

planning to attend either of these sessions (01747 860146 home). Site maps and more information on the species, and also B&B details, if required, will be provided in advance of the meetings to those who contact the leader.

WKSHP – Saturday
26 November

Annual Molluscan Workshop

This meeting is being held by kind invitation of Judith Nelson at Hilbre House, Pembroke Road, Woking, Surrey GU22 7ED (01483 761210) from 10:00h prompt until approximately 17:00h. Please note Hilbre is a non-smoking property

Those attending should please bring a microscope and lamps (a few microscopes are available if booked in advance), Petri dishes or other dishes for sorting purposes, a fine water colour paint brush (00), tweezers/forceps, dissecting tools, if possible an extension lead and/or double electric plug, books to help identification, and a packed lunch. Coffee, tea and biscuits are provided.

As numbers for the workshop are limited, please confirm any booking made by 1 November so that it can be checked whether there are any places vacant. Those NOT confirming by 1 November will be taken as not wishing to attend and their place will go to someone else. No reminders will be given.

A fee of £5 will be charged to cover expenses. Accommodation is available for anyone coming from a distance but is very limited. PLEASE BOOK EARLY.

The programme for November 2005 is as follows but subject to change: mud snails [*Lymnaeidae*]. If you would like any other subject dealt with, please inform Judith by 1 November.

NHM – Saturday 10 December
14:30h in the Demonstration Room.

We welcome as Guest Speaker Trevor James from Monks Wood on the subject of 'The NBN network and wildlife recording'.

26th INTERNATIONAL SHELLS & FOSSIL BOURSE

Ottmarsheim, France
Sept. 17-18
Salle Polyvalente
Rue de la Priscine
Michel Rioual 2 Rue des Vergers

68490 Ottmarsheim, France

ANNUAL GERMAN SHELL FAIR Sept. 24-25
Oehringen, Germany; KULTURA Hall, Herrenwiesenstr. 12; Kurt Kreipl, Hoehenweg 6; D-74613 Oehringen-Cappel, Germany
E-mail: meeresmuseum@t-online.de

IV INTERNATIONAL CONGRESS OF THE EUROPEAN MALACOLOGICAL SOCIETIES

October 10-14 2005
Naples – Italy

Conference topics:

- Molluscan Systematics
- Molecular Systematics and Phylogeography of Molluscs
- Molluscan Reproduction and Development
- Molluscan Ecology, Biodiversity and Conservation
- Molluscan Aquaculture and Exploitation
- Molluscan Paleontology
- Open session

Several poster sections will be organized.

The works presented at Congress will be published on *Bollettino Malacologico*, official journal of the Società Italiana di Malacologia. The manuscripts delivered within October 14, after having been refereed, will be published with priority on the Congress Proceedings. The other works will be included in the ordinary issues of *Bollettino Malacologico*.

Abstracts must be submitted not later than 30 July, 2005. Abstracts must be submitted not later than 30 July, 2005. The registration fee,

including proceedings and coffee breaks, is €120.00 (€50.00 for students) after 30.06.05.

BSCC SHELL SHOW
October 29 2005
Napier Hall, Westminster London.
Admission free

British Shell Collector's Club Show is an opportunity to meet others and to seek advice from experienced shell collectors. There are displays for the prize categories or in specialities such as shell art, shell postage stamps. Marine freshwater and land specimens are shown. About 10 to 15 shell dealers take table space for display and offer for sale shells to suit both beginner's and expert's budgets.

Details of the competition categories are as follows:

1. One species
 2. One genus or family
 3. British - includes marine, land or freshwater
 4. Foreign - includes marine, land or freshwater
 5. Fossils
 6. Themed exhibit - this year's theme: the author Gmelin
 7. Shellomania - any entry that does not fit into any of the above categories
 8. Junior - 16 and under
 9. Junior - 11 and under.
- Open to the public

10th PRAGUE INTERNATIONAL SHELL SHOW
Nov. 19-20 Prague, Czech Rep.
MENZA CVUT, Jugoslavských Partyzanu 3, Prague; Contact Jaroslav Derka, Holeckova 51/370, 15000 Praha 5, Czech Republic
E-mail: jderka@volny.cz

**Annual General Meeting
8th April 2006**

Members are reminded that they can nominate candidates for election to the Council. Rule no 12. Candidates for nomination to Council shall be paid-up Members of the Society when nominated and when the votes are counted at the Annual General Meeting and shall be nominated by two Members. Nominations, other than those made by Council, shall be sent in writing to the General Secretary at least three months before the Annual General Meeting and shall be accompanied by a signed declaration of the candidate's willingness to serve.

Note: Nominations must be received by the Hon General Secretary for this particular Annual General Meeting not later than 30 November 2005.

contents

2
Society information
Society website

3
Sandwich Bay Field meeting
Ron Boyce

4
Conservation News

5-6
Lower Windrush Valley Meeting
David Long & Rosemary Hill

7
Fanshells near Plymouth. Exotic species
Mary Seddon

8-9
An Elusive Slug Pond survey
David Long
Peter & Pam Wilson

10-11
Molluscs in Trinidad & Tobago
Mike Rutherford

14
Pearls of Wisdom
Jan Light

15
Mystery object from the bronze age. Book auction
Jan Light

16-18
South Wales field meeting
David Long

19-20
Society records & Worldwide web
Steve Wilkinson

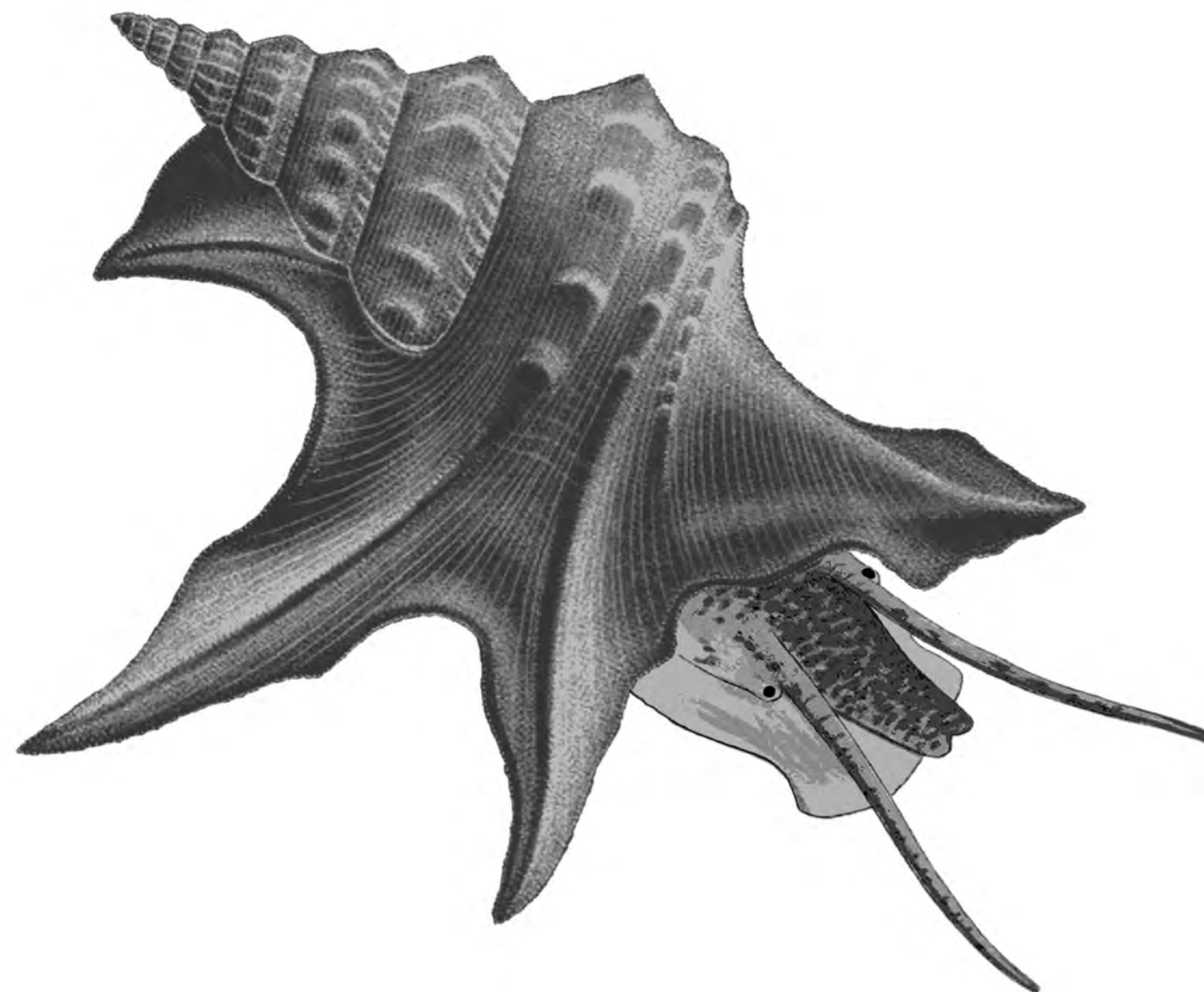
21-22
Uk BAP Steering Group meeting. UK BAP priority species review 2005
Martin Willing

23-24
Diary

Mollusc World

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THE MAGAZINE OF THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

Editorial

I'm pleased to see so many field meeting reports in this issue of *Mollusc World*. This exchange of information is important in raising the profile of, and interest in molluscs as well as being of interest to the society's membership. Which raises the question - are we doing enough to promote the importance of molluscs to the general public?

There has been debate recently on the justification of spending large sums of public money on species such as *Vertigo* or

Margaritifera. Indeed, I was asked this week, "what is the point of *Vertigo moulinsiana* - what does it do?" Good question - its easy enough to trot out all the usual stuff about how its a good indicator species of the health of a wetland and how it has its part in ecosystem functioning. However, does this actually mean anything to the general public. After all what fraction of a percentage of the population is ever going to see a *Vertigo* or a pearl mussel for that matter. Try as we may there is always going to be a giant leap of getting over the perception of "ugh, slimy creatures that eat my lettuces".

A very interesting publication is Stephen Kellert's '*The Value of Life*' in which he explores the attitudes of man towards animals and nature. The most important for the general populations of western cultures are strongly humanistic and moralistically influenced. Therefore as a scientific community we should also consider such aspects into argumentation in addition to the scientific and ecological arguments for securing mollusc biodiversity and conservation.

Ian Killeen

Mollusc World

Mollusc World 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.

Please send articles to:

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Rathfarnham, Dublin 14 Ireland.
Email: iankilleen@eircom.net

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>

Subscriptions

These cover 1 January to 31 December and are due on 1 January each year:

Ordinary Membership	£23.00
Family/joint membership (open to two people living at the same address)	£25.00
Institutional Membership (GB and Ireland)	£32.00
Institutional Membership (Overseas address)	£35.00
Student (in full-time education)	£10.00
Entrance Fee for new members	£1.00
Early payment discount (Ordinary, Family and Student Members) for paying the correct amount before 31 March	£1.00

Please pay by one of:

Sterling cheque drawn on a UK bank and made out to "The Conchological Society" to Honorary Membership Secretary: Mike Weideli, 35 Bartlemy Road, Newbury, Berks., RG14 6LD. Tel: 01635 42190, email: membership@conchsoc.org

Eurocheques are no longer accepted by UK banks.

