

# Mollusc World

Issue 32

July 2013

**Flame shells of Kyle Akin**  
**South Wales field trip**  
**Officers' reports**



**The Conchological Society of Great Britain and Ireland**

*Helping to understand, identify, record, and conserve molluscs*

## From the Hon. Editor

The Conchological Society's involvement in relevant conservation issues continues thanks to the commitment of many members including our Hon. Conservation Officer, Martin Willing (see his report on page 3). The Society contributed to the widely promoted UK 'State of Nature' report and was represented at its launch at London's Natural History Museum on 22<sup>nd</sup> May particularly by Peter Cosgrove who gave a short 'case study' talk about monitoring the threatened freshwater pearl mussel, *Margaritifera margaritifera* in Scottish rivers (below).



On 18<sup>th</sup> June I attended the opening of the new Alan Stubbs library at the headquarters of Buglife in Peterborough. Alan has a distinguished reputation in invertebrate conservation and is a founder of this campaigning charity of which Conch. Soc. is a member. It is hoped that the library will provide a useful open resource for naturalists with an interest in invertebrates (below: Matt Shardlow of Buglife (left) with Alan Stubbs). This also acts as a reminder that conservation can begin in a small way with our own field work, recording and reporting the species we see.



*Peter Topley*

## Mollusc World

This magazine is intended as a medium for communication between Conchological Society members (and subscribers) on all aspects of molluscs. We include articles, field meeting reports, research news, results from the mapping schemes and identification aids. We welcome all contributions in whatever form they arrive (see page 31 for further details).

## Contents

- 3 Conservation Officer's Report 2012** *Martin Willing*
- 6 'On the spot' questionnaire: Graham Long  
Marine Recorder's report 2012** *Bas Payne*
- 7 Non-marine recording 2012** *Adrian Norris*
- 9 Some recent snail records from Southern England**  
*Jonty Denton*
- 10 Specialist predators of molluscs** *Clive Craik*
- 12 Book: A Slow Passion by Ruth Brooks** *Peter Topley*
- 13 A shelling trip to the north of Britain**  
*John Llewellyn-Jones*
- 14 TRG/WTKG forthcoming publication**
- 15 The flame shells of Kyle Akin** *Dan Harries*
- 18 The snails of St Sebald** *Adrian and Barbara Norris*
- 19 Nerites of the Matutinao River, Cebu, Philippines**  
*Malcolm Symonds*
- 20 British Shell Collector's Club meetings**
- 22 Field meeting: South Pembrokeshire,  
16<sup>th</sup> – 20<sup>th</sup> September 2012** *Celia Pain*
- 26 J. Wilfrid Jackson's conchological correspondents**  
*Brian Goodwin*
- 28 Letter: Giant African snails** *Sarah Lucas*
- 29 Hon. Treasurer's Report on the financial  
statements to 31<sup>st</sup> December 2012** *Nick Light*
- 30 About the Society/Instructions to authors**
- 32, 31 DIARY OF MEETINGS/ new members**

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No representation is made about the accuracy of information included in any articles, which solely constitute the authors' personal views on the subjects covered, and are not necessarily those of the Hon. Editor or the Conchological Society.

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Front cover: Flame shell (*Limaria hians*) emerging from nest entrance, Kyle Akin, Scotland. (Photo by G. Saunders) (see page 15).



A wide variety of help and advice has been given to various organisations and individuals including identification of specimens, and habitat management/conservation guidance. Selected examples include:

**a) Pagham Harbour.** The RSPB took over the management of Pagham Harbour LNR from West Sussex County Council and The Sussex Wildlife Trust in 2012. The site is a very important for a wide range of wetland, brackish, upper-tidal and fully marine molluscs (figure 1). The Harbour supports regionally important populations of *Truncatella subcylindrica*, *Leucophytia bidentata* and the Wildlife & Countryside Act protected *Caecum armoricum* (Pain *et al* 2009: *J. Conch.* **39**: 779 – 780). In August 2012 I joined RSPB staff to inspect key areas of the reserve to discuss management options to assist in the conservation of these and other molluscs (figure 2).



figure 1: View of *Truncatella subcylindrica* habitat, Pagham Harbour.



figure 2: RSPB staff trying to find *T. subcylindrica* (after Conch. Soc. training!).

**b) *Segmentina nitida* translocation:** In late 2012 the RSPB received a request by the Kent Wildlife Trust (working in association with Christ Church University, Canterbury) to introduce captive bred *Segmentina nitida* to ditches on an RSPB reserve at Willow Farm, Lydden, Kent (example of typical habitat shown in figure 3). The Conch Soc was invited to comment upon the proposals. I reviewed the background information and advised caution. The proposals were to be further considered by RSPB and the Society in 2013.



figure 3: Ditch on Pevensey Levels that supports *Segmentina nitida*.

**c) Possible *Pomacea* restrictions:** In February 2012 The Plant Health Policy team at DEFRA asked for the Society's views on possible controls (on sale, importation restrictions and wild release bans) of the Island Apple Snail *Pomacea insularum* (figure 4) (and possibly also the almost indistinguishable *P. canaliculata*), a freshwater species from South America. *P. insularum* has been causing problems in the Ebro delta of Spain, where it has been causing damage to rice production and the natural environment. It has also been causing similar problems in the southern United States. As the snail can currently be imported, bred and traded freely in the UK, there is the possibility of release into the environment, either intentionally or accidentally from outdoor aquaria ponds and other sites. While rice fields and natural wetlands are known to be at risk, other aquatic environments could also be threatened, through impacts on ecosystems and biodiversity. Therefore wetlands and other aquatic bodies both in parts of the UK and elsewhere in the EU could be at risk due its catholic diet and also that it can survive in a range of climatic conditions. The Society sent a reply which stated, 'While it would appear that *Pomacea* currently poses a low threat to the UK because it probably has problems coping with our lower temperatures, we would support a precautionary ban on the importation of live animals of all *Pomacea* species into the EU, especially as their importation has no clear, substantial benefits, partly because of likely damage in southern parts of the EU (e.g. the Po Valley); and partly because the potential threat in the UK should not be ignored – there are probably particular local hot spots already where it could establish. Suitable conditions are likely to increase if temperatures continue to rise, and the species may also manage to adapt to British conditions.'



figure 4: *Pomacea insularum* from Argentina.

(Photo: Peter Topley)

**d) Chingford Pond Restoration:** Chingford Pond (figure 5) is part of a pond and stream complex lying south of Petworth in the South Downs National Park. This pond and the adjacent Burton Mill Pond support a large and regionally very important population of the EU Habitats and Species Directive / UK BAP priority *Vertigo moulinsiana*. There are plans to restore water levels in the pond with a possible impact on populations of the snail. I was able to provide advice on pond restoration plans through the Conservation Committee of the Sussex Wildlife Trust to minimise impact on this important snail population. Consultation to consider management options will continue into 2013 when a planning application is expected.



figure 5: Chingford pond.

I attended a two-day conference in Milton Keynes in March 2012 initiated by the RSPB, entitled 'Developing a biodiversity indicator for priority species in the UK' (figure 6). The overall purpose of this event was to bring together representatives<sup>1</sup> from a wide range of conservation organisations to consider an integrated 'biological indicator' to describe the changing state of UK priority species. The UK Biodiversity Action Plan (BAP) process, initially launched in 1995 has, since its introduction, resulted in a substantial amount of survey, monitoring and ecological research work focussed upon BAP priority plants, animals and fungi and lichens (for background see *Mollusc World*: 3:14–15; 8: 22; 13:26). There are now 19 non-marine and 3 marine BAP molluscs in the UK. In recent years the Government (through its co-ordinating organisations: JNCC, English Nature, Countryside Council for Wales, Scottish Natural Heritage) has largely moved away from the BAP process, although BAP species status continues to be used for a range of purposes such as planning application, environmental statements and SSSI condition assessments. With the near complete loss of BAP steering groups and reviews, there is no co-ordinated process to assess the status of our priority species in the UK. This is at a time when threats to much wildlife are increasing with some species in serious decline. Equally, on a more positive note, some taxa are increasing, usually due to conservation efforts and it is equally important to report on these successes.

The workshop was set up with an ambitious agenda; to develop a working partnership between organisations to develop a framework programme of indicators and then take the project forward. Over its two days the workshop discussed and explored: data availability and quality; indicator species or species groups to be selected and

options for data trend analysis. The workshop concluded with the unanimous decision to work over about a year to develop a publication on the 'state of nature in the UK'.



figure 6: Attendees at the RSPB 'State of Nature' conference (Martin is centre front in light blue shirt).

Later in 2012 20 organisations were invited to complete a 'state of nature' questionnaire covering background views and summary information on priority species. The state of nature report would aim to provide a single, clear message on the current status of species in the UK and UK Overseas Territories. Most of the report would have sections dealing with broad habitat types<sup>2</sup> and for each of these overviews of how different groups of organisms are faring, what are the key 'drivers' of change and illustrations of key conservation projects. Additionally there would be small sections dealing with issues relating more specifically to each country in the UK.

The Conchological Society, along with several other invertebrate organisations was not readily able to provide detailed trend analysis for all but a small number of species. At the time of draft report writing in autumn 2012 much molluscan trend data was in the process of being considered for (1) the governmentally led 'Article 17' reporting to the EU on the condition of species on the EU Habitats and Species Directives (with six non-marine molluscs) and (2) the on-going Red list reviews (*Mollusc World* 29: 9). Although much general trend data was able to be provided, each of the many species groups were asked to provide 'case-study' details of one or two species. Consideration of the options led to the conclusion that the ideal 'case-study' mollusc to choose was the freshwater pearl mussel, *Margaritifera margaritifera* because:

- It is threatened throughout its international range.
- It is present (just!) in all countries in the UK.
- Except in Scotland it is endangered.
- It is one of the few UK molluscs where accurate contemporary trend data is available.

