we agreed to visit Kirton Wood first - a mere two kilometres distant as the crow flies but 5 kilometres as the country road winds. This was more densely populated with molluscs than the farmland, although the dry conditions again made it hard work. Several more species were found, including a large number subsequently identified by Barry Colville in his goody bag of litter. After searching the wood we returned to Laxton for a look around the churchyard. Again, dryness impeded the mollusc hunters although gradually the species total increased with the day's first *Vallonia excentrica*, *Oxychilus draparnaudi* and *Deroceras panormitanum*. The churchyard also yielded some *Tandonia budapestensis* with rich unicolourous orange soles - very different indeed from the almost universal dark centre line to the sole in this species.

By the end of the day we had recorded over 30 species identified and were confident of a higher total once the specimens collected had been identified at home. In addition, I had previously, and in complete ignorance of the square's unrecorded status, carried out two brief slug forays into Kirton Wood and a farmyard in Laxton. These added three more species to the total for the square.

The final total of species is 46. This is rather pleasing - figure 1 shows SK76 and its surrounding squares. Our total for the day, in spite of the adverse fine weather, is quite respectable for the area. Table 1 lists the species we have found. These are broken down into one kilometre square recording units. Although we found no new species for Nottinghamshire, there were a handful which were only the second or third for the county. These are indicated in the species table. Interestingly, of the 26 species found in Kirton Wood, 17 were only found in litter taken home by Barry for examination.

The general opinion was that it was a good day (I hope the team

were saying that not just to be kind to an inexperienced leader). I certainly enjoyed it and am grateful to the team who endured my ignorance of snails coupled with hardness of hearing which forced them to repeat the names of species, in full, many, many times. Thanks are also due to Laxton Estate for permission to search, to Stuart Rose for his help in planning, Tessa Rolph for permission to search in the churchyard and to the Nottinghamshire Wildlife Trust for permission to visit Kirton Wood.

What of the future? There are plenty more unvisited habitats in the square - the west field system may be more productive and may have some relict species. There is a variety of other habitats in the square. If you are travelling along the A1 between Sutton-on-Trent and Tuxford, why not take a short break and search in one of the nearby villages or woodlands - they are criss-crossed by public footpaths so access should not be a problem.

Figure 1

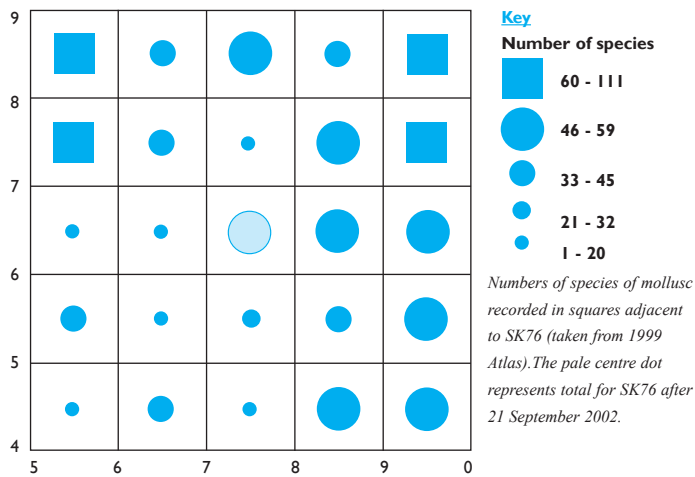


Table 2

Description of habitats in one-kilometre squares

- SK7068** Kirton Wood, including some ancient woodland. Additional records from 1 January 1999.
- SK7166** House, garden and farmyard, 21 March 1999.
- SK7265** Arable south fields, old headlands, hedgerow, streams, pasture.
- SK7266** Syke, village.
- SK7267** Churchyard, visitor centre.
- SK7565** Churchyard.

The cast in alphabetical order of surname

Ron Boyce, Barry Colville, Chris du Feu, Rosemary Hill, Caitlin and James Potter, Peter and Sam Topley, Mike and Helen Weideli with guest appearance by Stuart Rose.

STOP PRESS

Members will be delighted to hear that Stella Turk, Vice-President and former Marine Recorder was awarded the MBE in the New Year's Honours List for her services to natural history in Cornwall. Warmest congratulations!

Table 1

Species recorded in SK76 on, or before, field visit of 21 September 2002

Species	SK7068	SK7167	SK7265	SK7266	SK7267	SK7565
<i>Valvata cristata</i>			*			
<i>Potamopyrgus antipodarum</i>			*	*		
<i>Bithynia tentaculata</i>			s			
<i>Lymnaea peregra</i>			*			
<i>Planorbis planorbis</i>			s			
<i>Anisus leucostoma</i>			s			
<i>Pisidium casertanum</i>			*			
<i>Pisidium personatum</i>			*			
<i>Pisidium subtruncatum</i>			*			
<i>Carychium tridentatum</i>	*			*		
<i>Oxyloma pfeifferi</i>			s			
<i>Cochlicopa lubrica</i> ‡	*			*	*	*
<i>Vallonia excentrica</i>					*	
<i>Acanthinula aculeata</i>	v					
<i>Punctum pygmaeum</i>						
<i>Discus rotundatus</i> ‡	*			*	*	*
<i>Arion ater</i>	e		*	*		
<i>Arion circumscriptus</i> agg.					*	
<i>Arion circumscriptus</i>	*					
<i>Arion silvaticus</i>		e				
<i>Arion distinctus</i>	*	e	*		*	
<i>Arion intermedius</i>	*				*	
<i>Vitrina pellucida</i> ‡	*					
<i>Vitrea crystallina</i>	*			*	*	
<i>Vitrea contracta</i>	v					
<i>Nesovitrea hammonis</i>	*				*	
<i>Aegopinella pura</i>	*					
<i>Aegopinella nitidula</i>	*		*	*	*	*
<i>Oxychilus draparnaudi</i>					v	
<i>Oxychilus cellarius</i>	*			*		
<i>Oxychilus alliarius</i>	*		*		*	*
<i>Milax gagates</i>		e				
<i>Tandonia budapestensis</i>	*	e	*		*	
<i>Boettgerilla pallens</i>			v			
<i>Limax maximus</i>	*					
<i>Limax flavus</i>		e				
<i>Deroceras reticulatum</i>	*	e	*	*	*	
<i>Deroceras panormitanum</i>					*	
<i>Euconulus fulvus</i> ‡	v					
<i>Cochlodina laminata</i>	v					
<i>Clausilia bidentata</i>	*			*		
<i>Trichia plebeia</i>	*			*	*	*
<i>Trichia hispida</i> ‡	*			*		*
<i>Arianta arbustorum</i>			s			
<i>Cepaea nemoralis</i> ‡	*		s	s		s
<i>Cepaea hortensis</i> ‡	*			*	*	
<i>Helix aspersa</i> ‡		e	*	*	*	

Notes for Table 1

- * recorded on field visit 21 September 2002
- v records from 21 September 2002 which are only 2nd or 3rd for the county
- e record from earlier visits
- s shell only
- ‡ species recorded in the 1976 Atlas

An Oyster Fishery at the Mumbles Jim Hall

“The Mumbles,” is a rather odd place name but one that is nevertheless well known, even if the exact location could not necessarily be placed by everyone. It is actually at the most westerly corner of the huge and beautiful sweep of Swansea Bay, about five miles from the centre of the city. The bay from its eastern to western tips, spans a seventeen-mile stretch of almost continuous beach, only broken by the Tawe river in Swansea and the Neath river two miles to the east. When I stand on the Mumbles Head and look back across this magnificent bay of mostly calm waters, it is not hard to see why ancient peoples made a settlement in this most natural of harbours. The ships could rest their crews and carry out repairs after long and undoubtedly gruelling sea voyages.

The past history of the origins of Swansea as a settlement are a bit obscure, with some historians believing that the Vikings may have settled in the bay. They are certainly known to have raided all along this coast and even in Ireland, as well as their closer quarry on the east coast of Britain. The City is reputedly named after one of these Viking raiders, “Swayne’s Eye”. This is only a theory, and many people have their own ideas. There stands a hill about a thousand yards to the east of the Tawe river, Kilvey by name, that forms one side of the valley through which the river flows to meet the sea. It towers over the dock-lands and a small population of city dwellers, live along the seaward base of this hill. Most of the city lays on the western banks of the Tawe. In the sketchy history of Swansea it has been stated that a fairly large lake, or wetland, existed between the river and Kilvey hill, home to a very large gathering of swans over hundreds of years, in the distant past. My own pet theory is that a reference to these lovely creatures seems as good as any other theory. Swan-sea...Swans by the Sea. The name in Welsh, Abertawe, is not

comparable because the translation simply means Aber (mouth) Tawe (river name).

Meanwhile long before the Vikings, and perhaps many other sea-going peoples, the Romans had landed. They are known to have made a permanent settlement in Neath, a neighbouring town about fifteen miles from Swansea. Local historians believe that it is highly likely that the Romans might have used Swansea Bay, as well as sailing up the River Neath. They would almost certainly have explored the surrounding countryside and they also had a small fort at Loughor: a less significant location today, and situated about five miles inland along another tidal river, about five miles to the west of Swansea.