Sterling direct transfer in favour of "The Conchological Society" to National Westminster Bank plc, Bolton Branch, PO Box 2, 24 Deansgate, Bolton, Lancs., BL1 1BN (IBAN: GB12 NWBK 0130 9906 5238 46, BIC: NWBK GB2L);

Standing order if you have a UK bank account.

If you pay UK income tax at the standard rate the Society encourages you to sign a Gift Aid declaration.

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1



2



3

1. Eric Philp and REH grab sampling stream
2. Brandy bottles *Nuphar luteum*.
3. Lizard orchid *Himantoglossum hircinum*
4. REH and Peter Topley
5. Recorders at the moth trap at the Bird Observatory

Field meeting at Sandwich Bay, Kent

5-6 June 2004

Ron Boyce

A very enjoyable two-day field meeting led by Eric Philp and based on the Sandwich Bay Bird Observatory Trust field centre at TR 355575 was held on 5-6 June 2004 in mostly brilliant weather. We met at the field centre from where we were very kindly driven by the field centre warden Kevin Thornton northwards to the old Princes Club House to start our field work.

In tetrad 35P we found live *Cochlicella acuta* and *Ceruelluella virgata* at the top of the beach, while the shore yielded shells of *Diodora graeca*, *Gibbula cineraria*, *Calliostoma zizyphinum*, *Tricolia pullus*, *Crepidula fornicata*, *Trivia arctica*, *Polinices catenus*, *Ocenebra erinacea*, *Nucella lapillus*, *Oenopota turricula*, *Antalis vulgaris*, *Nucula nitidosa*, *Nucula nucleus*, *Striarca lactea*, *Mytilus edulis*, *Ostrea edulis*, *Chlamys distorta*, *Chlamys varia*, *Pecten maximus*, *Aequipecten opercularis*, *Anomia ephippium*, *Parvicardium ovale*, *Cerastoderma edule*, *Mactra stultorum*, *Spisula elliptica*, *Spisula subtruncata*, *Ensis arcuatus*, *Angulus tenuis*, *Fabulina fabula*, *Macoma balthica*, *Donax vittatus*, *Circumphalus casina*, *Timoclea ovata*, *Corbula gibba*, *Pholas dactylus*, *Barnea candida*, *Zirfaea crispata* and *Sepia officinalis*.

Further up the coast in tetrad 36K we found live *Cepaea hortensis* just above the strand line among sea spurge *Euphorbia paralias* and sea holly *Eryngium maritimum*. The shells on the beach here were *Diodora graeca*, *Crepidula fornicata*, *Ocenebra erinacea*, *Nucella lapillus*, *Buccinum undatum*, *Mytilus edulis* (live), *Ostrea edulis*, *Chlamys varia*, *Aequipecten*

opercularis, *Laevicardium crassum*, *Cerastoderma edule*, *Ensis siliqua*, *Macoma balthica*, *Donax vittatus* and *Corbula gibba*. Further inland we found live *Cochlicella acuta*, *Ceruelluella virgata*, *Helix aspersa*, *Cepaea hortensis*, *Pupilla muscorum*, *Deroceras reticulatum*, *Cepaea nemoralis* and *Monacha cantiana* and dead shells of *Monacha cartusiana*. One of the joys of this section of coastline was the impressive range of flowering plants on the stabilised dunes, the most memorable of these being the lizard orchid *Himantoglossum hircinum* and the bedstraw broomrape *Orobanche caryophyllacea* with its wonderful scent.

In tetrad TR 36L we again found dead shells of *Monacha cartusiana* and live *Cepaea nemoralis* and *Helix aspersa*.

The following morning we arrived at the bird observatory among excited conversation about large numbers of small elephants! This was among a group of members of the SBBOT examining the contents of a mercury vapour moth trap and pleased with the record number of Small Elephant Hawk-moths *Deilephila porcellus* that had been caught that night. This survey is part of a long term study of local and migrant moths being carried out at the field centre. The group had with them a recently published identification book which for the first time illustrates live moths at rest rather than dead pinned specimens, and were making very good use of it.

We set out southwards this time and started by examining the shore in tetrad TR 35U, where we found shells of *Gibbula cineraria*, *Crepidula fornicata*, *Trivia monacha*



elliptica, *Moerella donacina* [new], *Macoma balthica*, *Donax vittatus*, *Timoclea ovata*, *Venerupis senegalensis* [new], *Mya* sp., *Barnea candida* and *Sepia officinalis*.

A ditch in tetrad TR 35T yielded the freshwater species *Planorbis planorbis*, *Lymnaea truncatula* and *Bithynia tentaculata*, while the New Cut in tetrad TR 35N contained *Valvata piscinalis*, *Potamopyrgus antipodarum*, *Bithynia tentaculata*, *Bithynia leachii*, *Lymnaea stagnalis*, *Lymnaea peregra*, *Planorbis planorbis*, *Sphaerium corneum* and *Oxyloma pfeifferi*. A ditch at Worth, also in tetrad TR 35N, had *Potamopyrgus antipodarum*, *Bithynia tentaculata*, *Bithynia leachii*, *Lymnaea peregra*, *Planorbis planorbis*, *Ancylus fluviatilis* and *Sphaerium corneum*.

One rather worrying feature about the freshwater habitats at these sites was the extreme luxuriance of the water weeds in what one would have imagined to be an oligotrophic environment. This sort of thing is happening in other parts of the country and does not bode well for the survival of the more sensitive species of

our native fauna and flora.

Sampling of snails on water weeds in the freshwater habitats was greatly facilitated by the use of a 4-hook grapnel which Eric had made out of an old galvanised wire coat hanger and a length of sheet lead. I was so impressed by the performance of this simple device that I made one myself and used it to good effect a few weeks later to sample Willow Lake at Linch Hill in the Windrush valley near Witney, Oxfordshire.

Other species found in square TR 35N were *Zonitoides nitidus* and *Deroceras reticulatum*.

We would like to express our thanks to Kevin Thornton and members of the SBBOT for facilitating the meeting and for making members of the Conchological Society most welcome at the field centre.



[new], *Ocenebra erinacea*, *Nucella lapillus*, *Hinia incrassata*, *Oenopota turricula*, *Antalis vulgaris*, *Nucula nucleus*, *Striarca lactea*, *Mytilus edulis*, *Chlamys varia*, *Aequipecten opercularis*, *Cerastoderma edule*, *Spisula*

Conservation News Operation Necklace hunts illegal pearl fishers

Operation Necklace is a new Scottish initiative started by the Partnership for Action Against Wildlife Crime. In a joint operation, the Scottish police force and Scottish Natural Heritage (SNH) aim to halt the illegal trade in endangered freshwater mussels. Pearl mussels now have full protection under Schedule 5 of the Wildlife and Countryside Act 1981, which was strengthened further in the Nature Conservation (Scotland) Act 2004. It is an offence to intentionally or recklessly kill, injure, take or disturb the mussels or their habitat. It is also illegal to sell or advertise pearl mussels for sale without a licence from the Scottish Executive. Jewellery shop checks last year showed the illegal pearl trade still exists and whilst there are now only 61 known breeding sites left in Scotland it is clear they are still being targeted by thieves hoping to find the pearls.

John Ralston, Licensing officer at SNH said: "We know that pearl fishing continues in Scotland, despite recent strengthening of the law, and the critical state of pearl mussel populations. There are now so few sites of pearl mussels left in the country that we are in danger of losing this special creature altogether. By launching Operation Necklace we hope to spread the word amongst anyone that might notice this illegal activity and report anything suspicious to their local wildlife crime officer." During

the crackdown on the black market, which is part of the Partnership for Action Against Wildlife Crime, police and river workers will be provided with information on the hot spots where pearl theft continues. A leaflet which highlights stronger legislation against people who fish for freshwater pearl mussels is downloadable from the SNH web-site and will be distributed to police forces throughout Scotland and in areas with rivers where the pearl mussels thrive.

Snails as pollinators

Bernard Verdcourt drew my attention to a paper one of his colleagues that might be of interest to other members. It describes the role of a snail in pollination of a plant based on observations made in France. Sea bindweed (*Calystegia soldanella*: Convolvulaceae) is a species which is mainly found on coastal dunes. Thierry Deroin (2000) reports that this plant is adapted in two ways for pollination by two different invertebrates; it has a range of insect visitors, but only one fly is small enough to seek nectar (Diptera: *Cetema cereris*). The other species which seemed to have been involved in pollination was the land-snail *Theba pisana* (O.F. Müller), which uses the plant both as a site for resting during the day and for foraging at night, snail brushes against corolla

Deroin, T. (2000) Remarque sur la biologie florale de *Calystegia soldanella* (L.) R. Br. (Convolvulacées) dans l'ouest du Cotentin. *Bulletin de la Société Botanique de centre-ouest, Nouvelle série* 31: 201-206.

from Mary Seddon

LOWER WINDRUSH VALLEY Conchological Society Meeting 17 July 2004. *David Long and Rosemary Hill*

Society members met Alison Hopewell, the Project Officer for the Lower Windrush Valley Project, at the Linch Hill Leisure Park (SP 417040) on a pleasant but comfortable day and visited three flooded gravel pit lakes. Gravel extraction here began in the 1960s, which puts an approximate start date on colonisation by plants and animals.

The pits were excavated in Pleistocene sands and gravels mainly derived from the Jurassic limestones of the Cotswolds, and rest on impervious Late Jurassic Oxford Clay. The environment is generally calcareous.

All three pits examined - Stoneacres Lake, Willow Lake and Christchurch

Lake are used for coarse fishing and also have large waterfowl populations. The pits are open with about two metres of shallow edge followed by a steep drop. There is a narrow wetland fringe with varying heights of vegetation.

Twenty-three species of aquatic molluscs were found (details in table).

Species	Vernacular	Stoneacres	Willow	Christchurch
<i>Valvata piscinalis</i>	Common valve snail	Live		
<i>Potamopyrgus antipodarum</i>	Jenkins Spire Snail	Common	Live	
<i>Bithynia tentaculata</i>	Common Bithynia	Live	Live	
<i>Bithynia leachii</i>	Leach's Bithynia		Old shell	
<i>Physa fontinalis</i>	Bladder snail	Shell		
<i>Physella</i> sp. (<i>cf. acuta</i>)	"Bladder Snail"		Shell	Live
<i>Lymnaea palustris</i> agg	Marsh Pond snail	Fresh shells		
<i>Lymnaea stagnalis</i>	Great Pond Snail			Live
<i>Lymnaea auricularia</i>	Ear Pond Snail	Shell	Live	
<i>Lymnaea peregra</i>	Common Pond Snail			Live
<i>Lymnaea truncatula</i>	Dwarf pond snail	Live		
<i>Planorbis planorbis</i>	Margined ram's-horn	Shell		Live
<i>Planorbis carinatus</i>	Keeled ram's-horn	Shell		Live
<i>Gyraulus albus</i>	White ram's horn			Live
<i>Anodonta cygnea</i>	Swan mussel		Shell	
<i>Sphaerium corneum</i>	Horny orb mussel	Live		
<i>Musculium lacustre</i>	Lake orb mussel	Fresh shell		
<i>Pisidium casertanum</i>	Caserta "Pea mussel"	Live		
<i>Pisidium milium</i>	Quadrangular "Pea mussel"	Live		
<i>Pisidium subtruncatum</i>	Truncated "Pea mussel"	Shell		
<i>Pisidium henslowianum</i>	Henslow's "Pea mussel"	Live	Live	
<i>Pisidium nitidum</i>	Shiny "Pea mussel"	Live	Live	
<i>Dreissena polymorpha</i>	Zebra mussel		Live	

The fauna found was diverse, but numbers of animals were generally low, especially species which are associated with aquatic vegetation, rather than bottom sediments. Each pit examined had species not found in the other two. A

sample (c.0.5kg) of sand and gravel from a vegetation free bottom at the edge of Stoneacres (in course of examination) had large numbers of *Potamopyrgus antipodarum* and pea mussels (*Pisidium* spp).