At the end of 2013 early drafts of the 'state of nature' report were launched, but considerable further work was due to be undertaken in early 2013. Further details will appear in my 2013 report. Before the end of 2012 it was decided to launch the State of Nature report at the Natural History Museum on 22<sup>nd</sup> May 2013, with keynote speakers including David Attenborough.

### **British Wildlife**

Three molluscan 'wildlife reports' were published during 2012 in *British Wildlife* magazine. These covered a range of topical and hopefully interesting molluscan issues and to promote the work of the Conchological Society and its members. The features included digests and discussion of

the marine and non-marine reports and details of various joint initiatives involving the Society with other organisations in the production of species management sheets (e.g. Buglife, Suffolk Wildlife Trust and Natural England). Other news included items on Roman snail poaching on the North Downs, losses of pearl mussels in Cumbria, new nudibranch finds to the UK and reports of additional *Helix lucorum* finds.

### The 6<sup>th</sup> Quinquennial Review of the Wildlife & Countryside Act, 1981

'Hot on the heels' of the 5<sup>th</sup> Quinquennial Review (QQR) of the Wildlife and Countryside Act (*Mollusc World* 29:8) came the consultation launch of the 6<sup>th</sup> QQR. Member organisations of Invertebrate Link decided to form a steering group so that invertebrate responses to the review could be co-ordinated; I represented molluscan interests as a member of the group. We were still in the process of discussing matters at the end of 2012. For molluscs it is likely that recommendations forwarded for the 5<sup>th</sup> QQR, but dropped by JNCC before being sent to DEFRA, will be resubmitted. Final discussions will take place in 2013.

### Roman Snails and the 'One Show'

On May 7<sup>th</sup> 2012 I took part in a BBC location shoot at the National Trust's Chedworth Roman Villa in Gloucestershire. The theme of the filming was Roman Snails, *Helix pomatia*, and their links to the Romans. This is especially appropriate at Chedworth because Roman snails are still living on the site and conveniently, were 'up and active' around the Villa at the time of the filming. I was interviewed by the feature presenter Dr George McGavin when I was able to discuss the snail's probable introduction to Britain as a result of the Romans. Additionally the programme explored threats to these iconic snails and recent measures to conserve and protect them including their recent addition to Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).



figure 7: BBC cameraman filming *Helix pomatia* at Chedworth Roman villa for the 'One Show.'

### Red Lists

In my last Conservation Officer's report (*Mollusc World* 29:9) I reported that Buglife were considering advancing the Red List process for a number of invertebrate groups, including UK non-marine Mollusca, where the withdrawal of JNCC support had 'stalled' the process. In 2009–2010 Mary Seddon and Ian Killeen had, in consultation with many members of the Conchological Society, produced a near complete draft assessing all UK non-marine taxa. In 2012 the Countryside Council of Wales (CCW), under the direction of Adrian Fowles (Senior Invertebrate Ecologist) stepped in to re-start the process by providing support for Mary Seddon to continue consultations with a number of Conchological Society members and others. Wisely the particular priority was a focus on threatened and near-threatened species. It is expected that a final draft dealing with these categories will be finished in early 2013.

### Associations with other organisations:

The Society actively associates with many other conservation organisations. These include Buglife, which, since its launch over ten years ago, has become an influential invertebrate campaigning organisation ([www.buglife.org.uk/](http://www.buglife.org.uk/)) and Invertebrate Link ([www.royensoc.co.uk/InvLink/Index.html](http://www.royensoc.co.uk/InvLink/Index.html)), which meets biannually, providing a forum where representatives from NGOs and governmental conservation bodies discuss and take action on 'all matters invertebrate'. Other key partners have included the RSPB and the Wildlife Trusts. As a member of the Sussex Wildlife Trust's Conservation Committee I have been able to represent molluscan interests and contribute a records report to Adastra, the annual review of wildlife recording in the county ([www.sxbrc.org.uk/](http://www.sxbrc.org.uk/)). In January 2012 I attended a conference at the University of Brighton run by the Sussex Wildlife Trust entitled, 'Water & Wetlands: Key issues and future priorities for Sussex'; much of the content had direct molluscan relevance.

### Notes

<sup>1</sup> Representative organisations including: Amphibian & Reptile Conservation, Bat Conservation Trust, Biological Records Centre, British Dragonfly Society, British Trust for Ornithology, Buglife, Bumblebee Conservation Trust, Butterfly Conservation, DEFRA, Hymettus Ltd., JNCC, Mammal Society, Natural England, People's Trust for Endangered Species, Plantlife, Pond Conservation, RSPB, The Conchological Society, The Wildlife Trusts.

<sup>2</sup> Broad habitat types: 1. Enclosed farmland, 2. Lowland semi-natural habitats, 3. Uplands, 4. Marine & coastal, 5. Freshwater & wetlands, 6. Urban and 7. Woodlands.

## ‘On the spot’ questionnaire: Graham Long

**Where do you live?** Fordingbridge, Hampshire (on the margins of the New Forest).

**What do you do for a living?** Work hard to make retirement creative.

**What areas of conchology particularly interest you?** British non-marine species, fossils, shell artefacts and ephemera.

**How did your interest in molluscs begin?** Random seashell collecting as a teenager, much more focused when working in the Channel Islands, when the switch of focus to non-marine took place to assist June Chatfield’s work in updating the non-marine mollusca of Jersey. I just happened to enquire about some non-marine shells brought back from Devon at the time when June was beginning her research. She ran the project and I acted as the ‘in Jersey’ resident and fieldworker, at the same time changing emphasis from entomology (butterflies and moths) to conchology.

**When and how did you become a member of the Conchological Society?** In 1974, introduced by June Chatfield.

**In what ways have you been involved in the Society and its activities?** Not a lot until retirement in 2002. Prior to that, as a working minister, weekend meetings were an impossibility.

**Do you have a memorable ‘conchological moment’?** The look on the face of an irritated Jersey resident who, thinking that I was setting baited fishing lines at low tide, walked at least a mile down the beach to reprimand me only to be shown a tube full of *Hydrobia* sized shells.

**If you were marooned on a desert island and could take only one book with you what would it be and why?** It may sound trite but I would take my hymn book!



Graham recording in the river Wey, 2010. (photo: Peter Topley)

**If your house was burning down what shell (or shell-related item) would you rescue first?** A Victorian lady’s evening purse made out of a freshwater mussel, beautifully lined and silver mounted, that was given to me by an old lady in Jersey. It carries so many memories of my ministry in the Islands.

**Where is your favourite location for mollusc/shell hunting?** Where I happen to be! However, the challenge of a previously unresearched area is attractive.

**Do you draw any particular inspiration from historical figures in natural history and why?** No. But I have from two temporary curators in 1944/45 at the Cartwright Museum in Bradford who befriended me as an evacuee, and took me behind the scenes and opened my eyes to the wealth and breadth of natural history.

**What words of advice would you give to a budding conchologist?** Large shells are showy but, in my opinion, the most attractive and amazing are the ‘tinies’, whether marine or non-marine.

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## Marine Recorder’s report 2012

The Society spent the year without a Marine Recorder; doubtless for this reason, relatively few records were sent in. It is a pleasure – and a relief – to report that Simon Taylor has recently taken over as Acting Marine Recorder and is standing for election at the April 2013 AGM; please keep the records coming in.

There were two marine field meetings in 2012: one, at Titchfield Haven in Hampshire, the other a 4-day meeting in South Pembrokeshire. Members also took part in a very successful Porcupine meeting in Guernsey.

Titchfield Haven produced a list (MW 30, p.21) of about 30 species, which included the introduced American quahog, *Mercenaria mercenaria*, close to the site of its original introduction in the 1950’s. Other noteworthy species included live *Osilinus lineatus* close to its eastern limit along the Channel shore; weed washings were relatively unproductive, but live *Brachystomia lukisi* was found by Rosemary Hill in tubeworm scrubblings.

A variety of shores were visited in South Pembrokeshire; a good variety of species, large and small, was found, and the final combined list is eagerly awaited. A personal highlight was the finding of good numbers of *Tellimya ferruginosa* living with sea potatoes in fine sand near LWS at Monkstone Point, Saundersfoot [see also page 25].

Noteworthy reports from other members include:

- a full-grown *Ensis directus* found by Paul Dansey in a bag of *E. siliqua* collected in 2010 from Barkby Beach, Prestatyn, N Wales, suggesting that *Ensis directus* has been in Liverpool Bay since around 2005;
- *Doris ocelligera* found by David Fenwick in April 2012 at Larrigan Rocks, Wherrytown, Penzance, Cornwall: there have now been several records in south Cornwall.

The rapid improvement in digital cameras capable of producing good macro images in low light and of surviving conditions on the shore and while diving has in recent years resulted in an explosion of good images of British nudibranchs, range extensions, and records of new British species. It is good to have seen a large number of very fine new images of nudibranchs and of shelled molluscs appearing on the Society’s website during 2012 thanks to Ian Smith and other members.