With all of this activity on both sides of Swansea, probably only a small sea-port at this time, we know that outside the village walls there existed some very heavily wooded areas. This would have made travelling less easily accomplished than it is today. Walking along the beach would have been the easiest and probably the most-used route for local people and visitors. Food sources would be more difficult for the “invader” and as everything had to be taken fresh, perhaps cooked and eaten promptly, it is believed that the Romans would have discovered the existence of a delicacy, such as the oyster. The fact that oyster shells have been discovered at the old Roman forts at Caerleon and Caerwent proves that oysters were a resource, that was used to supplement their diet.

One of the earliest records of the oyster at Mumbles tells of local Oystermouth villagers, in 1640, eating them on a regular basis, and of their children being fed oysters from a very young age, as a cheap and easily obtainable supplement. The tiny settlement in The Mumbles area worked these oyster beds during the 1700’s but mainly for their own needs and possibly to sell some of the catch in

Swansea, about a 90 minute “walk” from Mumbles.

During the early 1800’s the skills of the villagers were improving and the size of the settlement was growing. More boats were being used and their catch was increasing. The local people had begun to realise the potential demand for this food, which was for them,(a staple in the diet) as basic as cabbage, but to inland people had become a ‘trendy delicacy’. The Mumbles railway that ran along the sea front right into Swansea town, was opened in 1804 and would have been a great help to the fishermen of that time. By 1830 the Mumbles folk were selling the oysters, up and down the South Wales coastline and even as far as Bristol. Transporting oysters over these distances required a form of temporary storage. They overcame the problem by building holding pens called “perches” in the intertidal shallows where they could hold a week’s catch alive, in natural conditions, until an order could be fulfilled. Each man’s perch was safe from theft, by an unwritten agreement among the village people, broken at one’s peril! The fishing season ran from 1st September until the end of April. May, June, July and August were the oyster spawning months and the locals would rigidly adhere to this rest period. The Mumbles oysters were reputedly among the finest quality in the world. When something is this good, the word spreads, at first reaping huge rewards. Swansea had by this time grown to town status, with the port handling the coal exporting trade from the mines of the Welsh valleys, which were also the most important source of copper in the world. It was inevitable that greed would set in, as it often does where money is concerned.

The boats used for the trawling of the oyster had been quite small 20ft rowing boats, but as the trade increased, the need for larger sail driven boats became



apparent for better productivity. Around the mid 1800's, 40ft sail-boats were purchased from Colchester in Essex at first, and later, from Appledore in Devon. The new boats increased the yield per man and the industry seemed to be indestructible.

We are familiar with the "Gold Rush" in 1800's America; less well-known is the fact that Swansea Bay, in the period 1850/1870, had an "Oyster Rush". The oyster-catchers were bringing in around 4,000 oysters, per boat, per day and they were making a lot of money. In the year 1871 the trade peaked when 10 million oysters were landed, fetching £50,000, with 600 men employed to gather the harvest at the time. The quality of the oyster, the money being made by the locals, the huge increase in demand as the fame of this top quality shellfish spread, began to cause problems.

London boats arrived, as did boats from Bristol and even Liverpool. They came from France, wanting oysters to start new beds on their own coastline. It all became a fiasco: too many fishermen flooding what had been a very lucrative market, now causing a small but steady decrease in the prices. By 1886 the trade had reached its lowest ebb with prices hitting rock bottom, to the point where the fishermen of Oystermouth were struggling to earn a living.

If they had "saved for that rainy day" they may have survived perhaps, but they had always been poor villagers, who had suddenly hit the big time and spent most of it in the local hostelrys. Many of the oyster-catchers sold their boats for a pittance - £30 for a boat that had cost £200 - and then tried to find work elsewhere. By the year 1890 the few that stuck with it were bringing in catches of 200 oysters, per man, per day: barely enough to earn a decent living. Perhaps only half a dozen die-hards continued to fish for this now, hard-to-find prize, and continued to do so until just after the end of the First World War. During the years 1920/21 a disaster struck the industry. A strange virus infected the "hauls," the catchers' name for the oyster beds, and this virus

struck all over Britain and across the Channel as well, spelling doom for the industry. The Great Death as it became known, had arrived and the oyster's heyday was over!

One or two boats persevered on an irregular basis right up to 1930, but more as a pastime than a money-earner.

Although the oyster beds do still exist they are depleted, although one of them can be reached at low spring tides by walking across a very slippery and muddy foreshore. There are maybe a few hundred oysters on this bed, actually quite heavy things to carry in their raw state, but it seems unlikely that these beds will ever recover to their former glory when each bed would have supported a million or more. During the 1960's some 35,000 oysters were "planted" at various points along the West Wales coast in an attempt to revive the industry. Maybe, given enough time.....

Mumbles is the name for the headland, with the addition, in the year 1793, of a lighthouse placed upon its extremity, for the safety of the now growing and busy shipping lanes. During the heyday of the "oyster" nobody actually lived there: it was probably considered to be too exposed to the elements. The homes of the local oyster fishermen lay about a quarter of a mile inside the protection of that headland. It is not too hard to figure out how the oyster fisher's village became known as Oystermouth, just a small

fishing hamlet, but one that has grown and has in recent years, developed into a community of largely retired inhabitants. It is still a village, but now full of up-market shops and expensive cars. How times can change.

Culinary note: Many of the oyster catchers would carry a small stove on their boats and enjoy a mid day fry-up of oysters and rashers of bacon. Another favourite of the village people, in the 1800's, would be to take a prime steak of beef, maybe one inch or more thick, split the steak lengthways down the middle and then insert an oyster or two into the centre of the steak and gently fry the whole thing. And these people were described as "poor" villagers!

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The Sea Fisheries Commission: Mr Philip Coates



The oyster table, Mumbles c.1910 Oyster fisherman c.1870 (background)
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Janthina janthina

There are doubtless a good number of readers who will recall having read, in one of the many popular books on shell-collecting, an account of a *Janthina* stranding. Edward Step (1945) gives a concise introduction to *Janthina*, or violet sea snails, of which there are four species found washed upon our western shores, although none is native. Writers wax lyrical about their serendipitous finds of occasional specimens cast ashore, or about the way the strandline turns violet blue (Lalli & Gilmer 1989) when a mass *Janthina* wreck occurs. All four species appear to coexist in warm surface waters but *J. janthina* is the most numerous (see page 7). The snails feed on oceanic drift animals i.e. the colonial hydrozoans *Verella verella*, (By-the-wind-sailor), *Physalia physalis*, (Portuguese man-of-war) with which it is normally associated in open ocean waters and *Porpita porpita*, a pleustonic coelenterate. *Janthina* relies on passive encounters with suitable prey organisms. Beachings of *Janthina* are often associated with their prey species, all of which have a similar purple blue hue. In Britain the associated prey is usually *Verella* (fig 3). Occasional shells are washed in on beaches along the coasts in southwest Britain and rarely, larger strandings take place. I had always wanted to see such an event, but I could not have imagined I would wait until I had travelled half way round the globe to experience it on a small isolated island in the Indian Ocean.

During fieldwork in October 2001 on the island of Rodrigues, two beachings of *Janthina* occurred. In the first week, southeasterly gales drove the animals ashore, together with their associated prey, *Physalia* (fig 1) and *Porpita* (fig 2) and scattered them along the sandy strandline at Petit Gravier on the southeast coast. When we found them, a few still had their rafts in place. During the last week high winds from the northwest drove an armada of *Janthina* onto the north shores. One morning, at 6am we were thigh-deep collecting weed

samples for processing when my companion said "Look to your right" and as I turned to look a *Janthina* with its bubble sail aloft, floated past. Over the next 2-3 hours several dozen live *Janthina* and *Physalia* came ashore and were collected to be watched at close quarters. Several specimens were observed and photographed during cycles of bubble replenishment of their rafts. Some of these photographs have been ordered (Figs 4-10) to show the sequence of bubble formation. For those whose memories stretch back that far, the summer of 1954 may be remembered for its lack of sunshine, excess rain and frequent high winds over England and Wales (rather like the summer of 2002!) In the southwest some people may also remember it for an exceptional stranding event when waves of *Janthina* flotillas were beached along the coast from Gunwalloe on the west coast of the Lizard peninsula as far as Woolacombe over a period of five weeks beginning in early August. With the exception of an empty shell picked up at Dale Fort in Pembrokeshire, and occasional shells on the Isles of Scilly, the main strandings were confined to the north coast of Cornwall and Devon, missing southern Ireland and *Verella* was frequently stranded with the snails. Wilson & Wilson (1956) give a full chronology of the stranding event and details of earlier strandings in southwest England and Wales. There was another stranding ten years later, and the most recent event occurred in Cornwall and Devon in June 1981. Ironically this is the year that I joined the Conchological Society in May; not quite soon enough to have heard about the Cornish beachings through the Society grapevine! In 1981 there were many reports of strandings of unusual sea-surface drift animals, mainly *Verella* with very small number of *Janthina janthina*. The drift was mainly stranded on the north Cornish coast, in the sand-catchment areas from Gwithian to Bude; these areas occur where jutting headlands obstruct longshore drift. An

account of this has been given by Stella Turk (1982).