Willow Lake, which has more trees surrounding it, has more rotting vegetation on the bottom than Stoneacres. It was the only pit where zebra mussels (*Dreissena polymorpha*) were found; they were present in large numbers on

submerged wood, stones and other objects; it was also the only pit to produce Swan mussels (*Anodonta cygnea*) on this occasion.

Christchurch Lake had had barley straw dumped in it to suppress weed growth, and was also receiving water from an adjacent pit which was being landscaped, so the water level was raised. We did not record any bottom-dwelling molluscs from this site. Most of the snails recorded here were among weed or semi-

submerged thistles and reed mace. Eighteen species of land molluscs were found (details in table below). Because we concentrated on the aquatic fauna the search for land molluscs was limited. There were no extensive areas of fen, but there was a narrow wet fringe to the lakes and here some species typical of such habitats were found: *Carychium minimum*, *Oxyloma pfeifferi*, *Vallonia pulchella*, *Zonitoides nitidus*, and *Deroceras laeve*, mostly on decaying *Juncus* stems, but *Z. nitidus* was also on

rotting drifted vegetation at the edge of Stoneacres. Two species characteristic of short lime-rich turf were associated with short mossy vegetation containing wild basil (*Clinopodium vulgare*) at the edge of Christchurch Lake - *Pupilla muscorum*, and *Vallonia excentrica*.

With many thanks to Alison Hopewell for organising this interesting visit and for the permission given by the landowners and angling clubs.

Species	Vernacular	Stoneacres	Willow	Christchurch
<i>Carychium minimum</i>	Herald snail	Live		
<i>Carychium tridentatum</i>	Slender herald snail		Shell	
<i>Oxyloma pfeifferi</i>	Pfeiffer's amber snail		Live	
<i>Cochlicopa lubrica</i>	Slippery moss snail	Live		Live
<i>Pupilla muscorum</i>	Moss chrysalis snail			Live
<i>Vallonia pulchella</i>	Smooth grass snail		Live	
<i>Vallonia excentrica</i>	Excentric grass snail			Shell
<i>Arion intermedius</i>	Hedgehog slug	Live		Live
<i>Nesovitrea hammonis</i>	Rayed glass snail	Live	Shell	
<i>Oxychilus cellarius</i>	Cellar snail	Live		
<i>Zonitoides nitidus</i>	Shiny glass snail	Live		
<i>Deroceras laeve</i>	Marsh slug	Live		
<i>Deroceras reticulatum</i>	Field slug	Live		
<i>Monacha cantiana</i>	Kentish snail	Shells		
<i>Trichia striolata</i>	Strawberry snail	Live		
<i>Trichia hispida</i>	Hairy Snail	Shells	Live	
<i>Cepaea hortensis</i>	White-lipped snail	Live		
<i>Cepaea nemoralis</i>	Brown-lipped snail		Live	

Fanshells near Plymouth

This article was posted on the following website: http://www.bbc.co.uk/devon/outdoors/nature/2004/giant_shells.html

A giant fanshell: the Plymouth discovery has surprised scientists. A local diver has stumbled across a cluster of rare fanshells living off the coast of Plymouth. They are the first live specimens to be recorded anywhere in the UK for at least two years.

A survey expedition has been mounted by conservationists to confirm the numbers of an extremely rare fanshell discovered in Plymouth Sound. The live specimens recently spotted by a local diver off West Hoe are the first to be found in the whole of the UK since 2002. Although they can grow to the size of dinner-plates (up to 48cm long), these mussels have become so rare they have eluded scientists for many years. The recent discovery of up to 20 live animals in the shallow waters of Plymouth Sound has surprised marine scientists. In the past Fanshells (*Atrina fragilis*) were far more common, but are known to be susceptible to damage by fishing trawlers. As an indication of their rarity, none were found during professional marine life surveys at nearly 9,000 sites around Britain between 1987 and 1998. "These are the first live specimens to be recorded for at least two years," said Dr. Jean-Luc Solandt, Marine Conservation Society biodiversity policy officer. "The find in Plymouth is unique because they are very close to the shore. They were found in a busy shipping channel just off West Hoe and its possible this may have helped protect them from anchors and fishing nets." The expedition is part of a national survey by the MCS, English Nature, the Marine Life Information Network and Seasearch. The MCS aims to involve divers and fishermen in recording where, when and how many fanshells they see. Other than the recent Plymouth find, only two live specimens have been reported - both from a remote corner of north-western

Scotland. "Our fanshell survey is vital to make people aware of, and record this extraordinarily rare marine animal", said Dr. Solandt. "We rely on the general public, particularly divers and fishermen to record their sightings of fanshells, and report them to MCS. "We are asking fishermen who find any live to place them in a bucket of seawater, and contact MCS as soon as possible." The fanshells have been found in a busy shipping lane. Seasearch, a national programme designed to involve recreational divers in recording marine life for nature conservation, has also been recording fanshells north and south of the border. Two dedicated Seasearch trips involving over 50 dives failed to find a single fanshell in locations where animals were previously sighted. Chris Wood, national Seasearch co-ordinator says of the Plymouth find: "Seasearch divers have been following up possible sightings of these rare shells for nearly two years. "So far expeditions to sites on the west coast of Scotland and South Wales have failed to find any living specimens. "This means that those in Plymouth Sound are the only living fanshells in their natural habitat outside Scotland that we can be certain exist, so it does make them very special." The identification of these beautiful creatures was made possible by a marine life identification guide produced by the MarLIN programme at the Marine Biological Association in Plymouth. The MCS fanshell leaflet includes full colour photos and a recording form so observers can report sightings. "Recreational divers often spot rare and unusual marine life, said programme director, Dr Keith Hiscock. "They can help scientists by joining a range of recording initiatives." Free copies of the leaflet can be obtained from the Marine Conservation Society by calling 01989 566017.

Mary Seddon

Update on *Malacolimax tenellus* project Liz Biles

The records we have received are all very useful, with some probable records awaiting confirmation before being entered on the database, so please keep them coming. By the time this goes to print the Russula season will be under way and, although *M tenellus* is associated with plenty of other habitats - under bark, under logs and in leaf litter, it does mean that the mycologists who have been persuaded to take part in this project should swell the number of slughunters and, hopefully, records.

Talking of looking under logs reminds me of a record sent from the Devil's Punch Bowl during November last year. One specimen was found when a log was rolled, but damaged and it subsequently died. However, a return to the same site, same log, a couple of weeks later produced another specimen and a week

later another three specimens were found - same site, same log! Persistent slug or persistent slughunter? The log was in the bottom of a gully on well-rotted leafmould in an area of oak, birch, holly and Scots pine on what appeared to be very acid soil.

The Field Meeting weekend of 22nd/23rd October is to be a collaborative event with local fungus and natural history groups. Details for the FM on Saturday 22nd October at Angling Spring Wood remained as advertised whilst for Sunday 23rd October will be confirmed nearer the time when the local fungus groups have decided on the most suitable site. Do please contact the Leader if planning to attend either or both of these Field Meetings.

Exotic species

For all of you who go on collecting holidays in the Mediterranean, you may wish to look out for, and send records in for "exotic Molluscs"...

CIESM Atlas of Exotic Species in the Mediterranean - Vol. 3. Molluscs by Argyro Zenetos, Serge Gofas, Giovanni Russo and Jose Templado (376 pages with original color illustrations).

The data base of Exotic Molluscs in the Mediterranean Sea was developed by a CIESM task force of four biologists: Drs Argyro Zenetos (Natl. Center for Marine Research, Athens), Serge Gofas (Univ.

Malaga), Giovanni Russo (Univ. di Napoli), Jose Templado (Museo Natl. de Ciencias Naturales, Madrid), with the assistance of the CIESM Editorial Panel. The website interface and design was created by the CIESM Secretariat.

You are invited to consult, and comment on, our overall list of Exotic Molluscs species in the Mediterranean which includes both 'established' species (presumed established on the basis of at least two distinct records) and 'alien' species (considered non-established, on the basis of one or two published records, often of single records). The list is arranged by family name in the customary sequence, and will provide direct access to the exotic species sheets. It is followed by an annotated list of species long considered "exotic" in the

literature but now excluded by the task force for various reasons (misidentifications, indigenous species wrongly qualified as exotic, spurious records, very old records and cryptogenic species...).

Your feedback to the authors, in the form of suggestions, comments, eventual corrections, or new species propositions, will be most welcome and will help make the CIESM Atlas a constantly improving tool. Please follow the model developed in the sample sheets to suggest new species additions. Thank you.

<http://www.ciesm.org/atlas/>

Dr Mary B. Seddon

An Elusive Slug

Testacella maugei

David Long

On 7 April 2005 Juliet Bailey, an active member of the Gloucestershire Naturalists' Society and the Gloucestershire Wildlife Trust found and photographed a slug in her farm garden at Standish, SO 80-09- which I was able later to examine. It turned out to be *Testacella maugei*, last noted in Conchological Society records in Gloucestershire in 1916, at St Paul's Road Gloucester and in Watsonian vice-county 33 (information from Geraldine Holyoak). Amplification of the 1916 record comes from Charles Upton: "I have found it fairly abundant in the garden of nr 26 St Paul's Road, Gloucester. This is in Gloucester East," ("Additional Notes on the Land and Fresh-water Mollusca of Gloucestershire" *Proceedings of the Cotteswold Naturalists' Field Club* 19(3) 1917:229-232).

In the hope that readers will turn it up elsewhere not just in Gloucestershire, here is Juliet's account of the find.

"The slug was found in a vegetable garden run on organic principles. It was under an old carpet that was being used as a light excluding mulch to kill off a vigorous cover of weeds. The carpet had been in place for about six months over the winter and was lifted to prepare the ground for potatoes.

The site is in a hamlet about 10 km from Gloucester beside a busy B-road. There is evidence that the site has been in regular use since about 1750. There are abundant sherds of pottery dating from this period, as well as clay pipe fragments, continuing through until the early 20th century (when rubbish collection may have started). (Thanks to Dr Alan Vince for examining the pottery.) It is about 50 metres west of a farmhouse and dairy that was the centre of a substantial cheese making enterprise. Early maps of the site dating from 1811 and the 1830s show not only the farmhouse but a pair of labourers' cottages 20 metres to the west. Its use in the 20th century is not so

clear, though it is the obvious place to site a vegetable garden associated with the farmhouse. Locals say that some 20 years ago it was a productive garden, though little worked in recent years until the present owner arrived in 2001. One can envisage the garden having been used for vegetables throughout most of the 19th and 20th centuries, regularly disturbed and fertilized with domestic waste, and possibly also cattle manure."