*Bas Payne* Acting Marine Recorder, March 2013

A large and thriving colony of the southern European species *Helix lucorum* at Pitfield Open Space in Hoddesden, Hertfordshire in June 2012 was an unexpected discovery (figures 1-4). A third specimen of this species was found in Cardiff in July 2012. The find of the large colony sparked a thorough check of all the *Helix pomatia* records received in recent years, in case other records had crept into the system unknown to us. Fortunately, these records appear to be separate instances, and do not appear to affect the status of *Helix pomatia* in Britain.



figures 1-4 (above): *Helix lucorum* colony habitat at Pitfield Open Space, Hoddesden, Herts., July 2012, with many adults and juveniles. Egg laying was also observed. (photos: Peter Topley)

The work being undertaken by Ben Rowson at the National Museum of Wales in Cardiff to update and establish once and for all the status of our slug species in Britain has already produced some very interesting results.

Additionally, the work undertaken by the Opal Project on *Limax maximus* has resulted in a large number of incidental records of other large slugs found in gardens. These two projects have resulted in numerous new VC records. The Opal Project has proved how difficult it is to survey gardens and the two projects together indicate how under-recorded slugs are in Britain. The project by Ben Rowson will provide further new records, some of which cannot be published until later.

The paper by Heike Reise *et al.* (2011) on *Deroceras invadens* stating that the species we know as *Deroceras panormitanum* is not correct, due to the fact that *Deroceras panormitanum* is a separate species also thought to occur in Britain, helps to bring the whole world of slugs and their identification into a new context.

The outstanding record for this year is the occurrence of *Arion fuscus*. These are the first confirmed records of this species I have within the dataset.

The discovery of a large number of colonies of *Vertigo moulinsiana* in the Midland fens by Tony R. Abrehart as well as *Segmentina nitida* are perhaps the most significant records for the year (Abrehart, 2011).

A colony of *Hygromia cinctella* in a garden in Southampton also highlighted the problems we have with the NBN and its database. Once I had identified the species and that it was new to South Hampshire, the recorder pointed out that it also occurred on the NBN in several other surrounding areas. None of these records are currently held by us.

**East Cornwall** (VC2): *Arion rufus* seg. Luxulyan Valley, (SX600568), 03.07.2012, J.A. Turner & B. Rowson

**South Devon** (VC3): *Arion ater* seg. Dartmoor, (SX612771), 23.07.2011 W.O.C. Symondson. Det. B. Rowson

**North Devon** (VC4): *Lehmannia valentiana*, (SX5919595043), 18.06.2011, Opal Project

**North Somerset** (VC6): *Limacus maculatus*, (ST5623271583), 28.06.2011, Opal Project

**North Wiltshire** (VC7): *Limacus maculatus*, (SU1383586590), 16.10.2011, Opal Project

**South Wiltshire** (VC8): *Arion ater* seg. Upper Canterton, (SU271123); *A. vulgaris*, *Lehmannia valentiana* Salisbury (SU139312); *A. owenii*, E of Brockenhurst, (SU316236) all 25.08.2012 all B. Rowson

**Dorset** (VC9): *Limacus maculatus*, Sutton Poyntz, (SY704837), 01.03.2013, John Newbould, Det. A. Norris

**South Hampshire** (VC11): *Arion circumscriptus* seg. Hinton Ampner, (SU597274), 16.06.2012, A. Norris; *Hygromia cinctella*, 120 Oaktree Road, Southampton, (SU4414), 10.10.2012, Mark G Painter, Conf. A. Norris

**North Hampshire** (VC12): *Cochlicella acuta*, Thruxton, (SU297458) 18.08.2012; *Hygromia cinctella*, Four Marks & Glebe Meadows, Overton (SU5140-5150) 01.033.2010 both Dr J. Denton; *Malacolimax tenellus*, Chawton Park Wood, Medstead, near Alton, (SU6731236530), 25.10.2012, June Chatfield.

**West Sussex** (VC13): *Lehmannia valentiana*, (TQ1066704356), 27.05.2012, Opal Project; *A. rufus* seg., *A. vulgaris*, Findon Valley, (TQ131673) 09.07.2012, P.G. Oliver, Det. B. Rowson; *Helix pomatia*, Bignor Hill near Petworth, (SU975130) Sebastian Anstruther, 02.2012, Det. M.J. Willing

**East Sussex** (VC14): *Arion circumscriptus* seg. Battle Site near Hastings, (TQ750157); *Physella acuta*, (TQ748152), 19.06.2012, A. Norris; *Lehmannia valentiana*, (TQ3933138590), 02.10.2011, Opal Project

**East Kent** (VC15): *Hygromia cinctella*, Cuxton Pit, (TQ7267) 2005 Dr J. Denton; *Physella acuta*, Canterbury, (TR137587), 28.04.2002, Ron Carr; *Arion ater* seg. Blean Woods NNR, (TR121594) 08.10.2011 B. Rowson

**West Kent** (VC16): *Arion distinctus*, All Saints Church, Snodland, (TQ707618), 30.06.2012, A. Norris; *Physella acuta*, Farningham Wood, (TQ5368), 10.05.2001, Ron Carr; *A. flagellus*, One Tree Hill (TQ580533), 07.10.2011, B. Rowson

**Surrey** (VC17): *Physella acuta*, Morden Hall Park, (TQ2668), 19.05.2001, Ron Carr

**South Essex** (VC18): *Limacus maculatus*, (TQ5425592358), 02.05.2012, Opal Project

**North Essex** (VC19): *Limacus maculatus*, (TM0171224902), 12.05.2012, Opal Project

**Hertfordshire** (VC20): *Helix lucorum* Hoddesdon, (TL3607), 09.06.2012, Maurice Pledger, Det. A. Norris

**Middlesex** (VC21): *Limacus maculatus*, (TQ1366882527), 09.06.2011, Opal Project; *Arion rufus* seg, Enfield, (TQ330960), 17.08.2012, B. Rowson

**Oxfordshire** (VC23): *Limacus maculatus*, (SP5291504311), 15.08.2011, Opal Project

**Buckinghamshire** (VC24): *Helix pomatia* Aston Clinton, 23.05.2005, Martin C. Harvey; *Limacus maculatus*; Great Missenden, (SP896011), Rosemary Pearce, 30.11.2008, Det. Martin C. Harvey; *Physella acuta*, Grand Union Canal, nr Iver, (TQ045806), 19.08.2012, Steven Green, Det. A. Norris; *Stagnicola fusca*, Farlows lake, (TQ04078010), 12.11.2012, Steven Green, Det. Ron Carr

**West Suffolk** (VC26): *Arion circumscriptus*, Sapiston, (TL932762), 13.08.2011, B. Rowson

**East Norfolk** (VC27): *Limacus maculatus*, (TG2142201141), 10.04.2012, Opal Project; *Arion ater* seg. Wheatfen Broad, (TG327547), 15.08.2011, R. Baker, D. Howlett, Det. B. Rowson

**West Norfolk** (VC28): *Limacus maculatus*, (TF8177415118), 26.10.2011, Opal Project

**Cambridgeshire** (VC29): *Limacus flavus*, Wicken, (TL571710), 04.08.2012, Chris Du Feu; *Arion ater* seg. *A. vulgaris*, (TL571702), Wicken, 01.09.2012, *A. circumscriptus* seg. (TL571710) Wicken, 20.04.2012 Chris Du Feu, Det. B. Rowson

**Bedfordshire** (VC30): *Limacus maculatus*, (TL0635843741), 29.06.2011, Opal Project

**Huntingdonshire** (VC31): *Arion distinctus*, Orton Hall, Peterborough, (TL168966), 01.07.2012, A. Norris

**East Gloucestershire** (VC33): *Limacus flavus* Conygre Wood, Stroud, (SO869048), 21.01.2012; *Arion distinctus*, Painswick (SO858097) 22.01.2012; *Arion rufus*, Painswick, (SO866109), 08.04.2012 all John Fleming

**West Gloucestershire** (VC34): *Arion circumscriptus* seg. *A. distinctus*, *A. hortensis*, The Slaughter, (SO553142), J.A. Turner, Det. B. Rowson

**Monmouthshire** (VC35): *Arion distinctus*, *A. owenii*, *A. flagellus*, Old Quarry, (SO1529500636), 06.01.2012; *A. silvaticus*, Aberbargoed Grasslands, (ST1641299110), 07.01.2012; *A. ater* seg., Commin, (SO158015), 22.06.2012 all Christian Owen; *A. rufus* seg. Aberbargoed, (SO157707), 29.09.2011, C. Owen, Det. B. Rowson

**Worcestershire** (VC37): *Arion ater* seg. (SO740757), *A. silvaticus*, (SO758769), 17.09.2011, B. Rowson

**Warwickshire** (VC38): *Limacus maculatus*, (SP1503488854), 25.06.2011, Opal Project

**Staffordshire** (VC39): *Arion owenii*; *A. flagellus*, (SJ 843467), Newcastle-under-Lyme, 04.01.2012, John Fleming; *A. rufus*; *A. distinctus*, *A. silvatica*, Newmarket, (ST4398), 07.04.2012 all John Fleming; *Vertigo moulinsiana*, Aqualate Mere NNR, (SJ780202), 01.2012, Toby R. Abrehart

**Shropshire** (VC40): *Arion owenii*, Pettingham, (SO815946), 01.09.2012, John Fleming, Det. B. Rowson; *Limacus flavus*, *Arion distinctus*, Altringham Park, (SJ5410), 04.10.2012 all Chrisdu Feu; *Vertigo moulinsiana*, Cross Mere, (SJ4330), 01.2012, Toby Abrehart, (Confirmation of old record)