It was noticed about 30 years ago that visits of *Janthina* to southwestern shores always coincided with large numbers of



Verella. Observations made on board the research ship *Discovery II* (by F.D. Ommanney who joined the staff of the DISCOVERY investigations and made three 2-year trips to the Antarctic), have since confirmed that the *Janthina* actually feed on the *Verella*, which were captured and placed in tanks with the *Janthina* clinging on underneath them. In the tanks the *Janthina* were seen to browse through the clusters of "persons" underneath the

violet snails stranded by violent seas Jan Light

disc-like float eventually leaving it quite bare. As they did so the snails from time to time exuded a dye which is believed to have a paralysing effect on the individuals of the jellyfish colony. Many benthic species of mollusc spend

permanently pelagic existence but one such genus is *Janthina*. Janthinid species are known to exist in swarms covering as much as 200 nautical miles (Lalli & Gilmer 1989). The snails live out their lives suspended upside down at the

air. Only the foot of the snail is involved in that process. The sole the foot is stretched upwards to break the surface of the water and the sides of the foot fold over the depressed central area to encase a bubble of air. Special glands on the foot



Background image. A collection of empty *Janthina* shells.

Fig. 1 Specimen of *Physalia physalis*, the colonial siphonophore which is known to be *Janthina* prey.

Fig. 2 *Porpita* sp. a hydranth with a circular polypoid of chitonous material which persists after the soft tissues have decayed. This is a *Janthina* prey species and this specimen has been isolated by the retreating tide in a small pool on the basalt platform at The Hermitage, Rodrigues.

Fig. 3 *Velella velella*.

BUBBLEMAKING SEQUENCE

Fig. 4 *Janthina janthina* at rest on the sediment. Note the goose barnacle attached to the snail's shell.

Fig. 5 *Janthina* with incipient enrolling of the foot.

Fig. 6 *Janthina* with enrolled foot moving towards surface of water

Fig. 7 *Janthina* with enrolled foot just below surface of water

Fig. 8 *Janthina* with enrolled foot breaking surface of water.

Fig. 9 The enrolled foot of *Janthina* extends above surface of water and entraps a bubble of air.

Fig. 10 The foot of *Janthina* and its encased air bubble are withdrawn below the water surface.

Fig 3, photo Paul Gainey. All other photos by Jan Light

coat the entrapped air with mucus, the encased air bubble then being pulled below the surface of the water and cemented to the existing raft with hardening mucus. The entire sequence has been timed and occurs in ten seconds (Lalli & Gilmer 1989). It may be repeated

their larval life either floating or swimming in the water column before settling on the bottom to assume their adult form and habit. They may spend only a few hours, or may drift in the water currents for several weeks or months thereby achieving wide dispersal. Despite the fact that the water column offers a such a large volume of living space, few molluscs have succeeded in adapting to a

surface of the ocean. To achieve flotation they construct a individual raft of bubbles. *Janthina* lacks the ability to swim and if it becomes submerged is unable to rebuild its raft without access to

six to ten times in successions before a pause. The float of *Janthina* is firm, elastic and dry to the touch. It varies from colourless to pink or violet in colour which may be a product of age of the



float. *Janthina* produces eggs which hatch into young veligers which swim freely in the water column. Eventually they produce a long mucous string with a ball of air bubbles at the end. This early buoyancy device brings the young snails to the surface where they can begin to construct the adult raft.

The colouration of these sea snails is a fascinating adaptation to life at the surface of the ocean. What better coloured shell could an ocean-going snail possess than the violet blue shades common to all species of *Janthina*? In matching the surrounding, mainly tropical, waters this is effective in concealing pelagic animals from visual predators. There are no known predators of *Janthina* but some fish and birds may consume them. The potential camouflage achieved by the violet blue colour of the shell is enhanced by countershading. Those regions of the shell directed downwards in the water are paler than areas of the shell visible at the surface. This extra protective device means that potential predators approaching from below may have difficulty in distinguishing a pale mauve shells against the light background of the sky and predatory birds would find it less easy to spot *Janthina* from above because the

dark violet colour blends into the dark background of the sea.

Whilst on Rodrigues, I was surprised that the local people do not collect the attractive violet shells. A few of the shops selling locally produced basketware might have a tray of *Cypraea tigris* for sale, but the islanders do not appear to view local shells as a marketable commodity. When talking about *Janthina* to a group of young people at the local education centre I offered some for examination but the potential recipients shrank back telling me that the shell is poisonous. This may have something to do with the colour of the shells, or it may stem from the islanders' awareness of the association between janthinids and pelagic coelenterates which possess stinging nematocysts on the tentacles.

To date it has generally been assumed that any beachings of *Janthina* in Britain will occur on western and southwestern coasts after a prolonged interval of southerly or southwesterly winds. However in June 2002 a West Sussex Countryside Ranger reported a find of a *Velella* skeleton with some blue tissue still attached, at Bognor. This is the most easterly record for *Velella* along the English Channel. I am aware of very few

records for *Janthina* from the south or southeast coasts of England and would be interested to hear of more. However the *Velella* record suggests that in the future it would be worth keeping an eye out for a flash of violet blue when beachcombing, or walking the shores of the south coast, particularly after intervals of stormy weather.

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Some of my favourite shell beaches *Christine Street*

I am not very good at looking for live molluscs on beaches, usually only seeing the obvious ones on the rocks. Instead, I love looking for interesting patches of shell sand and dead shells. I have brought back what probably amounts to several stones of shells and sand, to be a constant source of enjoyment (and occasionally excitement and frustration too!).

Everyone knows that beaches differ greatly in character. The exposure and lack of suitable habitats of some, makes them poor for shelling: for instance, those with dark sand and gravel patches, or desolate rocky areas, those exposed stretches where nearly all trace of shell-life has been scoured away. (However,

rock pools may harbour lots of dead molluscs.) Then there are the disappointments: white crushed barnacle sand often has colourful shells, but they may be badly worn. Sometimes the conditions on the beaches are unpleasant; though remote, beaches can often be clogged with plastic waste carelessly thrown from boats, or piled high with stinking seaweed. My favourites are broad sweeps of sand, usually south-facing curved bays with clear signs of a tide line, to watch every day, with the broad range of shells changing in calm or gale. A wide bay can have very different kinds of shells in its different areas. The shell's size, shape and weight and the strength and direction of current affect

where they are deposited. Probably due to these mysterious hydrodynamic forces, when a beach is enclosed with rocks or paired with an offshore island, the selection can be especially interesting. Like beaches, shell sand comes in many guises. Sometimes the tide deposits huge heaps of shells mixed with gravel, or fine red and brown seaweed spangled with turbonillas. Shell sand can sometimes extend for a mile or more as a thin ribbon of weed and shells along the tideline. It can be tiring to examine such a stretch properly, so I welcome the beach having attractive surroundings, and birds and flowers occasionally to distract the eye. On a pleasant day a perfect way to spend the time, but less dedicated companions can become edgy when the drizzle begins! If this happens, I try to sweep up as much as I can into plastic bags, to avoid missing anything.

So which beaches show this sort of



pattern and have a wide range of shells? Some that I find irresistible are Gott Bay, Tiree; Rothiesholm Bay, Stronsay, Orkney; St. Martin's Flats, Scilly Isles; the northern and western beaches of Coll; also Shell Bay, Herm; and Princes Strand Eriskay.

Gott Bay, Tiree, for a shell collector is rather special. It curves for more than a mile and faces southeast. Helpfully, the sea partially sorts the shells along the open bay. It could not be called a beautiful beach, but its openness is refreshing for a Londoner. Tiree is very flat, so no cliffs, only dunes overlook it. But the eastern end does continue as backwaters and rocky islets giving different habitats. The western end becomes more silty, with a stream winding down to the sea and a few seaweedy rocks and puddles offering more variety. There is a large hotel in the middle that acts as a useful landmark, making it easier to note from which part of the beach various species come. Light, larger shells are found towards the west such as *Mysia undata* and *Pleurobranchus membranaceus*. Also to the west are large heaps of shell gravel that include *Mangelia powisiana*. Only on the far western silty end were *Oenopota turricula* to be found, along with quite a few large bivalves. Towards the centre, many *Thracia* were neatly sorted to right and left valves. East of centre were very light shells such as young cowries on a bed of fine weed. This end of the beach has quite a lot of seaweed, which does not usually include many shells. West of centre is a bank of sand that shelters a faster filling lagoon where fragile bivalves, especially *Thracia* tend to be deposited. There is also a small stream east of centre, which brings down quite a few land and water snails. Generally the selection is very wide with a good chance of finding something unusual. Rothiesholm Bay, Stronsay is another huge stretch of sand, about a mile across, at the back of a large south-facing inlet strangely called the Bay of Holland. It is under the arm of a southwest directed peninsula, ensuring that currents bring in a large selection of shells. Towards the farther end there are collected many large rounded pebbles four to six inches in diameter, covered by soft green algal growth. This makes the perfect soft trap

for large shells, gastropod and bivalve. I have never seen so many perfect *Arctica islandica* with valves still joined and *Colus gracilis* in unchipped condition. Behind this is an area where lighter shells like Tellins collect along the tideline like butterflies. Also there were several canoe shells (*Scaphander*), some still floating like small boats on the tide. At the start, after the burial ground and to the east is an area of small rocks and interesting rockpools. At this spot were several *Amauropsis islandica* at various stages of growth. This is the only area in which I have seen them, so it was an added bonus. In August with the sun shining it was very attractive with camomile and sea rocket growing on the edge of the sand. Here the land is very flat, with the highest point behind the beach at 19 metres on the narrow strip of land. The high point at the far end of the peninsula is 41 metres. This is not a breathtaking landscape, but I feel a long way from civilisation walking along that breezy lonely shore.