The only recent *Testacella* record I am aware of from anywhere near here is *Testacella scutulum* found by David Scott-Langley at Combe, Oxfordshire SP 412153, 30 November 2001.

So congratulations to Juliet.

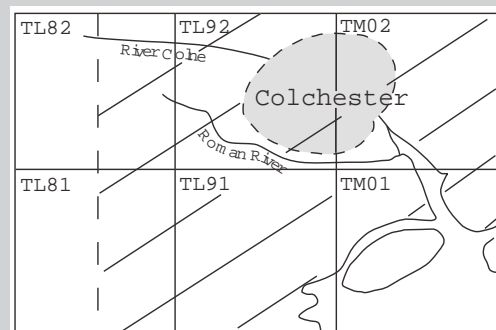


Freshwater molluscs found in a pond survey near Colchester

Peter and Pam Wilson

Introduction

During the past four years we have surveyed 93 ponds in the Colchester area for invertebrates. All the ponds have been on public access land e.g. woods, country park, heaths, nature reserves, an allotment site, village centres and village greens, beside rivers and along streams. This account summarises



information on the 32 species of molluscs found in the six 10 km squares covered by the survey, shown in the diagram (left).

Only ponds in the eastern half of TL82 and TL81 were looked at. Although some of the ponds in TM02, TM01 and TL91 were within 100m of the high tide mark on the coast, brackish water bodies were not included in this study.

Method

Plants in and around the pond were noted. The open water, the surface layers of silt on the bottom, and areas amongst emergent, floating and submerged plants (if present) of the survey sites were investigated with a hand net. In addition, stems of emergent plants, leaves of floating plants, the undersides of stones, pieces of wood etc were searched by hand in order to find species that may have missed by the net. Sampling was carried out from accessible points around the margin of the ponds. Samples were carefully sorted in white plastic trays at the site. Species that were not immediately recognisable were brought home for further examination; everything else was returned to the ponds. Each pond was surveyed twice during a summer season.

Results

The results of the survey are shown in the table opposite.

Observations and Comments

The table shows that the most widespread molluscs were *Lymnaea peregra* and *Potamopyrgus antipodarum* which occurred

Table showing the freshwater molluscs and the number of ponds in each 10 km square where they are found, in a survey near Colchester.

10 K grid square:	TL 82	TL 81	TL 92	TL 91	TM 02	TM 01	Present in total no. of ponds
<i>Valvata cristata</i>			1				1
<i>Valvata piscinalis</i>	1						1
<i>Potamopyrgus antipodarum</i>	2	1	2	2	6	3	16
<i>Bithynia tentaculata</i>	1				2	1	4
<i>Bithynia leachii</i>			1				1
<i>Aplexa hypnorum</i>	1						1
<i>Physella acuta</i>		1	5	1	5	1	13
<i>Lymnaea truncatula</i>	1				2	4	7
<i>Lymnaea palustris</i>			4		4		8
<i>Lymnaea stagnalis</i>	2	1	7		2	3	15
<i>Lymnaea auricularia</i>	1						1
<i>Lymnaea peregra</i>	3	3	12	2	4	8	32
<i>Planorbis carinatus</i>	1		4		1		6
<i>Anisus leucostoma</i>	1		7			2	10
<i>Anisus vortex</i>	1		1			1	3
<i>Bathyomphalus contortus</i>			1		3	1	5
<i>Gyraulus laevis</i>						4	4
<i>Gyraulus albus</i>	1		3		6	4	14
<i>Gyraulus crista</i>	2		10	2	3	9	26
<i>Hippeutis complanatus</i>		1	5	1	2	2	11
<i>Planorbarius corneus</i>			2		2		4
<i>Ferrissia wautieri</i>		1	3	1	2	3	10
<i>Acroloxus lacustris</i>			2		3		5
<i>Anodonta cygnea</i>					1		1
<i>Sphaerium cornium</i>			4	1	2		7
<i>Musculium lacustre</i>			5		6	5	16
<i>Pisidium casertanum</i>			5		3	1	9
<i>Pisidium personatum</i>			7	1	3	2	13
<i>Pisidium milium</i>	1		4	1	2	1	9
<i>Pisidium subtruncatum</i>	1			1	2	2	6
<i>Pisidium nitidum</i>	1			1	3	2	7
<i>Pisidium obtusale</i>		1	8			1	10

in all of the six 10 km squares of the survey area near Colchester. Also *Lymnaea peregra* was the most frequently found mollusc in the area – in 32 of the 93 ponds surveyed, followed by the diminutive *Gyraulus crista* in 26 ponds. Least common were *Valvata cristata*, *Valvata piscinalis*, *Bithynia leachii*, *Aplexa hypnorum*, *Lymnaea auricularia* and *Anodonta cygnea* each in one pond only.

On the western side of the area there are a number of ancient woodlands in which 27 ponds were surveyed. 17 of these ponds held no aquatic molluscs. Many of the woodland ponds, which were surrounded by tall coppice growth, were in heavy shade from May to October. Where coppicing had been recently carried out and sunlight was accessible, pond plants were plentiful but still no molluscs were recorded. These woods were mostly on acid soils but two had areas of boulder clay where some ponds held small numbers of *Anisus leucostoma*.

A stream flowing in and out of a pond, or a nearby river in flood, helps to explain the presence of the following species

which are typical of moving water: *Valvata piscinalis*, *Bithynia tentaculata*, *Anisus vortex*, and *Lymnaea auricularia*. *Bithynia leachii* in one pond could have been introduced accidentally.

A single specimen of *Aplexa hypnorum* in a swampy area close to the river Colne was a first record for this species in the area for at least 40 years (Kerny 1999). Perhaps it would have been found to be more numerous if we had surveyed in late winter or spring as this pond snail is apparently 'a rather seasonal animal in this country' (Killeen 1992).

At an old gravel pit site containing many temporary ponds (which may dry out in summer), *Lymnaea truncatula* frequently turned up and was once seen in huge numbers on the leaves of grasses, at the edge of the pond just above water level, after heavy rain 'filled up' the pond the previous day.

Gyraulus laevis was found in two pairs of adjacent ponds about 4 km apart in TM01. In one pair it was living with a close relative *Gyraulus albus*.

The introduced *Ferrissia wautieri*, which was found in five 10 km squares and in ten ponds altogether, appears to be widespread in the area. At one heathland pond it was the only mollusc recorded.

Musculium lacustre was frequent in the north east of the survey area but absent from the many woods in the west. It tended to occur in ponds with anaerobic regions where there was a build up of dead plant material and organic sediment, where ducks and geese congregated, and in ponds containing fish larger than sticklebacks.

Pisidium obtusale was numerous in some of the well-established ponds in TL92. Strangely it was also found as a singleton in one pond in TL81 and TM01. At one site it was common amongst submerged stems of New Zealand Pygmy weed but it was not found with other plants

The largest pond in the survey, which covered approximately two acres, supported 18 species of mollusc. This pond had a stream flowing in and out and also a good variety of pond plants including a thin blanket of the stonewort *Nitella opaca* in summer. Large dead specimens of *Anodonta cygnea* were discovered in the shallow margins of this pond during winter conservation work, following a spell of freezing weather.

One well established pond, about 20 metres across with a good variety of plants, surprisingly held only one mollusc species – *Planorbis carinatus* – along with one flatworm, 2 crustaceans, 9 aquatic bugs, 21 water beetles, 2 species of newts and a grass snake!

After many site visits we now understand that it is unwise to dismiss ordinary looking ponds as uninteresting and also not to be too optimistic when approaching a very promising looking site! Trying to explain the distribution of molluscs (and other organisms) is not easy.

Acknowledgements

We are grateful to Geraldine Holyoak for checking the identification of some of the molluscs including the *Pisidium*.

We are also grateful to the landowners and land managers who gave permission for us to survey their ponds.

References

- Kerney M P 1999 *Atlas of Land and Freshwater Molluscs of Britain and Ireland*. Harley Books, Colchester.
Killeen I J 1992 *The Land and Freshwater Molluscs of Suffolk*. Suffolk Naturalist's Society, Ipswich.

Molluscs in Trinidad and Tobago

Mike Rutherford

Last year I was invited by a friend from my university days to join an expedition to Trinidad. Our main purpose was collecting tree frogs for investigation into toe-pad adhesion along with other behavioural studies. I was mainly employed as a driver, frog-catcher and responsible adult to help with the undergraduate students. In my spare time I endeavoured to do a bit of collecting for Glasgow Museums, where I am the curator of invertebrates.

The expedition ran from June to August and using a combination of annual leave along with some research leave I was able to go for five weeks. The team was based in The William Beebe Tropical Research Station, also known as Simla, which is located in the Arima valley in northern Trinidad. From the tropical rainforest around our accommodation we collected some of the frogs we needed, but we also went to sites all over Trinidad to get the species we were after.

From around Simla I collected a few

empty shells from the forest floor but also came across some living examples as well. Although the shells were quite dull the animals inside were often brightly coloured and I was quite happy to take only pictures and be content with my already dead specimens. As far as I can work out I found several Translucent *Cyclotus* - *Neocyclotus translucidus trinitensis* (Fig.1), a species of Annularid (Fig.2) and a species of *Drymaeus* (Fig.3). I have been unable to identify the last two specimens down to species level. Another interesting find, in some abandoned concrete ponds near to the house, were hundreds of *Marisa cornuarietis* (Fig.4). At first glance I thought they were Planorbids but the presence of an operculum made me look again. As well as the live ones in the pond there were many dead shells scattered around nearby possibly indicating that some animal was finding them to be a good source of food.

The capital of Trinidad is Port of Spain; a sprawling city situated in the north west

of the country. There is a fair sized zoo with a good representation of the islands vertebrate wildlife. The enclosures are of a mixed standard with some animals having large landscaped habitats but with others stuck in small old-fashioned cages. The only invertebrate I came across was a megasnail shell amongst a small collection of dead objects but unfortunately it had been mislabelled as a *Lamellaxis gracilis* (Fig.5).

One highlight of my trip was a boat tour of the Caroni Swamp, just south of Port of Spain. It is a world famous destination for bird watchers eager to see flocks of scarlet ibis but there are many other interesting plants and animals to be seen as well. Cook's tree boas coiled up in the trees and caimans lying on the mudflats were just some of the denizens of the huge mangrove swamp. On many of the thick mangrove roots there were Caribbean edible oysters (*Crassostrea rhizophorae*) although they were apparently getting harder to find as they are being over-harvested.

A couple of the best beaches on the island, as far as people are concerned, are La Paz and Las Cuevas along the northern coast. Some of the areas where we collected frogs were nearby so we often had time for swimming, sunbathing and also a bit of beachcombing.

La Paz beach is very long and sandy but there are rocks at the western end where I found several common West Indian chitons - *Chiton tuberculatus* (Fig.6). On rocks at the eastern end of Las Cuevas beach I found many specimens of chequered nerites - *Nerita tessellata* and wide-mouthed purpura - *Purpura patula* clinging on to exposed rocks at low tide. Although both are common shells throughout the region there was some value and interest in finding them. The nerite displays a large variety of patterning and the purpura is used as a source of purple dye much like *Murex brandaris* was used in Europe.