**Glamorgan** (VC41): *Helix lucorum*, Cardiff, (ST182763), 06.07.2012, B. Rowson; *Lehmannia valentiana*, (ST01766805), 06.04.2012, Opal Project; *Arion flagellus*, *A. circumscriptus*, Old Mill Bridge . Rhymney River, (SO15060034), 06.01.2012; *A. silvaticus*, Rhaslas Pond, (SO0907), 07.01.2012; *A. distinctus*, *Groes-jaen Quarry*, (SO1431900956), 22.04.2012; *A. ater* seg. Rhaslas Pond, (SO0907), 17.05.2012 all Christian Owen; *A. rufus* seg. 19.09.2011, *Limacus flavus*, 23.08.2011, Pontyclun, (ST378816), *L. maculatus*, (SS889734), near Ogmores-by-Sea, 22.08.2011 all B. Rowson

**Breconshire** (VC42): *Arion flagellus*, *A. distinctus*, Llwyn-on Reservoir, (SO007119), 08.01.2012 all Christian Owen; *A. ater* seg. (SN994212), 07.04.2012, *A. rufus* seg. 24.09.2011, both Brecon Beacons NP, B. Rason, *Agriolimax agreste*, Craig Carreg-Gleisiad & Fan Frynych NNR, (SN962219), 18.05.2012, J.A. Turner, Det. B. Rowson

**Merionethshire** (VC48): *Arion ater* seg. Cadair Idris (SH718122), *A. rufus* seg. Plas Tan-y-Bwlch, (SH656407), *A. distinctus*, Coed Camlyn NNR, (SH657398) all 05.2012, J.A. Taylor Det. B. Rowson

**Caernarvonshire** (VC49): *Arion ater* seg. near Pencraig, NE of Betws-y-Coed, (SH772562), *A. silvaticus*, Cwm Idwal NNR, (SH645582), 15.05.2012, J.A. Turner Det. B. Rowson

**Denbighshire** (VC50): *Arion flagellus*, Glyn Ceiriog, (SJ192349), *A. owenii*, Ceiriog Valley, (SJ228377), both 03.08.2011, W.O.V. Symondson, Det. B. Rowson

**South Lincolnshire** (VC53): *Limacus maculatus*, (TF0596164207), 15.06.2011, Opal Project

**North Lincolnshire** (VC54): *Arion silvaticus*, Carr's Lane, Gainsborough, (SK8188), 22.04.2012; *Arion ater* seg. Kirton-in-Lindsey, (SK935989), 21.03.2012; *A. circumscriptus*, Lady Lee Quarry, (SK5679), 21.04.2012 all Chris Du Feu

**Leicestershire** (VC55): *Hygromia cinctella*, Leicester, (SK625033), 25.05.2012, Dave Nicholls, Det. A. Norris; *Limacus maculatus*, (SP6135299583), 13.06.2011, Opal Project

**Nottingham** (VC56): *Anisus leucostoma*, Beckingham Marshes, (SK794895), 17.07.2012, Chris Du Feu; *Arion fuscus*; Ash Tree Hill Wood, Clumber Park Country Park, (SK633753), 21.04.2012, B. Rowson & Chris du Feu

**Derbyshire** (VC57): *Limacus maculatus*, (SK4866032937), 12.07.2011, Opal Project; *Arion ater* seg. NE of Buxton, (SK150826), 22.09.2012, P. & C. Tattersfield, Det. B. Rowson

**Cheshire** (VC58): *Vertigo moulinsiana*, Chapel Mere, SSSI (SJ539516); *Segmentina nitida*, Tatton Park Mill Pond, (SJ759817), 01.2012, both Toby R. Abrehart

**South Lancashire** (VC59): *Helix lucorum*, Woolston Eyes SSSI, near Warrington, (SJ649884) Kieran Foster, 02.02.2013, Det. Ian Wallis

**West Lancashire** (VC60): *Arion distinctus*, *Limacus maculatus*, Carnforth, (SD496704), 19.02.2012, Chris Du Feu

**North-east Yorkshire** (VC62): *Arion vulgaris*, Scarborough Spa Complex, (TA0487), 22.08.2012, *Arion ater* seg. Baxton's Wood (SE612887), 26.09.2012, A. Norris, *et al.*, Det. B. Rowson

**Durham** (VC66): *Stagnicola fusca*, Hell's Kettles, (NZ280108), 14.07.2012, A. Norris

**South Northumberland** (VC67): *Limacus maculatus*, (NZ2947381824), 13.06.2011, Opal Project

**Westmorland** (69): *Arion owenii*, Ambleside, (NY37670354), 04.07.2012; *Lehmannia valentiana*, Bowness, (SD409976), 01.07.2012, Chris Du Feu; *A. rufus* seg. Elterwater, (NY317470) 02.08.2012, *A. ater* seg. Moss Rigg Wood, (NY312290), 03.08.2012 both J.A. Turner & V. Purewal, Det. B. Rowson

**Cumberland** (70): *Zonitoides arboreus*, Carlisle, (NY4055), 22.04.2008, S.P. Dance, Det. Tom Walker

**Wigtownshire** (VC74): *Stagnicola fusca*, Elrig Loch, (NX324493), 22.05.2012, A.T. Sumner, Det. Ron Carr

**Ayrshire** (VC75): *Limacus flavus*, Ayr, (NS333220), 03.09.2012, N.G. Foster Det. B. Rowson

**Renfrewshire** (76): *Lehmannia valentiana*, (NS546583), *Balea heydeni*, (NS549578), Rouken Glen, both 05.10.1912, A.T. Sumner

**Peebleshire** (VC78): *Stagnicola fusca*, The Cuddy, (NT250411), 26.05.2012, A.T. Sumner, Det. Ron Carr

**Selkirkshire** (VC79): *Limacus maculatus*, (NT4718128532), 04.09.2011, Opal Project

**Roxburghshire** (VC80): *Azeza goodalli*, *Limax cinereoniger*, Denholm Dean, (NT564172), 19.05.2012, A.T. Sumner

**Midlothian** (VC83): *Hygromia cinctella*, Roseburn Path, Edinburgh, (NT2273), 13.07.2012, A.T. Sumner

**West Lothian** (VC84): *Hygromia cinctella*, Eliburn Wood, Livingston, (NT036683), 11.04.2012; *Lehmannia valentiana*, *Succinea putris*, *Monacha cantiana*, Kirkliston, (NT1274), 09.2012 all A.T. Sumner

**Fifeshire** (VC85): *Milax gagates*, *Hygromia cinctella*, St Andrews, (NO5116), 03.07.2012; *Acicula fusca*; *Vertigo pusilla*, Aberdour-Burmtisland, (NT206865), 28.04.2012; *Lehmannia valentiana*, Kinghorn, (NT270865), 05.07.2012 all A.T. Sumner



**West Perthshire** (VC87): *Limacus maculatus*, (NN7259601649), 06.04.2012, Opal Project

**Mid Perthshire** (VC88): *Tandonia budapestensis*, Easter Moncreiffe, (NO149195), 10.09.2010, J.A. Turner Det. B. Rowson

**South Aberdeenshire** (VC92): *Boettgerilla pallens*, *Arion owenii*, *Arion flagellus*, Seaton Park, Aberdeen, (NJ9309), 25.07.2012; *Musculium lacustre*, Haughton Country Park, (NJ577165), 26.07.2012 all A.T. Sumner; *Limacus maculatus*, (NJ5853704432), 23.06.2011, Opal Project

**North Aberdeenshire** (VC93): *Arion owenii*, *Arion flagellus*, *Lehmannia valentiana*, Aden Country Park, (NJ9848); *Boettgerilla pallens*, Mintlaw Station, (NJ989484), 24.07.2012, all A.T. Sumner

**Moray** (VC95): *Arion fuscus*, Dulnain Bridge, Cairngorms NP, (NJ254250), 09.09.2010, J.A. Turner Det. B. Rowson

**East Inverness** (VC96): *Arion circumscriptus* seg. Insh Marshes NNR, (NH804303) 09.09.2010, J.A. Turner Det. B. Rowson

**Outer Hebrides** (VC110): *Arion rufus* seg. Isle of Lewis (NB476398), 30.07.2002, Chris Du Feu, Det. B. Rowson,

**Channel Islands** (VC113): *Arion rufus* seg. Groznez, St. Ouen, (WV554561), 30.08.2002, Chris Du Feu, Det. B. Rowson

**West Cork** (H3): *Arion hortensis*, Schull and environs, near Ballydehob, (V928315), 02.09.2011, R. Anderson & J.A. Taylor, Det. B. Rowson

**Mid Cork** (H4): *Arion vulgaris*, Schull and environs, (W662716), 02.09.2011, R. Anderson & J.A. Taylor, Det. B. Rowson

**West Galway** (H16): *Arion hortensis*, S part of Rusheen Bay, (M251231), *Limax cinereoniger*, Lettercraffoe Lough, (M756376), 06.09.2011, B. Rowson; E part of Rusheen Bay, (M260237), 05.09.2011, R. Anderson & J.A. Taylor, Det. B. Rowson

**Roscommon** (H25): *Arion ater* seg., *A. circumscriptus* seg. W shore of Loch Ree near Lecarrow, (M997563), 07.09.2011, R. Anderson & J.A. Taylor, Det. B. Rowson

## References

- Abrehart, T.R. (2011), Reporting cycle on *Vertigo moulinsiana* at Crose Mere, Sweat Mere and Fenemere November 2011 Lot 6. Article 17 in *An ecological survey including floral and fauna observations undertaken for Natural England*. Abrehart Ecology
- Reise H., Hutchinson J.M.C., Schunack S. and Schlitt, B. (2011) *Deroceras panormitanum* and congeners from Malta and Sicily, with a redescription of the widespread pest slug as *Deroceras invadens*. *Folia Malacologia* **19** (4): 201–223.