Another great favourite among the beaches I have visited is in the Scilly Isles. It is called St. Martin's Flats and is a wonderful place to explore, particularly at the spring low tides. Being in the warmer south west it is a pleasant place to roam even in February and is unbeatable on a mild Autumn day. The views across to St. Mary's and Tresco are beautiful and the sea around is dotted with little islands. As the tide retreats they can be reached one by one. Because the coast has such a wide shelf the water does not suddenly get deep, but a watch has to be kept on the advance of water in channels between the lumps and bumps, from both east and west. Sea potatoes (*Echinocardium*) abound on the silty, sandy flats. Past Jack's Ledge, which has some beached shells, we go to the sandy bar that leads to Moths Ledge. Attractive flower-like sea anemones grow on the sand. We risk paddling to Broad Ledge where more beached shells lie and are tempted to cross with the help of another sandy bar to Guthers Island. This, from the shore looks like the ruins of a castle and is about a mile away, well on the way to St. Mary's. There the sea does get deep so we must return quickly as there are the first signs of an incoming tide. There is so much to look at but it's just as well,

not to go alone, to avoid getting stranded by the returning sea! Rare sea holly grows at the western end of the beach. This is another very flat landscape, but full of interest with so many islands around. I am not sure if *Divaricella divaricata* lives in that channel or only in the one by Tresco but I did find several valves.

I must include the island of Coll, which has some beautiful beaches. We have always stayed at the western end near some particular favourites of ours (figure 3, page 7). There is a strip of dunes covered with marram grass to the west, with beaches to north and south. Usually the northern beaches of islands are not so interesting because they are more exposed, but Feall Beach is the exception. It is north-facing but sometimes with a marvellous tideline. There may be a concentration of small shells washed in to the west and a ribbon of small shells distributed across its mile or so of length. Even in drizzle I scour the tideline for as long as I can! The dunes and beyond are now under the protection of the RSPB as they are one of the last strongholds of the corncrake, rather unimpressive looking, and only its awful cry gave it away. It is hard to cross the high dunes because they are featureless. On our first attempt, we lost ourselves near the southern beach having thought we were going due north. Beyond this dune section is a mile or more of damp heath quite hard to cross. The flowers are beautiful, spotted orchids everywhere and at one point the lesser butterfly orchid. On the last stretch of dune, bloody cranesbill makes a memorable show in June. We aim for the cable crossing point to get to the western beaches where not that many people venture. Here, are small sandy coves that get a vast quantity of shells washed in. I have never seen so many cowries. This seems to be due to the offshore positioning of the island Gunna funnelling the tide inshore. Beyond is the Isle of Tiree.

I could go on - Shell Bay Herm, Princes Strand Eriskay; in fact I loved most of these beaches before I even got involved with molluscs. Islands are very special places for me.



In May 2002 taking a tape recorder with her, Jan Light paid Tom Pain a visit for a chat over his recollections, at his home in Rainham, Kent

So Tom, can you take me back to your earliest recollections of an interest in molluscs?

Oh yes, I started as an honorary assistant to the curator of the Chelmsford and Essex Museum. One of my first tasks was to look at a box of shells. And I've been interested in them ever since!

This would be back in your early 20s?

organised by the government of British Guiana to go to Mount Rorima. It was the inspiration for Conan Doyle's 'Lost World'. The mountain had been described previously by a German explorer called Schromberg - he was the first European to see it. I was lucky to get on the expedition which was called the Three P's: Peberdy, Pain and Pinkus. It was an unbelievable experience. The largest mammal on the top of the mountain was a small mouse! It's a large, flat-topped plateau with a wonderful view and which nowadays you can visit by a chopper - the Prince of Wales has been there. So you can just fly there, but we went on foot and by canoe. We had 35 Indian porters who carried our equipment on their heads. It was a wonderful trip which took about 6 weeks. The object was to go and collect plant and animal specimens on the mountain and its environs. Mainly, I

business with him. The hotel is long since gone, it is part of the Montego Bay International Airport. So I went from British Guiana to Port of Spain in a flying boat which was quite an experience! They were used by the RAF in the war. Then I took a passage in a Dutch vessel called the *Simon Bolivar* from Port of Spain to Kingston, Jamaica. This would have been in the late '30's and I stayed there until 1941.

During my time there I collected snails in a karst limestone area called the 'Cockpit country'. We used to collect and sell them to an American dealer called Walter F Webb, the only dealer at the time. And we used to get a very good price for them. This was before the war. Webb was in business for a very long while. He's written a book on landshells. I never met him but we corresponded.

In conversation

Yes, this would be in the early 1930s. It wasn't a bad little museum. I was asked to sort out the Ritson Collection which contained some *Ampullaria* and this started my lifelong interest in the Ampullariidae. At the time I was registered at Imperial College, for a geology degree but I packed this in when I was offered a job as a curator at the Georgetown Museum in British Guiana. I've never regretted it because the experience was incredible. I'd never been to the tropics before, the climate is dreadful, the temperatures between 90 and 95 degrees and the air humidity is at saturation point. Georgetown is 4 ft below sealevel and it was a dreadful place to live! The tour of duty was for 3 years with an option to renew for longer. I left after 3 years to go to Jamaica, my deputy who was Guyanese took over and did a very good job.

So what happened then?

Well, I had been very lucky. During my 3 year tour of duty an expedition was

collected insects. My collection of butterflies is now part of the Hope Collection at Oxford.

Did molluscs form part of your collections on Mount Rorima?

Oh yes. I collected some Ampullariidae but also some land shells, quite interesting ones. One of them is said to be endemic to Mount Rorima. There were actually very few molluscs at the summit, which is an enormous sandstone plateau - not a haven for molluscs - if it had been limestone it might have been better. But it was fantastic to know you were going somewhere that was difficult to get to and hadn't been visited for half a century.

So you had completed your three years employment and taken part in this expedition. What happened after the three years were up?

I went to Jamaica. I'd been in touch with the owner of the Chatham Hotel in Montego Bay with a view to going into

So your earliest interests were definitely non-marine, but at some point you must have developed an interest in the marine ones?

Oh yes, I developed an interest in tropical marine shells in Jamaica. I can't swim but my business partner's daughter, Nellie Foster could swim like a fish and she became a very keen collector. We sold the marine shells to Webb as well. At that time a clergyman, the Reverend Wrigley, was Vicar of Falmouth just along the coast from Montego Bay. He was a keen collector with a very nice shell collection. He came to England after the war, settled on the Isle of Wight and brought his collection with him which he finally presented to Richard Preece's mother. And when she died it became the property of Richard. He wished to dispose of some of the collection so he gave some of it to my wife, Celia - that is some of the shells that Nellie and I had collected in Jamaica! There's one on that shelf there, *Strombus gigas*.





So this is Richard Preece of this Society we are talking about? The shells you collected passed, by a series of coincidences, through these various pairs of hands and finally fetched up again in your own home as the property of your wife!

Yes. Those four cassids there were also collected by me in Jamaica.

In the end the hotel business ran out of money and I decided to come back to England. I booked a passage on one of the Fyffes banana boats, I was one of 2 passengers. We had got somewhere out in the North Atlantic when we were torpedoed. So we took to the boats because our ship sank - mind you she took a long time to sink because she was loaded with bananas. She also had a deck cargo of grapefruit; we picked up as

inches of water permanently in the bottom.

We arrived at Buenos Aires just before Christmas 1941. The mate and I were the first distressed British seamen to arrive in Buenos Aires. The British community, which is a large one, made a great fuss of us. We sailed up the River Plate past the *Graf Spee* and the mate and I spent Christmas with the Ambassador and his Lady. They bought us new clothes and new shoes and we were eating strawberries in the garden of the Embassy in Buenos Aires on Christmas Day. The rest of the crew were all looked after by the Mission to Seamen.

What a contrast from spending 7 days afloat with sixteen other people not knowing whether you were going to be picked up or not, to fetching up at the British Embassy in Argentina in time to

Yes and we were given a free ticket to wherever we wanted to go and I got a ticket to Brentwood where my father lived; my mother had died in 1928. My father wasn't expecting me.