I was lucky enough to get a break from the hard work in Trinidad and have a weekend on Tobago which is a much more tourist-orientated island and more like the tropical paradise of the popular imagination.

As I was browsing through some of the stalls in Crown Point I saw a whole table covered in Queen conch shells - *Strombus gigas* (Fig.7). I soon got talking to the man who owned the stall and asked him where his specimens came from as I was working on a display at the museum about souvenirs that endanger wildlife. He told me that divers collect them and sell them on for a cheap price after eating the soft parts; he also said that the divers had to go deeper and search further a-field for specimens. Although foreign tourists buy many there is also a demand for conch shells amongst the locals. During cricket matches, the sound of hundreds of conch shell trumpets rings out, often frightening the visitors but inspiring the home team.

Whilst I was snorkelling in Pirate's Bay off Charlotteville I saw many amazing animals but the two that stood out for me most were, not surprisingly, molluscs. The first was a flamingo tongue shell - *Cyphoma gibbosum* (Fig.8) crawling across a sea fan, it stuck out like a sore thumb but I only saw one example. The

second was a small shoal of Caribbean reef squid - *Sepioteuthis sepioidea*, which came out of nowhere. They moved so gracefully and were so beautiful that I almost forgot to go up and breathe again and I was very reluctant to finally leave the water after having watched them for almost quarter of an hour.

On a walk to Argyll waterfalls in Tobago I found a *Megalobulimus oblonga* albus or the white form of the oblong megasnail, it had been half buried in the earth and didn't fancy coming out of its shell. Fortunately when I got back to Simla I found another *M. oblonga* (Fig.9) crawling along through the forest, I was amazed by the fringe around the mouth



Fig.5



Fig.7

and watched it crawl around a table in the lab for quite a long time.

The highest numbers of shells were found on my last day in Trinidad when we visited Tamana Caves. The caves are situated in a limestone outcrop in the middle of the island; the ground above is covered in a mix of secondary forest largely consisting of cocoa and citrus trees and remnants of primary rainforest. As we walked up the hill to the cave openings there were many empty shells scattered all over the ground, I collected maybe a dozen or so and later found out they were squirrel ear auris - *Eudolichotis aurissciuri*. The caves themselves were only accessible from one entrance that

took you into a cavern filled with thousands of bats flying over your head and thousands of cockroaches at your feet. The smell was quite pungent to say the least but it was an amazing experience. A word of advice for any future visitors is wear a wide brimmed hat and don't look up with your mouth open, the almost constant rain of urine and droppings from the bats is considerable.

There were also a few shells that I didn't know I had until I returned home. I had collected an oropendola's nest whilst on our way to Tamana caves. It had fallen from a tree and been lying on the ground for at least a few weeks, I bagged it up

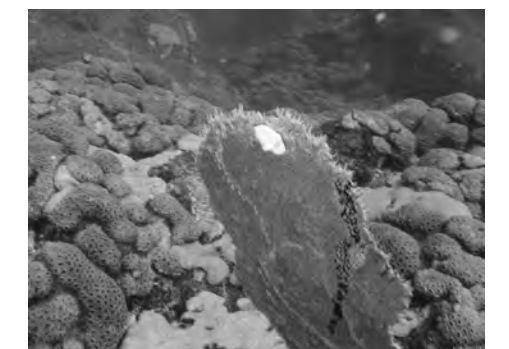


Fig.8

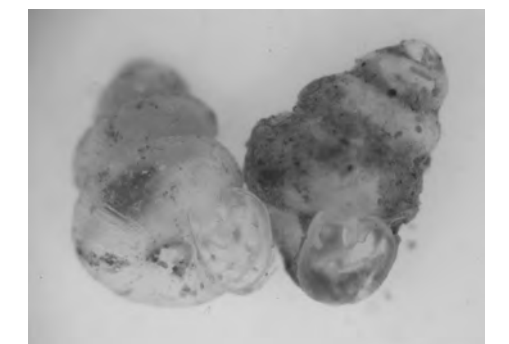


Fig.10

and didn't look at it again until I was back in Glasgow. Out of curiosity I had a look through the debris that had fallen to the bottom of the bag and was pleasantly surprised to find a whole host of invertebrates. As well as several species of mites and ants I found eight tiny shells. Some were broken or immature but there were two that I felt were worthy of further investigation. As far as I have been able to ascertain they are from the *Gastrocopta* genus (Fig.10) but I have been unable to identify them to species level. It may be a new species and I will be carrying out further investigation hopefully leading to an article for the Journal of Conchology.



Ron Boyce

1



Juliet Bailey

2



3



4



Fig.1

9



5



6

These images relate to specific articles within the magazine.

1. Bedstraw broomrape at Sandwich Bay on 5 June 2004. Page 3

2. *Testacella maugei*. Page 8

Figures 3 - 8. Pond survey. Page 8. Photos Peter and Pam Wilson

3. New Zealand Pygmyweed spreading on the bank of the pond and in the water. Site of *Pisidium obtusale*. (See text)

4. Shaded pond in coppice woodland. No freshwater molluscs found here.

5. Pond full of pond plants where *Pisidium obtusale* was numerous.

6. Swampy pond near River Colne. Site of *Aplexa hypnorum*

7. Pam beside a well-established pond.

8. Shaded pond with Lesser Pond Sedge in late April. Dried up by July. No freshwater molluscs found here.

9-14. Molluscs in Trinidad and Tobago. Page 10. Photos Mike Rutherford

15. *Phenacolimax major* Page 16

16. Snail *Cochlodina laminata* with unpigmented shell. Page 16

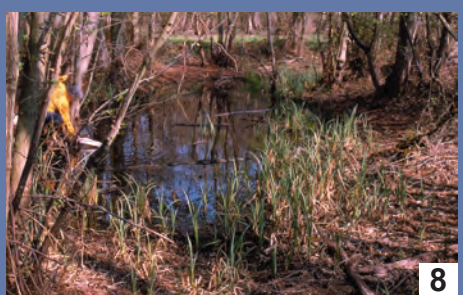
17. *Mytilus* pearls. Page 14

18. Holed *Buccinum* Apertural. Page 15

19. Holed *Buccinum* Dorsal. Page 15



7



8



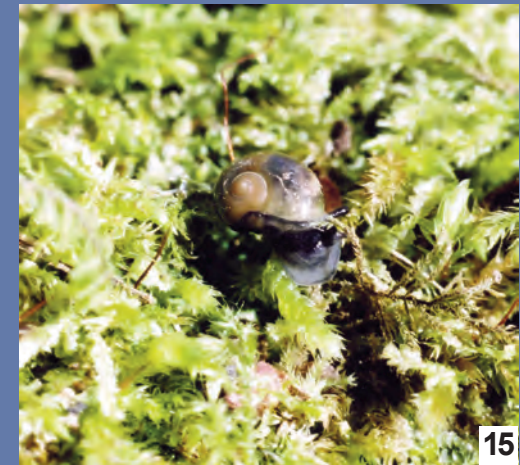
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Fig.2



11

Fig.9



15

David Long



12

Fig.3



13

Fig.4



16

David Long



14

Fig.6



17

Jan Light



18

Jan Light



19

Jan Light

Stella Turk writes from Cornwall:

It is difficult to categorise people. Should one even try? We are all multiple in a singular way! Arthur Ellis was a classical scholar as well as a trained biologist and it follows that he was a stickler for exactitude; but his dry sense of humour enabled him to chide any his students in a delightful way so that they were actually encouraged. This and his fairness is demonstrated in the accompanying item. He was a teacher for all his working life, and when, in 1948, he became both non-marine Recorder for the Conchological Society and Editor of its Journal, he took on a host of new 'students' of various ages and aptitudes of which I was one of many. As might have been expected, he wrote his own obituary in which he gives a broad outline of his life and very lengthy bibliography, (*J. Conch.* 31 1983).

Yet there was so much more. He was a prodigious correspondent and always answered the smallest query both fully and promptly. All his letters are treasurable containing a richness of news and views.

One of his hobbies was compiling verses on conchology, all carefully indexed. We exchanged these over many years, and my husband contributed a few Japanese Haiku poems. I had a complete collection, but I sent the large file to Terry Crowley, hoping that he might be more likely to achieve their publication than myself. Hopefully it will have found its way into an archive, as will the correspondence massed over two decades.

Arthur's correspondents will recall his fondness for a Script font which he used when, later in life, he came to type up many of his early writings on an IBM Golfball Electric Typewriter.

FROM A CONCHOLOGIST'S LETTERS

Epsom, 6 July 1939. Yesterday I went to the Hog's Back near Guildford to look for a rare fumitory (*Fumaria vaillantii*)*. This is my favourite genus of plants, and I have now collected all but two of the British species. I am not likely to complete the list as one species (*F. occidentalis*), the handsomest of the lot, is confined to a few localities in Cornwall. I then went to Cut Mill ponds near Godalming and collected the largest specimens of swan mussels (*Anodonta cygnea* (sic)) I have ever found, also the painter's mussel (*Unio pictorum*). On Tuesday I took a pupil, Parks**, to the canal near Bisley and to a lake near Farnborough, and had quite good sport with the molluscs. Parks is very keen on freshwater life and is one of several who are making collections for the Smith Pearse natural history prizes. It is going to be difficult to judge this year, as four boys are competing for three prizes and they are all pretty good in their several lines. One is doing insect pollination, making a collection of flowers with all the insects visiting each species. He is the boy, Clark***, who got a postmastership at Merton last term. Another is doing freshwater life, with the ecology of chalk downs as a sideline, a third is collecting grasses and sedges, and then there is Hackett with his land and freshwater Mollusca. I shall ask my biological colleagues to adjudicate, as my bias is in favour of the snail expert, and I don't want the boys to think, if he gets a prize, that it is because I am more interested in that group. One important thing is that they get a great deal of pleasure from the interest and fieldwork, apart from any prizes.....

* *F. vaillantii*, as well as *F. parviflora*, *F. officinalis* & *F. densiflora*, and a hybrid between the last two, was found later in the grounds of Epsom College.

** now Sir Alan Parks

*** Edgar James Clark, a brilliant entomologist, specialising in grasshoppers, died at Oxford in 1944.

..... The problem of the prizes was solved by the unfortunate expulsion of Hackett.

Pearls of Wisdom Jan Light

Currently running at the Smithsonian Institution Museum of Natural History, **The Allure of Pearls** is an Exhibition which will close on September 5th 2005. Some of the most fabulous and famous pearls in the world are on display including the **Hope Pearl**, the **Pearl of Kuwait**, the **Pearl of Asia**, **Black Beauty** and **La Peregrina** perhaps the most celebrated and historical pearl in the world. King Philip II of Spain gave it to Queen Mary I (Mary Tudor) and it has been owned by Spanish royalty, the Bonapartes of France and the British Marquis of Abercorn. In 1969 the actor Richard Burton gave this pear-shaped natural pearl to his wife, Elizabeth Taylor

who had Cartier reset it with pearls, diamonds and rubies. Apart from oysters a number of other mollusc groups produce pearls including snails, conchs, abalones, clams and freshwater and marine mussels.