## Some recent snail records from Southern England

Jonty Denton\*



figure 1: Moss Bladder Snail *Aplexa hypnorum*, Wey Valley.

### Moss Bladder Snail *Aplexa hypnorum* (figure 1)

This freshwater snail appears to be declining especially in south-east England, with only old records given for Surrey in Kerney (1999). However I have found five populations along the Wey valley in Surrey from a marsh beside Farnham by-pass (SU8547), Thundry Meadows (SU8944) on 30<sup>th</sup> April 2005, Lakeside, Guildford in 2008, Papercourt Marshes (TQ0356) and Chertsey Meads (TQ0666) on 1<sup>st</sup> May 2008. The species is rare in southern England and known mainly from 19<sup>th</sup> Century records, recorded twice in 1902 from Kew Lake and from Pyrford in 1909.

### Point Snail *Cochlicella acuta* New to VC12

Inland colonies are likely to be introductions and prone to fading out. However a huge colony was found at Thruxton, Hampshire (SU297458) on 18<sup>th</sup> August 2012. The site is a tip with large amounts of imported crushed inert fill (concrete /brickwork), and is famous for unusual ruderal plants. These appear to be the first records from North Hampshire (VC12).

### Girdled Snail *Hygromia cinctella*

The meteoric rise of this species continues apace:-

**West Kent (VC15)** Cuxton Pit, waste ground at edge of large chalk pit (TQ7267) 2005-2012 **New to VC15**

**North Hampshire (VC12)** Four Marks, (rural garden) (SU5150) 01.03.2010; Overton (SU5150) **New to VC12**; amenity trees beside library and at Glebe Meadow, Overton (SU5149) (rural garden) 01.03.2010.

**Surrey (VC17)** Ham Lands (TQ1672) Ham Lands (TQ1672) 23.04.2010; Brooklands Airfield, amenity planted hedge (TQ0661), 13.06.2011; Pirbright Common (hedge near cemetery) (SU9456), 19.06.2011; Farnham, suburban garden (SU8445) 24.07.2011; Nunhead Cemetery (TQ3575) 22.05.2012; Peckham, community garden (TQ347612); Camberwell (TQ327612) 12.06.2012; Hurtmore Golf Course (rural hedgerow) (SU9445) 24.09.2012

**South Essex (VC18)** North Woolwich, ruderal area (TQ437928) Sep. 2011

### Reference

Kerney M., (1999) *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*. Harley Books.

\* Dr.J. Denton, 31 Thorn Lane, Four Marks, Hants, GU34 5BX

Some molluscs are well protected from predators by their armour or behaviour. Lightly touched limpets attach themselves so quickly and firmly to rock that they are proverbially difficult to dislodge. Alarmed razorshells burrow so rapidly and deeply into sand that they become unreachable; and periwinkles withdraw into a hard shell behind a protective operculum. While most predators are unable to overcome these defences, an exceptional few individuals may become so adept that such prey can form an important part of their diet. This note records examples of individual birds with these specialist skills.

During work at colonies of breeding seabirds on small islands in sealochs and sounds on the mainland of west Scotland, I sometimes notice impressive accumulations of empty, predated molluscan shells in a small area, often recognisable as the territory of a nesting bird. In the cases below, shells were collected on each visit, counted and identified as far as possible. Shells found later in the same small area must have accumulated in the interim. At each site there was evidence that these were the prey of an individual bird (or, less likely, a pair both of which had learnt the skill).

**Limpets and herring gulls**

*Corr Eilean, Sound of Jura* (grid reference: NR6775 )

From 1999 to 2004 I paid regular visits to this island to count breeding birds. At one subcolony of 30–80 pairs of herring gulls, one nest territory regularly held dense accumulations of limpet shells. They were always in the same small area of ca 2 x 1 m, close to a nest, implying that the specialist gull used the same territory year after year. The other territories almost always held no limpets; occasionally, one or two held a very few. After 2004 no more accumulations appeared, presumably because the gull had died or moved to breed elsewhere. Those limpets that were identified were all *Patella vulgata*. In 1999 the maximum shell diameter of 184 shells (mean and standard deviation) was 46.2 +/- 6.5 mm. Figures 1 to 3 show shells with the typical slight damage caused by the bird's bill. The damage suggests that the gull removes the limpet by inserting the point of its upper mandible under the shell edge and breaks off a small fragment. This allows it to insert enough of its upper mandible to lever the limpet from the rock.



figure 1: Marks on outer surfaces of limpet shells (indicated by arrows) caused by a gull's bill. *Corr Eilean, Sound of Jura, 2<sup>nd</sup> June 2002.*



figure 2: Marks on inner surfaces of limpets (indicated by arrows) caused by a gull's bill. *Corr Eilean, Sound of Jura, 2<sup>nd</sup> June 2002.*



figure 3: Damage to edge of limpet shells (indicated by arrows) caused by a gull. *Corr Eilean, Sound of Jura, 2<sup>nd</sup> June 2002.*

The time intervals within a summer give a minimum rate of consumption of limpets (since others could have been eaten away from the nest). Herring gulls leave the breeding site in late August or September; the adults return intermittently from midwinter onwards and resume near-permanent residence from early March, so counts made between years are harder to interpret:

Date	Number of limpet shells	Limpets per day
28/07/1999	214	
22/05/2000	121	
18/07/2000	32	0.6
24/05/2001	197	
03/08/2001	135	1.9
02/06/2002	331	
04/08/2002	175	2.8
14/06/2003	257	
08/07/2003	83	3.5
21/07/2003	57	4.4
27/05/2004	128	
09/07/2004	60	1.4
07/08/2004	32	1.1
31/05/2005	0	

*Eilean Rubha an Ridire, Sound of Mull (NM7240)*

At this colony of ca 50 pairs of herring gulls, limpet shells were found on a rocky slope over an area of ca. 5 x 10 m at the edge of a herring gull territory. Again, the territories of other gulls in the colony lacked such accumulations:

Date	Number of limpet shells	Limpets per day
28/06/2002	337	
22/07/2002	110	4.6
21/08/2002	121	4.0
16/09/2002	57	2.2

Date limits were not obtained for the following single counts of large accumulations of limpet shells found within or beside the territory of a herring gull:

Locality	Date	Number of limpet shells
Dubh Sgeir, Kerrera (NM7625)	19.07.1994	504
Barnacarry Islet, Loch Feochan (NM8122)	27.06.2001	590

**Razorshells and great black-backed gulls**

Accumulations of predated razorshells comprised (a) pairs of joined valves, (b) intact left valves (c) intact right valves; and valves broken into fragments (Figure 4). The lengths of all intact valves (paired and single) were measured to the nearest mm to give mean valve length. The lengths of all fragments were measured and summed; this sum divided by (2x mean valve length) gave (d) number of fish found as shell fragments. The total number of razorshells in a sample was calculated as a + (greater of b or c) + d. All were identified as *Ensis* and, when identification to species was possible, many were thought to be *Ensis siliqua*. Tebble (1976) states “The three British species of the genus *Ensis* are very difficult to identify and it is almost impossible to segregate some shells without the soft parts”.



figure 4: : Razorshells, *Ensis*, predated by gulls (herring or great black-backed). Often, as shown, a long sliver of shell is broken off the ventral edge of a valve, and one valve of a pair is broken in two. Collected Eilean Beag, Dunstaffnage, 8<sup>th</sup> May 2000.

*Eilean Beag, Dunstaffnage, near Oban (NM8835)*

At this mixed colony, mainly ca 200 pairs of herring gulls, one territory of ca 2 x 3 m regularly held dense accumulations of predated razorshells while the others held no or, in a few cases, very small numbers (< 10 valves). The specialist was believed to be a great black-backed gull (of which one pair bred at the site) or possibly a herring gull. Counts between years do not necessarily reflect consumption as the site may have been swept by winter

storms. However the two counts in 2001 give a minimum consumption rate of 5.8 razorshells per day:

Date	Number of razorshells	Valve length, mm [mean +/- SD (n)]
06/08/1999	110	143 +/- 9 (39)
08/05/2000	48	
11/05/2001	361	
21/07/2001	412	141 +/- 12 (70)
07/05/2002	0	

Impressive numbers of predated razorshells were also found at the next two sites, in each case within a single gull territory, probably great black-backed gull but possibly herring gull (both species were breeding at each of these sites):

Date	Number of razorshells	Valve length, mm [mean +/- SD (n)]
<b>Eilean mhic Neill, Loch Moidart (NM6572)</b>		
25/05/2000	214	154 +/- 13 (130)
11/05/2001	0	
<b>Eilean a’Bhuic, Loch Fyne (NR9170)</b>		
25/07/2001	423	151 +/- 13 (109)
26/05/2002	0	

**Periwinkles and Oystercatchers**

Large accumulations of shells of edible periwinkle (*Littorina littorea*) were found at three small islets in Loch Ailort. They had been predated in a characteristic manner. Some had been opened by shearing a fragment of shell from the body whorl (a). Others had been broken into top (b) and bottom (c) parts, probably by more violent action than during the shearing. Numbers of predated winkles were obtained by counting a, b and c and taking the larger of (a+b) or (a+c). Figure 5 shows such shell remains.