Did he know what had happened to you?

Oh yes. Two days after I was shipwrecked the Admiralty sent a message to my father saying I had been lost at sea and they didn't know if there had been any survivors. Then they sent another message from Buenos Aires to let him know that I had been picked up. Well, as the war was on, I had to join the Army. I was placed in the Royal Corps of Signals and I was in it for a year and then I was transferred to the Royal Army Education Corps where I spent the rest of the war, based at Dover until I was demobbed. The first job I got was in

with - Tom Pain

many of these grapefruit as we could because we knew they would be ideal to supplement our rations on our lifeboat even though they were very good. There were 17 of us in my boat and we were afloat for 7 days, we never expected to be picked up. There were 4 ships' lifeboats in all and 2 were never heard of again. The Captain's lifeboat was picked up by a Free French destroyer, and taken to Halifax. We were picked up by an outward bound Royal Mail motor vessel bound from Liverpool to Buenos Aires. So we had to go all the way to Buenos Aires which was thousands of miles south of where we had started! The crew made a great fuss of us. They had no passenger accommodation so they let us sleep in their bunks. We got to Buenos Aires alright but we were stopped once by a British cruiser and the ship's doctor came on board to look at our feet which were in an awful state. We all had to have our shoes cut off and my feet have never been right since!! They had swollen very badly because they had been constantly wet because the clinker built lifeboat had 6

spend Christmas.

I'll say! I had said to the mate "You know our chances are nil" and he said "I couldn't agree more, but don't tell the others." Anyway we had to wait for passages to be arranged from Buenos Aires and we got them on the Blue Star Liner the *Andalusia Star*. The vessel was laden with meat and we were the only passengers. Eating in the dining room was like eating in the Albert Hall! On our voyage back we were diverted by the Lord of the Admiralty to the Cape Verde Islands. When we got underway again we joined a convoy going to England. Fine, except we couldn't keep station because the convoy was so slow. In the end the Convoy Commander told our Captain to get out of it! The *Andalusia Star* could do 20 knots and the slowest ship in the convoy could only do 9. So to my relief we got to Liverpool under our own steam.

Home at last!

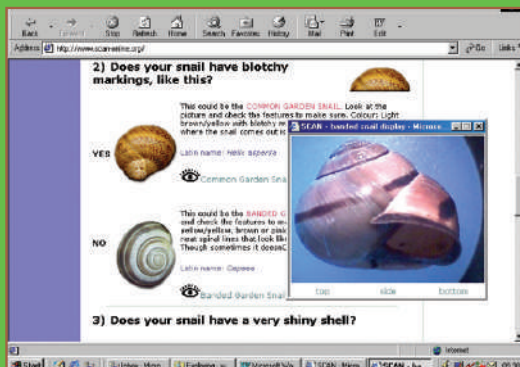
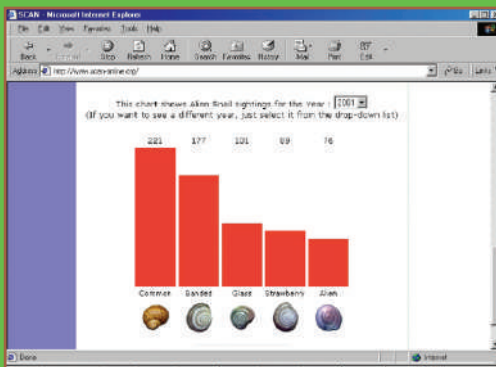
Chatham at the glass house (the military prison) and I was sent there to try and educate the illiterates. Hopeless! They didn't want to learn! They told you they didn't want to get killed and they were going to stay in the nick. I used to write letters for them to their wives "What do you want to say, soldier?" Then I got transferred to Dover, to the Education Centre there, as a Sergeant Instructor. I used to take some of them on geological field trips. One of them was a chap who was at Imperial College, and after the war he became a Professor there, Douglas Sherman. I remember him coming in one morning and I said "What can I do for you, sailor?" and he said "I'd like to join your geology class".

So this is perhaps where your liking for running field trips first started and this brings us to your membership of the Conchological Society. How did that come about?

continued on page 20



Snail search



1. *Hygromia cinctella* (photo, Derek Rands)
2. Screen from Scan online, showing graph of the results so far
3. Screen from Scan online, showing interactive key
4. Map of distribution of *Hygromia cinctella*
5. Ecofun day, and children identifying their snails



Do you have 'alien invaders' living in your backyard?

Help us to find out more!

The National Museums & Galleries of Wales run an environmental education network called SCAN (Schools & Communities Agenda 21 Network). SCAN hosts a series of projects that monitor local environments and wildlife. SCAN's most recent project 'SNAIL SEARCH' is working with schools and communities in order to find the whereabouts of certain snails across England and Wales. The project's main aim is to track down the 'alien' Girdled Snail (*Hygromia cinctella*) and to use its distribution as an indicator that will hopefully help us answer some questions about local climate change. The project also succeeds in introducing people to the bio-diversity in their own backyards and reduces the snail's garden 'pest' image. The 'alien' girdled snail is of course, not from outer space but an alien species to Britain. It originates from the Mediterranean and may have reached Britain amongst imported garden plants. The first British record of this species was from Devon over 50 years ago. In the year 2000, these snails were found living in Cardiff and in other areas of Wales. So, last summer the Museum launched the SNAIL SEARCH Project to pinpoint the current distribution of the 'alien' girdled snail. The snails included within the survey were the common garden snail (*Helix aspersa*), banded garden snail (*Cepaea* spp.), glass snail (*Oxychilus* spp.), strawberry snail (*Trichia striolata*) and the 'alien' girdled snail (*Hygromia cinctella*). Most of the participants had never seen or heard of the latter three species before taking part in the survey.

Can Mini-beasts Help Us to Record Local Climate Change?

Within the news we often hear reports that

one of the effects of global warming would be that mosquitoes and other mini-beasts from warmer climates could invade our lands and move into our backyards. So, in this investigation, SNAIL SEARCH hopes to find out if the distribution of this Mediterranean snail is spreading to typically colder regions of Britain and if the changes relate to changes in our climate. SNAIL SEARCH hopes that school-teachers will take on the exercise within the playground, year after year, to obtain a good representation of any changes in the 'alien' snail's distribution and to increase the viability of the results. To sustain teacher and pupil interest SNAIL SEARCH plans to produce additional educational activities and experiments that can be done as part of the search. A current consideration plans to help pupils investigate how different habitats and conditions can affect variation within different snail species.

Getting the public involved

Most of the success of the SNAIL SEARCH project is probably attributable to the title 'Do you have 'alien' invaders living in your backyard?' though other factors such as its distribution throughout schools, have played an important role. The project was designed by educational and curatorial staff, not only to find the 'alien' snail but also to offer users experience in identifying local animals, which is a requirement of the upper primary school science curriculum. Many of the more common snails were included in the chart because it was felt important that everyone using the chart, wherever they lived, could identify at least one species - whether or not they found the 'alien'. The chart enclosed uses friendly descriptions like, 'is it bigger than a five pence piece' and 'is it shiny' together with some simple diagrams that could easily be photocopied by schools. SCAN produced a SNAIL SEARCH website (www.scan-online.org) where users could double-check their findings and take a closer look at the features and variation of each snail species. Dynamic maps and graphs enabled users to input and store their results on-line. A thank-you page also listed the names of those who contributed.

The Results

In 2001 two hundred and fifty records were sent in from schools and families across Wales! The results show that 'alien' girdled snails were spotted in 5 Welsh counties. Three of those counties namely, Pembrokeshire, Cardiganshire and Denbighshire previously had no records of this species! This exciting news suggests that we could have three new vice-county records for this species, though, until these records have been verified SNAIL SEARCH cannot be certain. The SCAN Officer that co-ordinates the project is currently getting in touch with the schools and the families within these counties to make certain that the snails are being identified correctly. The distribution of the 'alien' girdled snail as recorded in 2001 is pictured on page 18. By studying the map you will notice that there are no records from England when the 'alien' is known to exist within many English counties. This is basically due to the fact that the project was only initially promoted throughout Wales. Recently, during Science Week 2002 the project was promoted throughout schools in England and SNAIL SEARCH hopes that members of the Conchological Society will help to further promote it.

Accuracy & Verification

To avoid any mis-identification, participants that find the 'alien' snail are asked to send in an empty shell. This system works fine when empty shells are available, though when only live snails are found the results require verifying. If you are familiar with *Hygromia cinctella* and would be interested in lending a few hours of your time to verifying results then please get in touch! Help will only be required when results are received without attached specimens and SNAIL SEARCH would get in touch and organise any necessary arrangements.