Not all pearls are desirable and those formed in edible molluscs such as marine mussels can be considered a nuisance as they are seldom appealing and have been the cause of many a cracked tooth. Species of the genus *Mytilus* are prone to develop large numbers of minute pearls in response to parasitism by a trematode that inhabits the intestine of certain duck species such as Eider and Scoter Duck. On shores where these ducks feed high incidences of pearl infestation render the mussels unsuitable for harvesting. The mussels act as an intermediate host for the trematode, and pearl formation is a reaction to the presence

of immature stages of the trematode and their faeces in the tissues of the mussel. The mussel separates these foreign bodies and surrounds them with aragonitic shelly layers. Large mussel individuals may contain more than 100 pearls.

Pearls: A Natural History, 2001. Landman, N.H., Mikkelsen, P.M., Bieler, R. & Bronson, B. Harry N Abrams Inc., New York, documents the human obsession with pearls.

Legends (see page 13. Figure 17)

Mytilus and Pearls
Shell of *Mytilus edulis* with a blister pearl *in situ*, and a scatter of pearls obtained from a sample of mussels collected in the Firth of Clyde as part of a study into *Mytilus* pearl formation. Scale 1cm.

A Mystery Object from the Bronze Age

At archaeological sites, concentrations of marine mollusc shells, which are known to be edible species, can often be interpreted with little ambiguity as food refuse. It is a recurring feature that such concentrations may also contain other shells whose condition, even allowing for the degradational processes which may have affected the deposit, suggests that they were brought to the site in worn condition, or they may have been subjected to man-made modification after collection. Analysis of shell middens from sites along the north Cornish coast, and comparison with the species present in the modern day environment there, shows that the 6 taxa (3 genera) which dominate the middens (*Patella* spp., *Mytilus* spp. and *Nucella lapillus*) also dominate the mollusc populations living on the shore, and worn, sometimes holed, *Glycymeris* and *Acanthocardia* valves which are present in the archaeological assemblages, are common features of the dead shell assemblages which litter the present-day beaches.

Even more extraordinary shells sometimes turn up during excavation and the figured shell of *Buccinum undatum* is no exception. The shell was excavated at **Gwithian Sands** by Charles Thomas and his team in the 1950s, and is dated to the **Bronze Age**, having been retrieved from a well-constrained

context at some 6ft in depth. There are 8 holes arranged around the shell and although some of them have rather crude outlines, there can be little doubt that this is a worked shell bearing evidence of the hand of man (or woman!). But what can the purpose of this artefact be? One or two ideas have been proposed but it would be interesting to see what suggestions readers of *Mollusc World* can produce. Please send your suggestions to Jan Light who will collate all responses and communicate them in a future issue of the magazine. (John Llewellyn Jones who is an expert at blowing shell trumpets, and a professional wind musician have both tried to get a note out of this shell, with no success!) A prize will be offered for the most 'enlightened' suggestion.

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Legends (see page 13. Figures 18 & 19)

Holed *Buccinum*

Dorsal and apertural views of the shell of *Buccinum undatum* retrieved from a Bronze Age site at Gwithian Sands, Cornwall. The holes number eight. Scale 1cm.

BOOK AUCTION

A few books from the sale list of the Jennifer Crowley library are still available and enquiries are invited regarding these. Twelve items were kept back at the outset to form the basis of a small auction which will take place at the **Indoor Meeting at the Natural History Museum on Saturday 10th December 2005**. The auction is open to all fully paid up individual and Institutional members and all proceeds from this auction will go to Society funds. A list with brief details of these books is given below. Further details can be obtained from Jan Light (01483 417782).

Bids by non-attendees: The Society regrets that it is unable to accept postal bids. Members unable to attend but wishing to bid for items may nominate a Council or other attending member to bid on their behalf. Members requiring assistance should contact the Hon. Secretary, Rosemary Hill, 447B Wokingham Road, Earley, Reading, Berks, RG6 7EL, tel. 01189665160, email rosemaryhi@lineone.net

Payment for items purchased will be effective immediately, by cash or cheque only at the end of the auction.

- 1. Abbott, R.T. (ed.) 1959-76. Indo-Pacific Mollusca.** 3 vols in binders. 17 parts appears to be complete. Good.
- 2. Abbott, R.T. (ed.) 1978-85. Monographs of Marine Mollusca.** Parts 1,2,3 only with binder. Good.
- 3. Binney, W.G. & Bland, T. 1869. Land and Fresh Water Shells of North America.** Part 1. Pulmonata Geophila. Smithsonian Miscellaneous Collections 194. Smithsonian Institution, Washington. Fair, damage to spine, some foxing.
- 4. Chenu, J.C. 1859. Manuel de Conchyliologie et de paleontologie conchyliologique.** 2 vols. Librairie Victor Masson, Paris. Fair, vol. 1 has loose binding. Inscribed F W Townsend.

5. Cuvier, B. 1837. The Animal Kingdom arranged according to its organization. Vol 3. Mollusca, Annelides, Crustacea, Arachnide. G. Henderson, London. Contents fair/good, loose binding.

6. Jeffreys, J.G. 1862-69 British Conchology. 5 vols. Vol. 5 has colour plates in good condition. B/W plates foxed. Includes signed letter from JG Jeffreys.

7. Mawe, J. 1823. The Linnaean System of Conchology describing the Orders, Genera and Species of shells. Longman, Hurst, Rees, Orme & Brown, London. Fair, loose binding. 37 handcoloured plates.

8. Reeve, L. 1863. The Land and Freshwater Molluscs indigenous to, or naturalized in the British Isles. Reeve & Co., London. Spine detached, binding slightly loose. Good.

9. Reeve, L. 1865. Monograph of the Genus Cerithium, Conchologica Iconica. L. Reeve & Co., London. Original paper cover, modern binding, VG condition. 20 handcoloured plates.

10. Searle, R. 1969. Tiens! Il n'y a personne? Jean Jacques Pauvert, Editions, Paris. With DJ. Collection of cartoons based on snail themes.

11. Sowerby, G.B. 1854. Popular British Conchology: a familiar history of the molluscs inhabiting the British Isles. Lovell Reeve, London. Fair/good.

12. Sowerby, G.B. 1859. Illustrated Index of British Shells. Simpkin, Marshall & Co., London. Good, 24 clean handcoloured plates.

Disclaimer: The foregoing information is offered in good faith, and whilst we have made every effort to describe accurately the items offered for sale, prospective purchasers should satisfy themselves as to the condition and completeness of books for which they intend to bid. The Society disclaims responsibility for any inaccuracies.

Field meeting weekend in South Wales

12-13 March 2005

David Long

This meeting aimed to check for the semi-slug *Phenacolimax major* in the western part of its recorded range, as part of the Conchological Society's survey throughout England and Wales (see *Mollusc World* Issue 3 page 3 and picture on page 13). Five of us met at Talgarth - John Evans, John Harper, David Porter, Tony Smith and I, and we then went to Pwll-y-Wrach Nature Reserve (visited by kind permission of the Brecknock Wildlife Trust), where Rosemary Hill and Ron Boyce joined us.

Pwll-y-Wrach, (SO/165326), is a mixed deciduous woodland in a narrow valley in Old Red Sandstone, cut by the river Erig on the south west side of the Black Mountains. The higher slopes are dominated by Oak but nearer the river, where it is more base-rich with pockets of re-deposited lime, there is more variety including Ash. Opposite-leaved Golden Saxifrage, *Chrysosplenium oppositifolium*, was noted near the stream. *P major* had been found here during a Society field meeting in 1994 (information from Ron Boyce), so it was with some relief that two live animals were found, one in Oak litter about 20m above the river and the other in moss over soil. Other molluscs were varied, if not in large numbers - the table below lists them and earlier records. Possible old woodland indicators, besides *P major* were

Perforatella subrufescens, *Azeca goodalli*, which can turn up in more open sites, and *Helicigona lapicida*, also found on rocks and dry stone walls. We did not re-find *Leiostylia anglica* which John Harper had found near the stream in 2003, but it could well be still present.

Pwll-y-Wrach Molluscs
(previous records are from a Conchological Society Meeting 14.5.1994 (CS), and John Harper (JH) 2003-2004)

In the afternoon, by kind permission this time, of the Countryside Council for Wales (CCW) we visited Craig-y-Cilau National Nature reserve (SO/185165), a north facing escarpment with lower slopes in Old Red Sandstone and upper cliffs in Carboniferous Limestone. There is an area of boulder scree

Species Name	12 March 2005	Previous Records
Land Molluscs		
<i>Carychium minimum</i>	-	CS
<i>Carychium tridentatum</i>	live	CS JH
<i>Azeca goodalli</i>	live	CS JH
<i>Cochlicopa lubrica</i>	live	CS JH
<i>Columella edentula</i>	-	CS JH
<i>Columella aspera</i>	live	JH
<i>Leiostylia anglica</i>	-	JH
<i>Lauria cylindracea</i>	-	JH
<i>Ena obscura</i>	shell	JH
<i>Punctum pygmaeum</i>	live	
<i>Discus rotundatus</i>	live	CS
<i>Arion ater aggregate</i>	live	
<i>Arion ater</i>	-	JH
<i>Arion subfuscus</i>	live	CS
<i>Arion circumscriptus</i>	live	
<i>Arion fasciatus</i>	-	CS
<i>Arion distinctus</i>	live	JH
<i>Arion intermedius</i>	live	
<i>Arion silvaticus</i>	live	
<i>Vitrea pellucida</i>	-	JH
<i>Phenacolimax major</i>	live	CS
<i>Vitrea crystallina</i>	live	CS
[<i>Vitrea contracta</i>]	noted in field	
<i>Nesovitrea hammonis</i>	live	
<i>Aegopinella pura</i>	live	CS
<i>Aegopinella nitidula</i>	live	CS JH
<i>Oxychilus cellarius</i>	live	JH
<i>Oxychilus helveticus</i>	-	CS
<i>Oxychilus alliarius</i>	live	CS JH
<i>Limax cinereoniger</i>	-	CS
<i>Limax sp</i>	live juvenile	
<i>Boettgerilla pallens</i>	-	CS
<i>Milax budapestensis</i>	live	
<i>Deroceras laeve</i>	-	CS
<i>Deroceras reticulatum</i>	-	JH
<i>Euconulus fulvus</i>	live	JH
<i>Cochlodina laminata</i>	live	CS
<i>Clausilia bidentata</i>	live	JH
<i>Perforatella subrufescens</i>	live	JH
<i>Trichia hispida</i>	live	JH
<i>Arianta arbustorum</i>	live	JH
<i>Helicigona lapicida</i>	fresh shell	JH
<i>Cepaea nemoralis</i>	live	CS JH
<i>Cepaea hortensis</i>	-	CS
Freshwater Molluscs		
<i>Ancylus fluviatilis</i>	shell in river	
<i>Lymnaea truncatula</i>	shell in river	
<i>Pisidium casertanum</i>	live in river	

¹All *Vitrea* spp examined at home by John Evans were *V. crystallina*

below the cliffs, on which slightly open deciduous woodland has developed. We concentrated on recording in this area. No living *P major* was found but nor any reliably identifiable shell. Records held by the Countryside Council for Wales included, intriguingly, *Acicula fusca* and *Malacolimax tenellus*. It was much too early to search for the latter but we did find *Acicula fusca*, mainly the white form, in ground litter and moss from below boulders. One *Limax cinereoniger* was found under a large stone. Other species found are listed right.