*Numbers of predated shells of edible periwinkle shells at Eilean Dubh, Loch Ailort (NM7481)*

Date	Number of <i>L. littorea</i>	Comments
<b>ISLET 1</b>		
25.05.1996	174	Accumulation discovered
1997–99	0	Site not in use
25.05.2000	49	
May–Jul 2001	0	Site not in use
22.05.2002	330	
07.05.2003	336	No more counts made
<b>ISLET 2</b>		
09.07.2000	353	Accumulation discovered
13.07.2001	288	
22.05.2002	241	
19.05.2003	365*	
16.07.2003	286*	4.9 per day
<b>ISLET 3</b>		
31.05.2002	363 (+ 12 <i>L. obtusata</i> agg.)	Accumulation discovered.
09.08.2002	197 (+ 2 <i>L. obtusata</i> agg.)	5.1 per day
16.07.2003	567	

\* Included a significant proportion of the smaller *Littorina obtusata* agg.

These are rocky shores and the shell collections were always near rocks with small fissures that might have been used to secure the shell when opening it. Unfortunately, despite efforts, the predator was never seen in action. It was suggested that it might have been a Song Thrush, since a periwinkle-eating race of this species occurs in the Outer Hebrides. However, during thirty years of annual visits I have never seen a song thrush on these islets or in this habitat. By contrast, oystercatchers are common breeding residents at this site and in sealochs generally. Some oystercatchers are known to specialise on certain prey, including *Littorina* (Cramp *et al.* 1983). This predator was therefore identified, provisionally but with some confidence, as oystercatcher.



figure 5. Edible periwinkle shells left by oystercatcher. Rows, from bottom, show: shells with fragment missing from body whorl; fragments sheared from body whorl; shell bases; shell tops (see text). Collected at Eilean Dubh, Loch Ailort, 31<sup>st</sup> May 2002.

On 21 August 2002 on the shore of Mull (NM7138) I found a similar accumulation of 242 shells of dog whelk *Nucella lapillus*, and more (uncounted) of this species on 16 May

2003 at Inn Island (NM8946) off Lismore. At both sites the predator was believed to be oystercatcher, since the shells had been opened in exactly the same way as the periwinkles. Both sites lacked song thrushes or their habitat, but every year each held several breeding pairs of oystercatchers.

### General

Many details surrounding these specialist predators of molluscs are unknown. Is only one bird involved at each site, or a pair of which one has taught the other? Is the ability inherited or taught to offspring? Some of the bird species need to be confirmed, particularly the razorshells specialists. Each of the three procedures – detaching limpets, catching razorshells, and shearing the hard shells of periwinkles – arouses our admiration, curiosity and perhaps envy. Details of how razorshells are caught or how periwinkle shells are sheared are not at all clear.

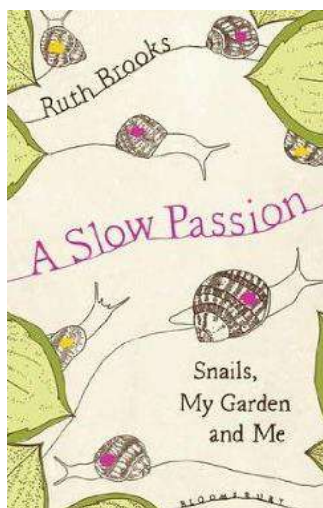
Gray (1871) described herring gulls in west Scotland repeatedly dropping shelled prey, such as mussels and whelks, onto hard ground to open them. Some herring gulls in the area still do this (specialist individuals?) as do hooded crows. In the intervening 142 years no other gull species has learnt the habit. I have seen pairs or groups of hooded crows repeatedly dropping mussels (*Mytilus edulis*) onto a short stretch of minor road by Loch Creran (NM980442). The broken and crushed mussel shells on the road are sometimes so numerous and extensive that I have not yet summoned up the will to collect or count them...

### References

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- Gray, R. (1871). *The Birds of West Scotland including the Outer Hebrides.* Murray, Glasgow.
- Tebble, N. (1976). *British Bivalve Shells.* 2<sup>nd</sup> edition. British Museum, H M S O (Edinburgh).

## **Book:** A Slow Passion – snails, my garden and me by Ruth Brooks

Bloomsbury Publishing, London, 2013. ISBN 13: 9781408826584. 242pp. Price c. £9.00 – £13.00



Any book that helps to bring the fascination of molluscs to a wider public and encourages people to look more closely at the humble wildlife on their own doorstep is something positive and special and this is what Ruth Brook's account is, but it also includes many elements of an autobiography.

Ruth is a keen gardener who came to take a deeper interest in the snails that were intent upon demolishing her

prized seedlings. She began to ask questions about these creatures and this eventually culminated in her winning the BBC Radio 4 Material World programme's UK amateur scientist of the year award. Her simple question was 'do snails have a homing instinct?' This book tells the story of her discoveries and frustrations along the way and is full of gentle humour and anecdote; *Mollusc World* and the Conchological Society even get a mention!

The book is delicately illustrated with line drawings. One or two errors have crept in, such as *Truncatellina claustralis* featuring in a group of illustrations of 'British Snails'; but this book is not an identification guide, it's a inspiration.

*Peter Topley*

## A shelling trip to the north of Britain

John Llewellyn-Jones

On the 11<sup>th</sup> of May this year Celia and myself decided to leave our house to the carpet layers and painters and drive northwards, visiting friends on the way. We visited Rob Law at Chatsworth and enjoyed a coffee and getting up to date with shell finds etc. We then drove onto Blackpool and spent two lovely days collecting shells on its famous beach (figure 1). We collected a surprising number of species including *Euspira* [previously *Natica*] *catena* and its sand grain egg case (figure 2).



figure 1: Blackpool beach.



figure 2: *Euspira catena* and egg case.

We then drove northwards to Gateshead- on- Fleet in Scotland and stayed with Jim and Pauline Logan. We spent two wonderful days visiting various beaches including that at Sandhead, Mull of Galloway, where we found a large number of the beautiful amber- coloured shells of *Scaphander lignarius*, the canoe shell (figure 3). This fascinating mollusc burrows its way through the sand and muddy sand feeding on bivalves, gastropods, scaphopods, polychaete worms and echinoderms which are swallowed whole. It then crushes the shells between its three powerful calcareous gizzard plates (figure 4) and digests the contents.



figure 3: *Scaphander lignarius* found on Sandhead beach, Mull of Galloway, Scotland.



figure 4: *Scaphander lignarius* gizzard plates.

The next day we visited a modern scallop midden containing vast numbers of *Pecten maximus* and *Aequipecten* [previously *Chlamys*] *opercularis* (figure 5). At one time these scallop shells were used to stabilise farm and forest tracks and were added to lochs and lakes to reduce the acidity but recently the EU said that they had to be sterilised before being used. This was far too expensive for the fishery and they are simply dumped; so we collected some of the highly coloured valves (figure 6) for ourselves.



figure 5: Modern midden of *P. maximus* and *A. opercularis*.



figure 6: Colour variation in *A. opercularis*.

After leaving Jim and Pauline we crossed the country to Berwick-upon-Tweed and on Bamburgh beach we found a number of valves of *Palliolium* [*Chlamys*] *tigerinum*. In the town we visited the Grace Darling museum (for article on Grace Darling see *Mollusc World* **11**, July 2006) and it was as interesting as I thought it would be. On our way home we stayed with Peter Dance, who was in good spirits and took us out to his daughter-in-laws Thai restaurant in Carlisle where we were treated like royalty with lovely food and service (figure 7).



figure 7: Sumuntha (Nong) and Peter Dance in her Thai restaurant, Carlisle.

A really enjoyable two weeks. I would like to thank all those friends mentioned for putting us up and putting up with us, as well as John Fisher for his specimen of the gizzard plates of *Scaphander lignarius*.

#### ADVERTISEMENT

### **Announcement of forthcoming publication** **Systematics and palaeobiogeography of the gastropods** **of the middle Miocene (Serravallian) Karaman Basin of** **Turkey** by Bernard M. Landau, Mathias Harzhauser, Yeşim İslamoğlu & Carlos Marques da Silva.

The Dutch/English periodical *CAINOZOIC RESEARCH*, published by the Tertiary Research Group (TRG, UK) and the Werkgroep voor Tertiaire en Kwartaire Geologie (WTKG, NL) intends to publish a weighty volume in December 2013 on the occasion of WTKG's 50th anniversary. The issue will comprise some 500 pages, inclusive of 81 full page plates and will contain a single scientific paper (titled as above).

After an extensive introduction with geographical and stratigraphical information, 435 species, 41 of which are new, and two new genera, are described. This is the first attempt in the European Miocene literature to illustrate both teleoconch and protoconch of all species found in the assemblage, whenever possible. Of the 81 plates 23 are SEM images and four plates show colour patterns enhanced with UV light. A full synonymy, distribution data and discussion is given for each species.

Members of TRG and WTKG receive this volume as a regular issue of the periodical. Non-members have the opportunity to order a copy of this important paper at a reduced price by sending an email **before October 15, 2013**, to WTKG's treasurer Martin C. Cadée, at [mc.cadee@casema.nl](mailto:mc.cadee@casema.nl), stating in the subject line 'Landau et al., Turkey paper'.