National SCAN Project Officer
Danielle Cowell, Education Department
National Museum & Galleries of Wales
Cathays Park, Cardiff CF10 3NP
Tel: (02920) 573304 E-mail:
danielle.cowell@nmgw.ac.uk
www.scan-online.org





Tom Pain continued

I had visited the BM(NH) to identify the Chelmsford shells and met Major Crawford who was Keeper of Molluscs. He had introduced me to Hugh Fulton before the war. Hugh was a member of the Society, a very distinguished shell dealer and a good malacologist as well. He described many species and some are named after him as well. Like *Cypraea fultoni* - but he'd turn in his grave if he knew that now costs hundreds of pounds! He wouldn't believe it. He was a partner with the Sowerbys, GB Sowerby 3rd. They had a business at Kew in a riverside boathouse and when Sowerby died in 1916, Fulton took the business over and I got to know him socially. He was a nice man, an accomplished violinist and he specialised in the works of Mozart. His wife was manager of a shop at South Ken, an Art shop, she survived him by a long time. She was left with the shell business, the vast collection and the war was on. The late Arthur Blok and Guy Wilkins tried to see if they could run the business for her but because of the war they couldn't. She had to sell the shells. And I was lucky because I bought Fulton's collection of land and freshwater shells. I paid much too much for it but I had been left quite a lot of money so I could afford it! She sold the rest to a lady with a stately home and I believe this collection is still in that stately home which now belongs to the National Trust.

And so it was through Hugh Fulton that you became a member?

He'd been a member of the Society since the '20s and probably earlier, so had G B Sowerby. When I first went to the meetings it was in the NHM during the war. Oh boy! About 6 of us used to sit in a little room and Bernard Verdcourt and I were very much the juniors. There were men like Tomlin, Wrigley, Winckworth - all the greats and I knew them all. The meetings were tiny and the Society didn't really grow until after the war.

What was the trigger for growth do you think? People with less pressure in their lives and more time?

Yes. I'm sure when the war was over people found they had more spare time.

I'm not sure how many post-war members there still are in the Society. I can only think of Bernard and myself.

Who else do you remember from those early years?

I got to know Major Matthew Kimble Connolly of the Natural History Museum through his secretary Margie. He looked after the Mollusca collections in the Museum during the war and he died in 1947. His son Cyril Connolly is the well known author. Connolly was a character, I got on very well with him. He was invalidated out of the army with a broken pelvis and spent his life in a wheelchair. He had some interesting reminiscences when you got him going. He'd tell you about Kitchener's Campaign in the Sudan where he was a junior lieutenant on Kitchener's staff. He shared a tent with young newspaper reporter. That was Winston Churchill. He never got over that! They had never met before and they found themselves sharing a tent and Connolly wasn't to know that this was the man who was to be a future prime minister - the man who won the last war for us.

Now we've jumped ahead a bit haven't we? When you came out of the army, was that when you went to work for British Rail?

That's right. I'd always wanted to. I worked for them for 35 years at St Pancras until I retired. I started as a guard because I had always wanted to ride on trains and I ended up as a senior conductor. I spent all my time on the trains and was never in an office.

Well, let's return to some fifty years of membership of the Conchological Society. What are some of your most prominent memories?

Some of my most vivid memories are of the first people I met. I can see them all in my mind's eye now. Men like Ronald Winckworth who was Secretary to the Royal Society. I used to visit him in his office at Burlington House. Arthur Wrigley, a palaeontologist who was an excellent draughtsman. He drew all his figures for his papers. I first met him

when he was President of the Malacological Society. This would be in about 1945. Then there was Tomlin, and Arthur Ellis (who led field meetings) and Len Stratton, both former Presidents of the Society. A member who was never President was Arthur Blok, he worked with Rutherford, the atom man. He was given the OBE for this work and was 96 when he died during my Presidency. I succeeded Bernard Verdcourt and I was succeeded by Terry Crowley and Terry by June Chatfield.

Coming closer to the present day we have Peter Oliver, Bob Scase and Walter Karo. Dear old Walter Karo was a character, an Austrian Jew who came to England in the late 30s, obtained British citizenship and served in the Royal Navy on a big cruiser, all through the war. When Walter died he had no immediate relatives and his collections became the responsibility of the Public Trustee who found that Walter had a nephew who lived in Amsterdam. Walter had a substantial sum in the bank which he only spent on shells, price was no object. I used to visit him at his bedsit in Finchley with a magnificent mahogany cabinet full of a fantastic collection of shells. It went to the NHM but was of no scientific value as there were no locality data and so the collection was used for display purposes, which I think would please old Walter!

Let's come back to shells and your interest in the Ampullariidae.

That happened in the 1930s when I saw some in the collection at Chelmsford Museum. Then when I went to British Guiana there were thousands of them. There were also plenty in the Sowerby-Fulton collection which I subsequently acquired. The late Dr Joseph Beckhardt, an amateur conchologist, said my collection of Ampullariidae was probably the most complete in Europe. After I bought the Sowerby-Fulton collection I went on adding to it. Half that collection is now at Cardiff and the other half will go there when the time comes. I'm very fond of these apple snails. They're rather attractive - enormous, round and very pleasing!

Well, that does bring us back to where we started. Thank you for talking to me, Tom.



bits & pieces

Bug-The-Slug

Do you have an idea that will keep your Garden plants safe? Then why not add them to the Bug-The-Slug web-site run by Centre for Alternative Energy staff. The CAT Publications website has made one rule: no chemical solutions as they are strictly organic and do not use slug pellets. They also published "A little book of Slugs" as well as selling a Slugs tipsheet. The site shows that most gardeners spend most of their free time devising strategies to eliminate their public enemy number one i.e. Slugs. The range of solutions shows that most people have their favourite method of despatch - from the gentle and surreptitious sport of Neighbours-Fence-Pitch-and-Toss, to the 'what a way to die' beer trap death experience, or the simple, but sadistic, scissor snip.

Go to <http://www.ihateslugs.com> and you will be linked to the CAT book purchasing site. Hit the bug-the-slug link for further suggestions by visitors or to make a suggestion yourself.

Caffeine control

Research shows that caffeine can repel or kill snails that eat plants (*Nature*, June 2002). Scientists in Hawaii have been experimenting with the use of caffeine, an environmentally acceptable and natural compound, as an alternative to snail- and slug-killing chemicals. It's not a new idea, but according to these researchers, it apparently hasn't been used commercially to reduce snail pests. Hollingsworth and colleagues applied a 2% solution of caffeine to the coconut husk-chips material in which orchids are grown. They found that this strength killed up to 95 percent of their principal pest snail, *Zonitoides arboreus*. The solution also seemed to deter recolonisation up to 35 days after treatment, in contrast to the metaldehyde, the common molluscicide. But beware, before you start applying solutions to your gardens, this level of caffeine may well affect the plant tissues if directly applied!! Further research continues on the applications of caffeine...

For more information see:

<http://www.sciencenews.org/20020629/food.asp>

Snaily jokes

On the web you can find lots of interesting facts and even Jokes. These sites change rapidly, so just try typing "snail jokes" into the Google search facility (<http://www.google.com>) and this is a sample of what you can find!:

What do you do when two snails have a fight?

Leave them to slug it out !

What is the definition of a slug?

A snail with a housing problem!

There was once a snail who always dreamed of becoming a race-car driver. One day he learned that his uncle had died and left him a large amount of money! Now his dream could be realized! He bought himself a race car, souped it up, and then painted large red letter S's all over it. When he was at his first race, a friend of his asked why had had painted his car that way. "Simple," the snail replied. "When people see me and my race car go zooming down the track, I want them all to exclaim, 'Look at that S-car go!'"

Life on the move?

Weather is becoming more changeable, with more stormy winters being forecast and increasingly hotter summers and milder winters. The current predictions suggest that over the next 50 years, there will be increases in mean annual air temperature of 2°C in the UK. This will result in changes in distributions of our flora and fauna. In molluscs, we have a wonderful tool to help monitor these changes. A small paper by Warwick & Turk (2002; *Journal of Marine Biological Association* **82**: 847-850) demonstrates the value of looking at fossil molluscan assemblages and comparing these to the local living assemblages in Sea Area 20. This shows that the taxonomic diversity in the Pliocene was similar to that recorded today, although some species now found in the Mediterranean were recorded as fossils but not living. The results differ from an earlier paper by Warwick & Light (2002; *Biodiversity & Conservation* **11**: 99-112), who demonstrated that although Gastropod diversity was similar, Bivalve diversity was lower.

Take a look at these papers, as these small projects show that it is possible to do interesting mini projects that over time will contribute to this bigger picture of monitoring climate change. Council is

currently investigating various small projects that could be undertaken with the participation of members.