Craig-y-Cilau Molluscs

Note: CCW records are given as from "Bray 1977, ILEA 1981, Lowe 1986, master from Fowles 1988"

The Taf Fechan Nature Reserve lies in the beautiful valley of the southwest flowing Taf Fechan river just south of the border of the Brecon Beacons National Park. Geologically it lies on the northern rim of the South Wales coalfield. It is a mixed habitat reserve with a river, grassland,

Species Name	13.3.2005	CCW records	Habitat (13.3.05)
Land Molluscs			
<i>Acicula fusca</i>	live	x	Scree wood, wood edge
<i>Carychium minimum</i>		x	
<i>Carychium tridentatum</i>	live	x	Scree wood
<i>Cochlicopa lubrica</i>	live	x	Scree wood, grass
<i>Cochlicopa lubricella</i>	live	x	Stones in grass, scree wood
<i>Pyramidula rupestris</i>	live	x	Wall at wood edge
<i>Lauria cylindracea</i>	live	x	Scree wood
<i>Ena obscura</i>		x	
<i>Discus rotundatus</i>	live	x	Grass, stone wall
<i>Arion ater agg</i>	live	x	Scree wood
<i>Arion ater</i>		x	
<i>Arion subfuscus</i>	live	x	Scree wood
<i>Arion circumscriptus</i>	live	x	Scree wood, stone wall
<i>Arion silvaticus</i>	live		Scree wood
<i>Arion hortensis agg</i>		x	
<i>Arion distinctus</i>	live	x	grass
<i>Arion intermedius</i>	live	x	-
<i>Vitrea pellucida</i>	shells	x	Scree wood
<i>Phenacolimax major</i>	? shell		Scree wood
<i>Vitrea crystallina</i>	live		Scree wood
<i>Vitrea contracta</i>	[live]	x	Grass, under stone
<i>Nesovitrea hammonis</i>	live	x	Mossy soil 3m from bog area
<i>Aegopinella pura</i>	live		Scree wood
<i>Aegopinella nitidula</i>	live	x	Grass, scree wood
<i>Oxychilus cellarius</i>	live	x	Scree wood
<i>Oxychilus alliarius</i>	live	x	Grass, stone wall
<i>Limax cinereoniger</i>	live		Under stone in scree wood
<i>Limax tenellus</i>		x	
<i>Limax marginatus</i>	live	x	
<i>Deroceras laeve</i>	live		Near base of slope
<i>Deroceras reticulatum</i>	live	x	Grass, scree wood
<i>Deroceras panormitanum</i>		x	Scree wood
<i>Euconulus alderi</i>		x	-
<i>Euconulus fulvus</i>	live		Scree wood
<i>Clausilia bidentata</i>	live	x	-
<i>Candidula intersecta</i>		x	
<i>Perforatella subrufescens</i>	live		Near start of wood
<i>Trichia hispida</i>	live	x	grass
<i>Helicigona lapicida</i>		x	
<i>Cepaea nemoralis</i>		x	
<i>Cepaea hortensis</i>	live		-
Freshwater Molluscs			
<i>Lymnaea truncatula</i>		x	
<i>Ancylus fluviatilis</i>		x	
<i>Pisidium sp</i>		x	



1



2



3



4



5



6



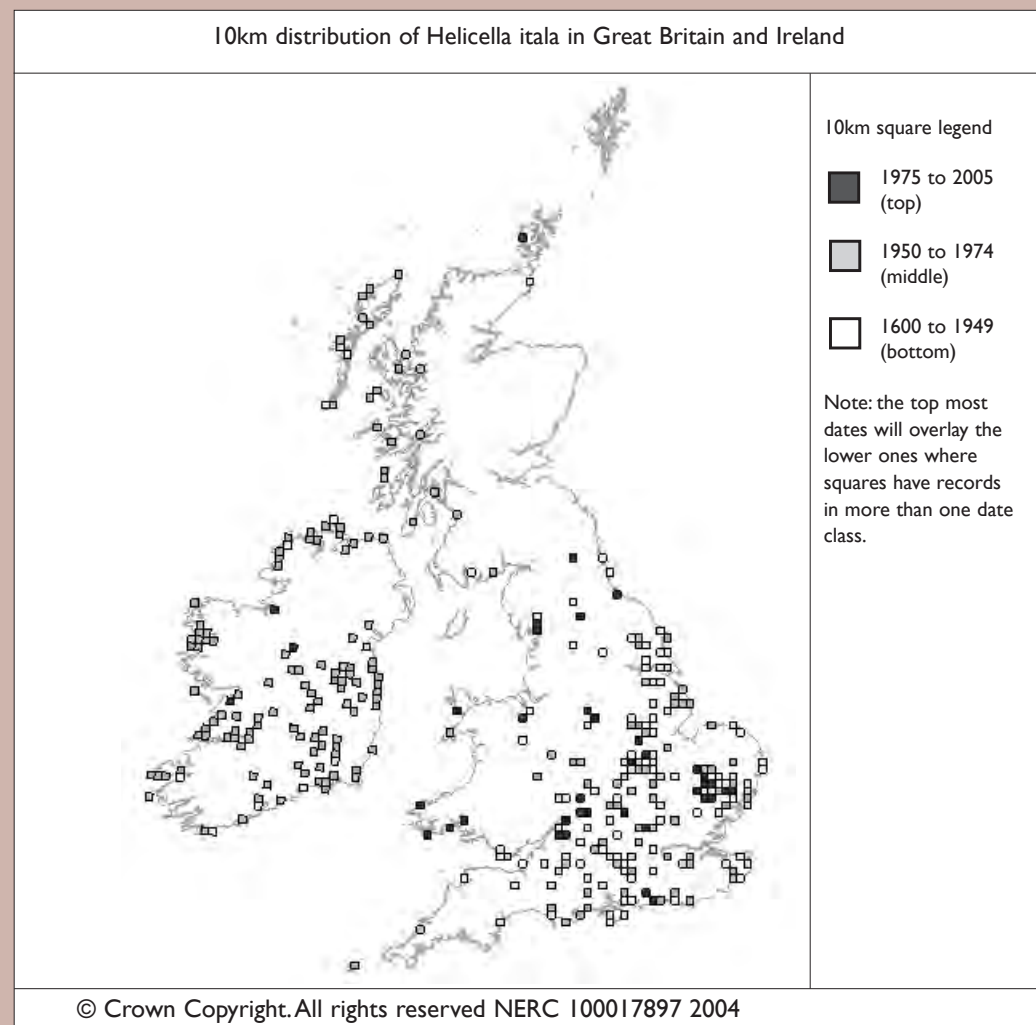
7



8

to plot the data at different resolutions (scales) or for a particular area. You can also look at how the recorded distribution appears to be changing through time by plotting different dates in different colours. Later in the year we hope to have developed the Society's own website to show the distribution maps along side accounts of the species and plan to give more information about this in the next issue of *Mollusc World*.

particularly from societies such as the Conchological Society. The Gateway developers are always looking for ideas as to how it could be improved. You can do this by clicking on the Feedback button at the top of the window on your computer screen to send any ideas, or to communicate any problems you are experiencing.



• Interacting with Records

If you want to look at the detail of the records behind the maps you can use the interactive map facility. For this the Society will need to have activated your access rights. This will then allow you to zoom in to a particular area of interest to you and, subject to the appropriate access rights that you have to the data, see exactly where the record was made. You can also select individual records and find out more about them. There are also facilities to allow you to overlay the map you have selected with the boundaries of protected sites (eg. Sites of Special Scientific Interest) or with the Land Cover Map 2000 (a habitat map for the UK). For datasets that you have sufficient access to you can also make comments on the validity of the records. This facility was used by the Spider Recording Scheme to validate their data ahead of the publication of their Distributional Atlas and we may use this option in a similar way for more detailed validation of the Society's data.

THE FUTURE

The NBN Gateway is still being developed but its success is dependent on its growth through data being made available on it,

only want to use the Conchological Society data or you may wish to search several datasets simultaneously.

3. See what has been recorded in a 10km square – from the Home Page select the 100km square from the map at the bottom of the page. Then pick the 10km square you are interested in. You will then see a list of the species groups that have been recorded in that square. Click on the "Mollusc" link to see a list of the molluscs that have been recorded.

Note: For the present time, all this can be done using the public level of access (in the case of Conchological Society data this applies to access at the level of 10km square). If you want to access the full records you will also need to register and apply for that level of access. Although the mechanisms for this have been set up on the Gateway Website, the Society has yet to set up a registration system. Once this is in place further information will be communicated to the Membership via the magazine and on the Society's Website.

So..... if you have access to the Internet why not visit the NBN Website and see what you think. Try and search for the currently recorded distribution of a particular species – it may be that you have records to add? An excellent use of the Gateway is to help you plan your next field trip. The inset provides some quick pointers to starting to use it.

Step by Step Guide to getting started on the Gateway

To look at the distribution of a species –

1. On the Main Page of the NBN Site type in part of the name of a species you are interested in and press "Search" (**Hint:** You can use a five letter abbreviation i.e. the first two letters of Genus and first three of the Species so "*Helicella itala*" would be "Heita").
2. Select the "Grid map" of the species to view its distribution. Note that at the bottom of the page you can select the datasets that are used to create the map – you may

The UK Biodiversity Action Plan (BAP) Steering Group Meetings

*Martin Willing,
Conservation Officer*

I wrote in *Mollusc World 2* about the activities of the two UK BAP Steering Groups during 2003. Since then each group has met again to continue its work in furthering the objectives of the UK BAP process.

1. The UK BAP Terrestrial Mollusc Steering Group (17th – 19th August 2004)

A field study centre at Halsnery, near Bideford, North Devon was the venue for the sixth UK BAP Terrestrial Steering Group meeting. The group reviewed actions of the previous meeting undertaken during the last year. One major focus of the meeting was to review the UK BAP targets for each of the target species published nine years ago. In that time considerable progress has been made in increasing knowledge of the distribution and status of each of the five¹ species covered by the group. The targets review requires that Steering Groups plan for 'secure status'² for each species and to identify manageable and realistic targets to achieve these goals.

During the meeting the group also discussed the future research requirements for each species and agreed new work programmes for the period 2005 – 2007.

There was a brief discussion on possible changes to the UK BAP Priority Species listing which is being reviewed in 2006 (see item on page 22).

Barry Colville offered his resignation from the group as he felt that his contribution was now of less significance than following the Group's formation. Barry, who has played a major role in the group since its inception particularly with regard to his active field work in

Northern England and Scotland on certain *Vertigo* species and *Catinella arenaria*, was thanked for his valuable contributions to the Group's work. Barry's place will be filled by Geri Holyoak, The Conchological Society's Non-marine Recorder.

The Group spent the morning of 19th August at Braunton Burrows guided by John Breeds (Site Manager) and also David & Geri Holyoak and Martin Willing, who have jointly been studying *Catinella arenaria* (the sand bowl amber snail) populations over a number of years and were monitoring the distribution throughout the system. The management history of the site and some recent problems were explained to the group, who also saw representatives of the rare snail in one of its dune slack habitats. (see images right).