The price for this issue after publication will be around 50-55 euros (postage excluded), but when ordered in time a **reduction of 20%** on the final price will be granted. Payment will be accepted through bank transfer or PayPal. Payment instructions will be provided after receipt of your order.

TRG and WTKG councils

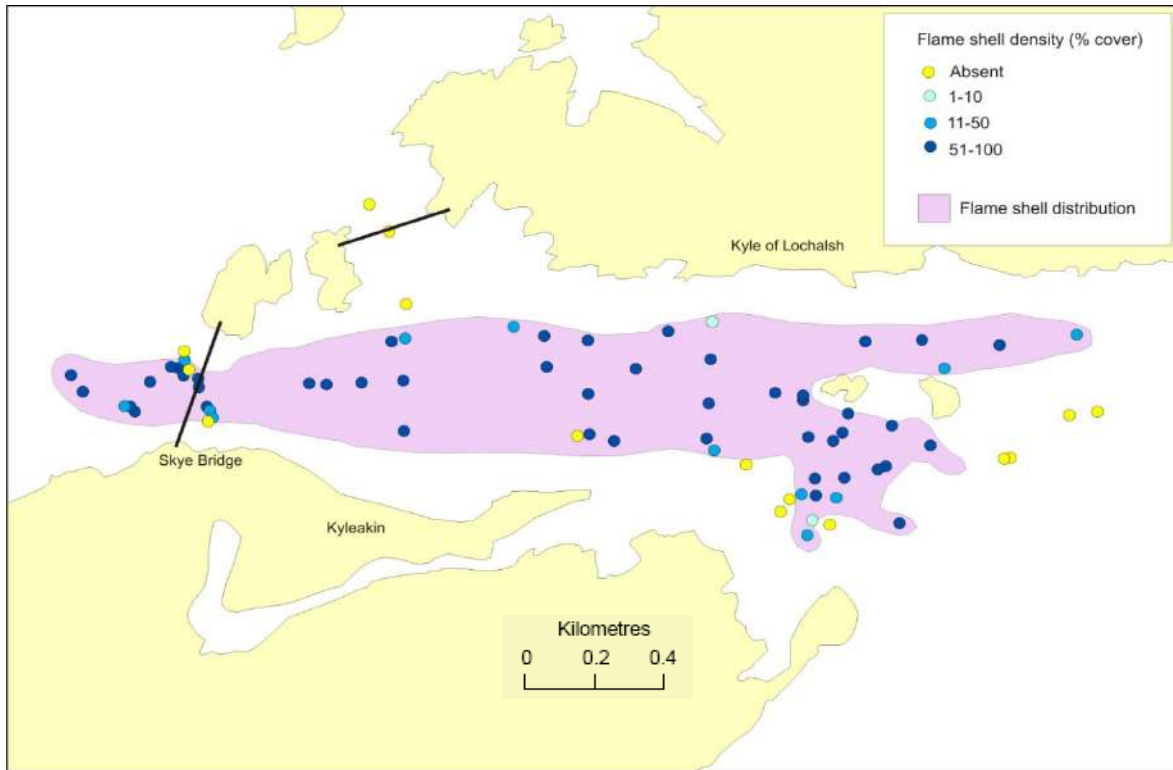
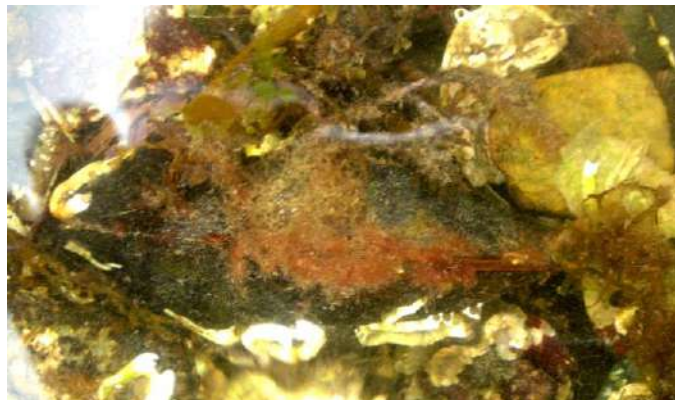


figure 1: Estimated distribution of flame shell reef in Kyle Akin

In August 2012 Heriot-Watt University were conducting sea bed surveys on the west coast of Scotland on behalf of Marine Scotland. The purpose of these surveys was to validate the presence and describe the condition of certain habitats of conservation importance. One such habitat type is formed by living reefs consisting of aggregations of certain animals which modify the environment to create a rich and diverse community of marine creatures. While diving in Kyle Akin near the Skye Bridge we found a reef formed by the flame shell (*Limaria hians*) which proved to be the most extensive reef of this type known in the UK (figure 1). The reef extends for 75 hectares covering the majority of the sea bed in the area and in places it is interspersed with another molluscan living reef formed by the Horse Mussel (*Modiolus modiolus*) (figure 2).



Mollusc World 32

figure 2: Living *Modiolus modiolus*, Skye (photo: Peter Topley)

Flame shells are small (~2 – 3 cm) bivalves with fine raised ribs on the outer surface (figure 3). They look rather like asymmetrical scallops and formerly were included within the same super-family as the scallops. Like scallops they are capable of swimming for short distances by clapping the two valves together and jetting water out of the mantle cavity. But this swimming activity is normally only shown when disturbed or threatened by predation.



figure 3: Shells of *Limaria hians*.

The animals typically live enclosed within a 'nest' of byssus threads which are secreted to bind together gravel, pebbles and shell fragments in a meshwork of tough hair-like threads. When the flame shells are abundant the nests can form almost continuous carpet several centimetres thick over the sea bed.

Within this nest material the animals live in shared galleries or tunnels and there may be several hundred individuals within each square metre of nest material in favourable conditions.

As well as providing attachment to the sea bed the nests are important for protection of the animals from predators. Unlike many bivalves the flame shells have a permanent 'gape' meaning that the two valves cannot close tightly together to protect the soft tissues within. In life a dense fringe of bright red or orange tentacles (pallial tentacles) emerges from between the two valves. It is this that gives them their common name of 'flame shells' and some authors regard them as amongst the most beautiful of British bivalve molluscs (figure 4). In addition to the protection of the nest it has been reported that the flame shells produce distasteful or noxious mucus that provides them with further protection from predation. However, during our diving work on flame shell reefs we have regularly encountered crabs (especially velvet swimming crabs) feeding on the flame shells so clearly this adaptation does not fully protect them from predators.

Flame shell reefs are most well developed in areas where the tidal flow of the sea is accelerated (e.g. channels between islands or sea loch 'narrows'). The site of the Loch Alsh reef (Kyle Akin) is entirely typical in this respect. It is a

comparatively shallow and narrow channel linking the deep open water of the Outer Sound of Raasay with Loch Alsh and other deep connected sea lochs. With the rise or fall of the tide large volumes of water are forced through this constriction and current speeds can reach several knots. Flame shells find these conditions favourable because like most bivalves they are filter feeders and use highly adapted sieve-like gills to extract food particles from water passing through the mantle cavity. Rapid water currents typically provide the best living conditions for filter feeders by ensuring a continuous flow of nutrient rich water and by reducing the amount of energy the animal must expend in pumping the water through the gills.

Although of obvious interest in their own right the wider importance of the flame shells is in the consequences of their nest structures for other marine animals. Where nests form a continuous reef-like cover they have the effect of creating a stable and structurally complex habitat on the sea bed. Areas of loose sand and gravel are bound together by their byssus threads creating a stable surface that can then be colonised by attached animals like soft corals and sea fans which also thrive in fast currents. The nests create an irregular surface with raised areas and cavities providing a range of sub-habitats each colonised by different groups of species. The net result is that the biodiversity of species supported by a flame shell reef is considerably higher than would be found in the same area if the flame shells were not present. Gauging the magnitude of this reef effect on biodiversity is not straightforward but the reefs can support hundreds of species



figure 4: Live flame shells extracted from their nests and placed on the sea bed showing the bright pallial tentacles (Photo: G. Saunders)