Mary Seddon

Recipe

Despite a very long history as a constituent of the human diet, marine mussels were not widely eaten in the UK for much of the latter half of the 20th century. Given that we are an island race it is odd that our tastes in food from the sea have been, until relatively recently, so conservative. This is especially surprising when you consider that you only have to hop across the narrow stretch of water which separates England from the north French coast to find a completely different state of affairs. Happily, mussels are now much more widely appreciated in the British Isles. Although there are still places around the coast where you can confidently collect mussels from wild populations, it is probably better for your health and the stability of native mussel colonies to buy them from supermarkets and other reputable outlets when they are available, i.e. in season. Moules marinieres is the traditional recipe but in keeping with a growing appreciation of oriental food, we offer you the following alternative:

Moules à la thaïlandaise

Ingredients: 1 kg ready prepared mussels. 1 large chilli or more if you like, finely chopped. 1 heaped dessertspoon chopped lemongrass. 50g cream coconut block. juice of a lime (or half a lemon) 4 spring onions, chopped. 2 cloves of garlic, chopped. Half a bunch of fresh coriander, chopped. 2cm length of root ginger, finely chopped. Half a glass of water.

This dish is best cooked in a wok which has a lid. Sizzle the chilli, garlic, ginger and lemon grass in one tablespoon of vegetable oil over moderate heat for 2 minutes. Add the spring onions and cook for another 1-2 minutes. Reduce the heat and add the coconut plus half the water and heat until smooth. Stir in the remaining water and lime juice. Increase the heat, add the mussels and mix with the sauce. Cover and cook until the mussels have just opened (3-4 minutes) - it is a good idea to shake the wok or stir the contents after 2 minutes. Add the chopped coriander, stir in and serve immediately. Eat with fresh crusty bread.

A new invertebrate organisation: Buglife - The Invertebrate Conservation Trust

The Conchological Society has, for 10 years, attended the Joint Committee for the Conservation of British Invertebrates (JCCBI), recently renamed Invertebrate Link (IL). This body has representatives from both governmental (e.g. English Nature, Environment Agency) and a wide range of non-governmental organisations and societies (e.g. National Trust, Royal Entomological Society, Butterfly Conservation). IL holds biannual meetings to discuss a wide range of invertebrate conservation matters. Without paid staff and a financial base IL has, however, limited ability to progress the integration of invertebrate conservation. The problem was addressed in 1996 at an JCCBI conference titled *Unity of purpose for invertebrate conservation: maintaining the biodiversity of British Invertebrates*. At this event Alan Stubbs stated, "as yet there is little co-ordination or defined unity of purpose between the various national invertebrate societies in Britain". Following the conference IL produced a Green Paper explaining the need for a new invertebrate conservation co-ordinating body and outlining its possible role, structure and organisation.

The Green Paper highlighted the fact that, with well over 30, 000 British invertebrate species, there was then no single body speaking for invertebrates as a whole. Whilst organisations such as Butterfly Conservation, Conchological Society and RES were concerned with single invertebrate groups, larger bodies such as Friends of the Earth and Worldwide Fund for Nature usually had no specialist in-house invertebrate teams. There was also an increasing need from organisations managing land areas for conservation purposes such as the county Wildlife Trusts and RSPB for invertebrate input into their management plans.

The Green Paper highlighted the need for an invertebrate organisation to work in five main areas:

- Biodiversity Issues - in relation to the national Biodiversity Action Plan initiatives, to receive, co-ordinate and forward (e.g. to governmental

organisations) information from invertebrate groups, particularly in relation to Habitat Action Plans (HAPs) where a united response is vital.

Additionally a new organisation could help to keep members informed of national BAP news

- Supporting Campaigns – in defence of threatened sites or for changes in agricultural and water management strategies.
- Education and training – to raise public awareness of the fascination of invertebrate life, its importance in the environment and the many and varied threats that it faces
- Collecting and exploiting invertebrates – Working to ensure the continued freedom to collect invertebrates for educational and scientific reasons, whilst monitoring the impact of commercial pressure upon invertebrate populations
- Survey work – targeting or arranging survey work to be undertaken

As a consequence of the widespread support from IL members, the Invertebrate Conservation Trust (ICT) was set up as a limited, charitable company in 2000. In March 2001 the ICT was launched at an IL conference (where one of the main talks was given by David Aldridge, focusing on the conservation importance of freshwater mussels) where the basic structure was publicised and discussed. The ICT is not a membership organisation, but rather a body co-ordinating and working with already established bodies. Later in 2001 the ICT appointed its first full time staff; Dr Matt Shardlow (formerly Reserves Biodiversity Ecologist with the RSPB) as Director of Conservation and Dr Alex Ramsay as Biodiversity Project Manager. The appointment of a full time staff is vital to the long-term success of the ICT and was one of the reasons why Invertebrate Link could never adequately deliver the 5 targets outlined above.

The Conchological Society was one of the first organisations to welcome the formation of the ICT and in early 2002 we became corporate members allowing us to play a full part in ICT business.

Twenty eight invertebrate organisations, including all of the governmental bodies welcomed the formation of ICT.

In addition to dealing with 'serious' scientific governmental organisations and NGOs, the ICT needs, if it is to successfully advance the 'invertebrate cause', to engage with the public and wider media. It was felt that the name Invertebrate Conservation Trust was less friendly than that of organisations such as Plantlife, Birdlife and Butterfly Conservation. As a result, in early 2002 a name change to 'Buglife – The Invertebrate Conservation Trust' was proposed. Whilst appreciating that not all invertebrates are 'bugs', nobody was able to suggest a better alternative. Member organisations voted on the proposed change and despite some major reservations, the new name was adopted. Shortly afterwards Buglife adopted a logo with a distinctly molluscan inspiration (see background). This reinforces very well the all-inclusive invertebrate intentions of the new organisation!

In its first year Buglife has been busily engaged in a wide range of activities including some from all of the five priority areas mentioned in the IL Green Paper. Perhaps one of the most interesting initiatives is the integration for DEFRA of invertebrate habitat management advice for the 32 national HAPs present in England. Several of these Priority Habitats, such as coastal/floodplain grazing marsh, saline lagoons and upland calcareous grassland support some of our rarest and most endangered molluscs. It makes eminently good sense to integrate and co-ordinate the conservation needs and requirements of the different invertebrate groups to achieve the coherent management that balances the specific requirements of each invertebrate group.

Buglife produces an Action Update newsletter twice a year and this, together with other details about the ICT can be viewed on their website [HYPERLINK "http://www.buglife.org.uk"](http://www.buglife.org.uk)

www.buglife.org.uk

Martin Willing

Diary of Meetings - Conchological Society

Programme Secretary: *Ron Boyce, 447c Wokingham Road, Earley, Reading, Berkshire RG6 7EL*

IMPORTANT: Please remember to inform the leader if you are attending a field meeting. If you are held up in traffic or your public transport is delayed, it may be possible to ring the Programme Secretary on 07941 094395 on the day of the meeting for information on the location of the field site being surveyed.

Members attending indoor meetings in the De La Beche Room at the Natural History Museum, which is not in a public access area, will need to sign in at the visitors' window in Museum Lane. Please remember to sign out again when leaving so that Security know that you have left the building.

Key to meetings:

- NHM** = Natural History Museum, London, indoor meeting
- FIELD** = Field Meeting at outdoor location
- WKSHP** = Workshop on molluscan topics

FIELD – *Saturday 29 March*
Blockley Quarry, Gloucestershire
Leader: David Long (01242 527673)

This is a return visit to the Northcot Brick & Tile Works (grid ref. SP 182369) with its excellent exposure of the *Ibex* zone of the Lower Lias. This field meeting is made possible by the kind permission of the management of the works. Please note that visitors must be over 18 for Health and Safety at Work indemnity reasons. Waterproof footwear is required but not a hard hat.

Meet at the site at 10:30h. Please inform the leader if you plan to attend this meeting.

FIELD – *Saturday 5 April*
Hampshire hangers Leader: Terry Wimbleton (023 9247 0048) (home)

Possible sites for *Phenacolimax major*. Meet in the car park at Petersfield railway station, grid ref. SU 744235 at 10:30h (subject to train times). Bring lunch.

NHM – *Saturday 12 April*
14:30h in the De La Beche Room.
Annual General Meeting with Presidential Address by

Dr Adrian Rundle (London) on the subject of 'Marine mollusca in microfossil samples – some special examples'.

FIELD – *Wednesday 14 May to Sunday 18 May 2003*

Isle of Arran, Scotland
Leader: William Penrice (01592 754521)(home, evening only)

A meeting to study the marine Mollusca of the coast of Arran. Arran is a fabulous location for the study of natural history in general and has often been described as Scotland in miniature. It boasts tremendous and dramatic coastal locations, courtesy of an exciting and variable geology which has been studied by generations of students. The Society has not visited the island previously and a very good list of a range of interesting species is expected. We also hope to enjoy some of the wider natural history and some non-marine mollusc recording, particularly as the tides are relatively late in the day. The meeting will be centred on Brodick, which has a wide range of accommodation, including camping. Brodick is also the main town and ferry port. The provisional programme is as follows:

Wed 14 May Corrie. Meet at 13:00h to look for non-marine molluscs in the limestone outcrops and 15:30h for marine at NS 024435 (low tide 17:20h).

Thursday 15 May Lochranza. Meet at Brodick Tourist Information (Ferry Pier NR 022359) at 14:00h (low tide 18:10h) to look at marine molluscs on the rocky Newton Point to Cock of Arran coast. This is also the site of Hutton's famous geological unconformity.