The meeting was attended by Adrian Fowles (Chair: Lead Agency, CCW); Daryl Buck (Environment Agency), Roger Key (English Nature), Alisa Watson (English Nature), Athayde Tonhasca (Scottish Natural Heritage), Barry Colville (Conchological Society), Ian Killeen (Malacological Services), Martin Willing (Conchological Society).

1. The UK BAP Freshwater Mollusc Steering Group (17th February 2005)

This group met at the Environment Agency Offices in Reading. The agenda was similar to that of the Terrestrial Steering Group, focussing upon work undertaken on the six target species³ since the last meeting as well as the BAP Targets Review and the UK BAP Priority Species lists, both of which are being reviewed in 2005.

The meeting was attended by Juliette Hall (Chair: Lead Agency, Environment Agency); Sheila Wilson (Environment Agency), Catrin Grimsted (Environment Agency), Glen Meadows (Environment Agency), Huw Jones (Environment Agency: Wales), Geri Holyoak (Conchological Society), Ian Killeen (Malacological Services), Martin Willing (Conchological Society), David Aldridge (Conchological Society)

¹ The Terrestrial Steering Group covers the BAP Priority species, *Vertigo moulinsiana*, *V. geyeri*, *V. genesii*, *V. angustior* and *Catinella arenaria*.

² 'Secure status' is when (1) the population size and range of a species is either stable or increasing and /or (2) the population dynamics and meta-poulation structure of the species indicate that it is likely to be able to maintain itself on a long-term basis within its natural habitats.

³ The Freshwater Steering Group deal with the five BAP Priority Species *Anisus vorticulus*, *Segmentina nitida*, *Pisidium tenuilineatum*, *Myxas glutinosa*, and *Pseudandonta complanata* as well as the rare RDB species *Gyraulus acronicus*.



The BAP Priority Species Review

I wrote in *Mollusc World* 6 about the forthcoming UK BAP Priority Species Review 2005. All Society members were invited to obtain the necessary criteria document and then submit proposals (for non-marine species; the marine review is being undertaken separately) to the Conservation Officer by early 2005. A

few members submitted proposals or assisted in writing proposal documents. These were duly submitted (between March – April 2005) to Buglife who are co-ordinating all UK invertebrate proposals and then forwarding forms to BRIG (the Biodiversity, Reporting and Information Group who will consider the

proposals in detail later in 2005.

The following table summarises the species proposals satisfying the selection criteria for Priority Species that were submitted to Buglife.

Summary of Non-marine BAP Priority Species: Review Log

Species from original BAP Priority List	Main Author	Other Main consultees
<i>Myxas glutinosa</i>	Huw Jones (EA)	Mike Howe (CCW) & M.J.Willing*
<i>Catinella arenaria</i>	Alisa Watson (EN) / G. Holyoak*	M. J. Willing
<i>Anisus vorticulus</i>	J. Hall (EA)	I.J. Killeen* (MS); M.J.Willing*
<i>Segmentina nitida</i>	Shelagh Wilson (EA) / Kathy Friend (EA)	I.J. Killeen* (MS); M.J.Willing*
<i>Pseudanodonta complanata</i>	Catrin Davies (EA)	D. Aldridge*
<i>Pisidium tenuilineatum</i>	I.J. Killeen* (MS)	M.J.Willing*
<i>Margaritifera margaritifera</i>	Anne Lewis	I.J. Killeen* (MS); M.J. Willing*
<i>Vertigo geyeri</i>	I.J. Killeen* (MS)	M.J.Willing*
<i>Vertigo genesii</i>	I.J. Killeen* (MS)	M.J.Willing*
<i>Vertigo angustior</i>	I.J. Killeen* (MS)	M.J.Willing*
<i>Vertigo moulinsiana</i>	M.J. Willing*	I.J. Killeen* (MS); G. Holyoak*
Newly Proposed candidate BAP Priority Species	Main Author	Other Main consultees
<i>Valvata macrostoma</i>	M.J. Willing*	R. Baker*, G. Holyoak*
<i>Mercuria confusa</i>	M.J. Willing*	R. Baker*, G. Holyoak*
<i>Omphiscola glabra</i>	Craig Macadam (EA)	G. Holyoak*, M.J. Willing*
<i>Gyraulus acronicus</i>	I.J. Killeen* (MS)	M.J.Willing*
<i>Sphaerium solidum</i>	M.J. Willing*	D. Aldridge*, J. Bass*
<i>Vertigo modesta</i>	G. Holyoak*	M.J. Willing*
<i>Lauria sempronii</i>	D. Long*	M.J. Willing*
<i>Truncatellina cylindrica</i>	Richard Lawrence (Ivel & Ouse Countryside Project Manager)	B. Colville*
Species 'flagged up' as UK national responsibilities (but no Species Action Plan recommended at this stage – to be kept under review)	Main Author	Other Main consultees
<i>Leiostryla anglica</i>	M.J.Willing*	Following discussions with: I.J.Killeen* (MS), M. Seddon*, G. Holyoak*, A. Fowles (CCW)
<i>Ashfordia granulata</i>	M.J.Willing*	Following discussions with: I.J.Killeen* (MS), M. Seddon*, G. Holyoak*, A. Fowles (CCW)

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.

Indoor meetings at the Natural History Museum will again be taking place in the Palaeontology Demonstration Room at the end of Gallery 30.

Key to meetings:	
NHM	= Natural History Museum, London, indoor meeting
FIELD	= Field Meeting at outdoor location
WKSHP	= Workshop on molluscan topics
YCS	= Yorkshire Conch. Soc. Events

FIELD - Saturday 16 July: Bristol and North Somerset Leader: Tony Smith (0117 965 6566) (home) (0796 680 7075) (mobile)

Varied sites: Old record of *Segmentina nitida* near Long Ashton, calcareous grassland on Clifton Downs, slug search, cliffs and Tickenham Hill (calcareous woodland and downland). Bring suitable clothing for the weather, stout footwear and water sampling equipment. Lunch at pub or bring packed lunch. Meet in short stay car park at Temple Meads Railway Station at 10:30h to meet trains (Paddington, depart 08:30h, Gloucester, 09:14h and Exeter St Davids 08:33h). Return to Temple Meads 17:30h or 18:30h according to requirements

YCS - Saturday 3 September Pocklington canal, 1 km recording along the canal. Meet at 10:30h at Hagg Bridge on B1228, grid ref. SE 717451.

NHM – Saturday 10 September 14:30h in the Demonstration Room.

We welcome as Guest Speaker Georges Dussart from Canterbury on the subject of 'Deep effects of water chemistry

on the shells of freshwater snails' The wandering pond snail *Lymnaea peregra* (Müller) can be found in a wide range of freshwater habitats, ranging from mountain lakes to chalk streams. These animals thrive in a wide range of water chemistry and the objective of the research was to see how far the water chemistry penetrated into the biology of the snails. The level of biology which is farthest from the chemical environment would appear to be the proteins in the conchiolin of the shell. An atom of nitrogen which ends up in conchiolin will have had a long journey from its starting point in the watery environment. It will have had to travel through several metabolic compartments before being deposited in the conchiolin. So, does the conchiolin of snails from hard, medium and soft water reflect the chemistry of the environment in which they live? To answer this question, wild-caught populations of *L. peregra* from sites of widely differing water chemistry in North West England were investigated. In addition *Bulinus globosus* (Morelet) and *Biomphalaria pfeifferi* (Krauss), snail intermediate hosts of schistosomiasis, sampled from medium waters in Zimbabwe, were cultured for several generations in hard, medium and soft waters in the laboratory and the effect of the water chemistry was investigated. The results show that in both field and laboratory, environmental water chemistry can affect deeply embedded aspects of snail biology such as conchiolin. These results could have implications for the control of snail borne diseases, and for methods of culturing snails in the laboratory.

FIELD - Saturday 1 October Bredon Hill, Worcestershire. Leader: Harry Green (01386 710377) (home)

Bredon Hill is a Cotswold outlier situated in SE Worcestershire. It is quite small (about 6x4 km) and rises sharply from the Severn and Avon valleys to just under 1000 feet. There are superb views all round but especially to the N. and W. Geologically Bredon Hill is the Cotswolds in miniature, being

capped with Oolitic limestone which presents a scarp slope to the north. Beneath this lie the Upper, Middle and Lower Lias formations containing a mixture of clays and limestones. The Hill is already known to be one of the best Worcestershire sites for molluscs with, for example, *Pomatias elegans* in a few places and *Pyramidula rupestris* in the stone walls. The visit will be mainly to rough pastures with small stony outcrops and stone walls on the NW slopes of the Hill. There are also small woods, scattered scrub and ancient trees.

The meeting place will be near Woolas Hall Farm, SO 946410 with roadside parking. This lies on a minor road along the N. side of Bredon Hill between the villages of Great Comberton and Eckington. These villages are about 5 km south of Pershore. We shall walk from the farm to the top of the hill following routes to suit time and energy. Contact Harry Green 01386 710377 or harrygreen@britishlibrary.net for further information.

YCS - Saturday 1 October Dalby Forest. Meet at 10:30h at Low Dalby car park, grid ref. SE 856875.

NHM – Saturday 15 October 14:30h in the Demonstration Room.

We welcome as Guest Speaker Martin Willing from Midhurst on the subject of 'Molluscs and favourable conservation status: what does this mean?'

Abstract
A challenge for conservationists wishing to maintain mollusc populations is to know if they are declining or able to maintain themselves without special management. Detailed ecological studies can allow the formulation of 'common standards monitoring' protocols. These can be used to make reasonably objective judgements about the conservation status of a species at a particular location. Chiefly by focussing upon studies of two freshwater species, the talk explores how this process can be

undertaken and explores some of the difficulties and problems encountered.

FIELD - Saturday 22 October and Sunday 23 October Angling Spring Wood, Buckinghamshire Leader: Liz Biles (01747 860146) (home)

A meeting to look for *Limax cinereoniger* and *Malacolimax tenellus*. Angling Spring Wood is predominantly an old beech wood with some mixed planting, managed, until recently, by Chiltern District Council and now by local wildlife groups. The soil is predominantly clay with flints overlying chalk. This lies on steep slopes within the wood. However, the wood is not large and after lunch the meeting may move on to a second site. There is no parking in the immediate vicinity of the wood but members, Tony and Val Marshall, have kindly offered for those arriving by car to park in their drive and overflow into the road where there is usually space. (Grid ref. SP 8785 0028 to arrive by 09:30h). There is a walk of just under a kilometre to the meeting point in the wood from here. Those arriving by train should travel to Great Missenden, the nearest toilet facilities to the wood, and walk half a kilometre to the meeting point which is in the central ride of the wood (Grid ref. SP 8861 0099 to arrive by 10:00h). Bring lunch.

Sunday 23rd October Ashridge - 8th Margaret Holden Memorial Fungus Foray Joint foray with Herts. Natural History Soc., Herts Fungi Group, British Mycological Soc. and the National Trust (whose site Ashridge is). Leaders Alan Outen & Kerry Robinson. Meet at 10.00 am or at 1.30 pm (or stay all day!). Meet at National Trust Offices by the Monument at SP 970131, reached by turning off the B 4506 road from Berkhamsted to Ringshall.

Stout footwear and warm/waterproof clothing recommended depending on the weather. This site is suitable for children although supervision is particularly required on the steep slopes. Please contact Liz Biles if