Friday 16 May West Arran. Meet at Brodick Tourist Information (NR 022359) at 14:30h to look at coastal habitats between Blackwaterfoot and Machrie. We will also visit the Machrie Moor stone circles (low tide 19:00h).

Saturday 17 May South Coast. Meet at Brodick Tourist Information (NR 022359) at 15:00h. (Low tides are at 07:20h or 19:40h).

Sunday 18 May. Non-marine recording to be confirmed.

FIELD – *Saturday 31 May*
Old Sulehay, Northamptonshire
Leader: Brian Eversham (01954 205140)(home)

This visit is to a newly acquired Wildlife Trust reserve on Oolitic limestone and containing ancient woodland, some limestone grassland, former quarries and a spring-fed mire site. There are areas of boulder clay, ironstone and small lenses of acidic sands, adding to its diversity. The molluscs are not well known yet, but the site is known to support many rare insects. In the oak-ash forest, *Cochlodina laminata* and *Lehmannia marginata* are abundant, and *Columella edentula*, *Acanthinula aculeata*, *Oxychilus helveticus*, *Trichia plebeia* and *Helicigona lapicida* have been recorded. The nearby quarry and grassland support *Vertigo pygmaea*, *Pupilla muscorum*, *Cerzuela virgata*, *Candidula intersecta*, *C. gigaxii* and *Helicella itala*: it would be useful to know the extent of the current population. A spring-fed mire with a shallow tufa-forming stream and willow carr has *Euconulus alderi*, *Arion silvaticus* and *Ashfordia granulata*. Many more species should be present in such diverse high-quality habitats.

Meet at grid ref. TL 054983, at the entrance to the nature reserve on the east side of the road, opposite the entrance to Old Sulehay Lodge, at 10:30h. The gates will be opened, and cars will be parked within the quarry. A detailed site map and more information on the species recorded will be provided in advance of the meeting to those who contact the leader (email: beversham@aol.com).

FIELD – *Saturday and Sunday 21-22 June*
Knightwick, Worcestershire
Leader: Harry Green (01386 710377)(home), (07778 198476)(mobile)

A meeting to study the Mollusca of tufa sites in wooded dingles along the River Teme valley upstream of Knightwick, mainly between Stanford Bridge and

Newnham Bridge. Visitors may be able to visit Hell Hole, Devil's Den, Deaths Dingle or Hanley Dingle, deep side valleys irrigated by lime-rich water from the *Psammosteus* limestone and containing tufa deposits of every size and shape. These sites are little explored for molluscs although some are known to have a rich fauna. Given time, there are also nearby Silurian limestone pastures worthy of study. The river will also be worth sampling.

Meet on the Saturday in the Talbot Hotel car park at Knightwick (SO 733560) at 10:30h.

NHM – *Saturday 5 July*
14:30h in the De La Beche Room.

We welcome as Guest Speaker Paul Elliott from Cambridge University on the subject of 'The distribution and effects of the zebra mussel in Britain and a new method for its control'.

Abstract

The zebra mussel, *Dreissena polymorpha*, is well documented as being one of the North America's most significant economic pests, annually causing billions of dollars of damage in industrial water intakes. Manual removal is temporary and expensive, leading to a huge industrial investment in additional preventative measures. Chemical treatments, particularly chlorination, are generally popular due to their effectiveness and low costs of installation. However, environmental legislation on discharge concentrations often impedes their use. Also, mussels can often counter the effects of these treatments by closing their valves upon detection of the chemicals, greatly reducing treatment efficiency.

This project has two foci: Firstly, we are charting the current distribution of zebra mussels in British rivers, and studying the problems that they currently cause to British industry and native fauna.

Secondly, we are developing a novel and efficient method for the control of zebra mussels. We are doing this by producing toxins

encapsulated in edible coatings. These toxic particles can be filtered and concentrated within the mussel, reducing the total quantity of toxin that must be applied. We are engineering the edible coatings to release their payload once inside the mussel, thus avoiding the mussels' defensive responses. The coatings will also have degradative properties such that upon environmental discharge, the toxin will have leaked out and been diluted to harmless levels.

FIELD – *Saturday 12 July*
Winchester, Hampshire Leader:
Martin Willing (01730 814790)(home)

This is essentially a freshwater meeting to record in the Hampshire and Isle of Wight Wildlife Trust reserve at Winnall Moors. Further Hampshire Wildlife sites will be visited in the afternoon if time permits.

Meet in the car park at Winchester railway station, grid ref. SU 477299 at 10:30h (subject to train times). Bring lunch, Wellingtons and water sampling equipment.

WKSHP – *Sunday 3 August*.
Reading Museum, Darwin Close.
Cowries. Advance bookings required to June Chatfield (01420 82214)(home).

NHM – *Saturday 13 September*
14:30h in the De La Beche Room.

We welcome as Guest Speaker Dave Clark from the Zoological Society of London on the subject of 'Recent developments in molluscan conservation at the London Zoo'.

FIELD – *Saturday and Sunday 27-28 September*
Marine meeting in the Exmouth area.
Leader: Janet Sawyer (01395 263751)(home).

FIELD – *Saturday 11 October*.
Ightham Mote. Leader: Ron Carr (01622 765047)(home).

NHM – *Saturday 15 November*
14:30h in the De La Beche Room.

We welcome as Guest Speakers Jan Light and Ian Killeen on the subject of 'Molluscs in the modern day culture of Rodrigues'.

WKSHP –
Saturday 29 November

The annual workshop held in Woking offers Members the opportunity to receive tuition on identifying difficult groups.

Bookings to Judith Nelson (01483 761210)(home).

NHM – *Saturday 13 December*
14:30h in the De La Beche Room.
We welcome as Guest Speaker John Llewellyn-Jones from West Mersea on the subject of 'Mother-of-pearl molluscs, how they are worked and uses'.

Other events in the UK

SLUGS AND SNAILS: AGRICULTURAL, VETERINARY AND ENVIRONMENTAL PERSPECTIVES

A joint symposium hosted by the Malacological Society of London & the British Crop Protection Council 8-9 September 2003
Canterbury Christ Church University College, Canterbury, Kent, UK

The experience of both farmers and researchers will provide a basis for the discussion of the issues of pest control relating to slugs and snails on land and in water. More general aspects of conservation and biodiversity will be relevant to the discussion, as will newer approaches of molecular biology

Sessions will include:-

- Economic impacts
- Physiology and function
- Behaviour and ecology
- Prospects for improved control
- Integrated pest management
- Population regulation and economic and environmental considerations
- Snail farming
- Conservation, evolution and biodiversity
- Molluscs, molecules and man

Further information:-
Prof. G.B.J. Dussart
Email gbd1@cant.ac.uk

British Shell Collectors' Club
Shell Show, Oct. 26, 2003
Napier Hall, London, England
Contact: Kevin Brown.

The Malacological Society of London, Molluscan Forum,
November 2003 Venue: Natural History Museum, London.

This informal meeting is designed to bring together people starting their research on molluscs, to give them the opportunity to present and discuss their work and to compare notes on

methods and problems. Attendance is open to all, but speakers and poster presenters should be research students, post-doctoral researchers, undergraduates starting molluscan projects or dissertations, and amateurs engaged in substantial projects, which have not yet been published. Any topic related to molluscs is acceptable: palaeontological, physiological, behavioural, ecological, systematic, morphological or molecular.

Forthcoming events overseas:

XIII BELGIUM INTERNATIONAL SHELL SHOW *May 3-4, 2003*

Antwerp, Belgium Schijnpoort, Schijnpoort Straat, 2180 Ekeren-Donk, Belgium
Contact E-mail:
bvc.deroover@village.uu.net.be

III International Mediterranean Malacological Congress *June 2003* La Rochelle (France).

AMERICAN MALACOLOGICAL SOCIETY MEETING *June 26-29, 2003*

Venue: Ann Arbor, MI.
Contact: Diarmaid O'Folghil,
E-mail: diarmaid@umich.edu

CONCHOLOGISTS OF AMERICA ANNUAL CONVENTION

July 17-21, 2003
Venue: Tacoma Sheraton Hotel,
Tacoma, WA. Contact: Tom Rice,
E-mail: ofseashr@sinclair.net

24th INTERNATIONAL SHELLS & FOSSILS BOURSE *Sept. 2003*.

Salle Polyvalente, Ottmarsheim,
France

ANNUAL GERMAN SHELL FAIR *Oct. 2003*

UNITAS MALACOLOGICA WORLD CONGRESS OF MALACOLOGY

11-16 July 2004

Venue: Perth, Western Australia
Major Symposia planned:
Phylogeny of molluscs, Molluscan aquaculture and fisheries, Ecology of molluscs. There will also be special workshop sessions on particular groups and topics proposed over the next year. In addition to the paper and poster sessions there will be a full social

programme, with excursions on Wednesday tentatively planned to Rottneest Island, a dive expedition, river cruise to a winery, and tour of Perth and Fremantle.

Organised by Fred Wells
(wellsf@museum.wa.gov.au)

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