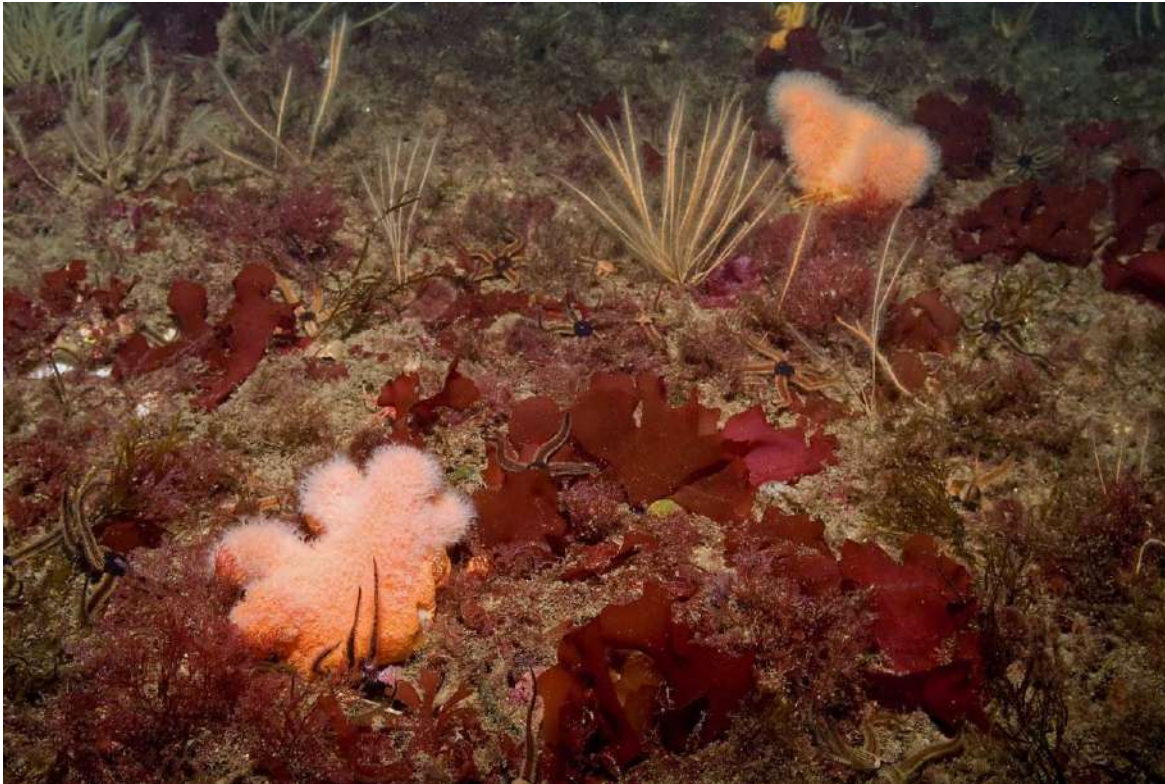


figure 5: Sea bed habitat formed by flame shell reef supporting soft corals, sea fans, brittle stars and a variety of seaweed species.

(Photo: G. Saunders)

and comparative studies indicate the number of species on flame shell reefs is at least double that of areas of adjacent sea bed (figure 5).

It is this high biodiversity that gives flame shell reefs their high conservation value. If areas of sea bed with flame shell reefs can be protected this will protect a greater range of species than would be the case for areas of sea bed lacking reefs. The main obvious threat to flame shells is fishing using equipment like dredges or beam-trawls that are designed to be towed along the sea bed. Such equipment tears up the flame shell nests crushing and displacing the animals leaving them vulnerable to predation. Due to limited information on the sea bed it is not possible to accurately gauge the overall impact on flame shell reefs around the UK but at some sites former reefs are now reduced to areas of comparatively barren gravel littered with their dead shells.

It is clear that the reefs are susceptible to damage from any fishing equipment dragged over the sea bed but the significance of this will depend on how quickly the reef will grow back to repair the damage. Other mollusc reefs like those formed by the horse mussel are known to be slow to regenerate and this is related to the slow reproduction and long life (several decades) of the animals. Flame shells on the other hand are relatively short lived (just a few years) and are likely to reproduce more rapidly. This implies a much better potential for regeneration of damaged areas of reef. However, experimental work at Heriot-Watt University monitoring the regeneration of damaged reef areas does not support this conclusion and instead indicates that the recovery from a scallop dredging may take decades or centuries.

We are currently researching methods for accelerating the recovery of damaged reefs by artificially modifying conditions on the sea bed to encourage the settlement of the planktonic larvae of the flame shells and hence improve the development of the reefs. But much remains uncertain; one key question concerns the natural persistence of flame shell reefs. Some other types of living reef are known to have existed at certain locations for decades or centuries but this information has not been established for flame shells. It is possible that flame shell reefs are relatively transient features that develop rapidly over a few years when conditions are favourable and then revert back to gravel sea bed over relatively short time periods.

Regardless of such questions it is very encouraging to find such an extensive and well-developed flame shell reef in Kyle Akin. To put this in context note that most of the known reefs are fairly limited in extent (just a few hectares) and the largest previously known (and studied by ourselves over several years) was found to be reduced in extent to less than 10% of its former area by 2011. Although not firmly established it seems that the damage to this reef was a consequence of intensive creel fishing for crabs in the area. Possibly this is why the Kyle Akin reef is so well developed. It is located in a busy shipping channel and consequently fishing activity is limited due to the obvious risk of collisions. So counter intuitively, it may be the busy shipping activity in this area that has provided the conditions for an extensive, rich and diverse marine community to thrive.

\*Dr Dan Harries, Heriot-Watt University, Edinburgh.

## The snails of St Sebald

Adrian and Barbara Norris

The shrine of St Sebald is considered to be one of the masterpieces of the German Renaissance. It is situated in the church of St Sebaldus, one of the oldest and most important churches in Nuremberg in Germany. According to legend, St Sebald, the patron saint of Nuremberg, was an 8<sup>th</sup> century hermit and missionary. The relics of the saint were placed in the new choir of the church in 1397 in an impressive silver coffin and, after formal canonisation of the saint in 1425, a splendid Late Gothic bronze tomb was constructed between 1508 and 1519 by Peter Vischer the Elder and his sons.

The complex tomb architecture incorporates a mixture of both religious and pagan elements. The bronze shrine is supported at its base by 12 bronze snails of four different types. Gerhard Weilandt (2007) describes the shrine as 'a paean to virtue, arranged in anagogical ascent' with the 'base matter of the world' being represented by the snails that serve as supports. Weilandt also describes the shrine as 'an extended visual demonstration of the conquest of vice by virtue', as the design reflects the elements of a poem composed c.1515 and dedicated to the sons of the sculptor Peter Vischer, which is known as the '*Historia Herculis*' and has Hercules cast as a pagan analogue to St Sebald.

The photographs show the shrine of St Sebald and two of the snail supports. It can be seen that, in general, the sculptor did have a good eye for molluscan anatomy, even if some of the shell structures are based more on the imagination than actual observation.



Photographs by courtesy of Ms Liz Evans.

### Reference:

Review by Jacqueline Jung of:

Weilandt, G. (2007) *Sebalduskirche in Nurnburg. Bild und Gesellschaft im Zeitalter der Gotik und Renaissance* (= *Studien zur internationalen Architektur und Kunstgeschichte*; 47) Petersberg: Michael Imhof Verlag.

ISBN-13: 978-3-86568-125-6, 782

<http://www.arthist.net/new.php?pn=reviews&id=359>

**Further information** (in German):

<http://www.sebalduskirche.de/index.php?id=132>



figure 1: Mouth of the Matutinao River from the road bridge.  
(photo: Linda Symonds)

In 1994 Klaus Bandel and Frank Riedel carried out a detailed survey of the Matutinao River on Cebu Island in the Central Philippines and recorded the distribution of the gastropod species living there (Bandel and Riedel 1998, Bandel 2000). At the time pollution was described as low and a rich variety of aquatic life was present including 26 species of gastropods. Such pollution as there was apparently being due mainly to local people washing their clothes in the river.

During a holiday in the Philippines, in November 2012, I visited the Matutinao River with the intention of seeing whether it was still in good condition. Many of the rivers which I investigated in Cebu flowed through populated areas and were heavily polluted and devoid of freshwater molluscs. The Matutinao River, however, is still relatively clean even though its mouth is next to Matutinao village and it is still being used for laundry (figure 2). The Kawasan Falls (figure 3), just over 1.5 km upstream, are a popular tourist attraction and the river flows through one of the few remaining patches of rainforest on Cebu which adds to its appeal. The path to the falls provides easy access to the freshwater reaches of the river. The river cuts through limestone and is strongly alkaline, some of the gastropod shells being more or less covered with a deposit of calcium carbonate formed, according to Bandel and Riedel, by the activity of cyanobacteria.



figure 2: Villager washing clothes in the river.  
(photo: Linda Symonds)



figure 3. Kawasan Falls, Matutinao River. (photo: Linda Symonds)

I failed to find all the species recorded by Bandel and Riedel which is perhaps not surprising as they clearly spent considerable time sampling the river whereas my time at each site was very limited. On the other hand I did find some species that were not listed by them and I suspect that this may be due, at least in part, to problems with the taxonomy of the Neritidae resulting in differing opinions as to the identity of some of the taxa present, rather than to any significant change in the malacofauna during the intervening years. For instance I did not see any *Clithon oualaniensis* around the mouth of the river, despite there appearing to be suitable habitats and the species being listed by Bandel and Riedel. On the other hand, *C. sowerbiana*, not mentioned by them, was quite common on stones beside the river mouth at low tide.

Where the Matutinao river crosses the beach *C. luctuosa* was living on the pebbles with a few *Nerita histrio*, a marine species tolerant of brackish water. Further into the estuary below the road bridge (figure 1) the river banks are muddy and clothed with *Nypa fruticans* palms and other vegetation. I found this to be the richest section of the river in terms of the number of nerite species present with *Neritina (Vittina) coromandeliana* and *N. (V.) cumingiana* on *Nypa* raphes and *N. (V.) waigiensis*, apparently considered by Lozouet and Plaziat (2008 pl. 16 fig. 8) to be a colour form of *N. coromandeliana*, crawling on mud and decaying vegetation, all of them above low water level. *Clithon corona*, *C. cf rarispina* and what may be *C. diadema* were on stones, mostly below water, where I also found one specimen of *C. leachii*. This species is usually smooth or with one or two short spines but this example was unusually spiny (figure 5h). Only later did I find that I had inadvertently acquired a specimen (about 3 mm in length) of *Neritina (Neripteron) panayana*, which must have been attached to a larger nerite, its shell covered with calcium carbonate.

In freshwater above the estuary *C. corona* was initially common, becoming less so further upstream. Just below the rapids, about 1 km inland, large specimens occurred (figure 5i) but I did not find the species above this point. In the rapids (figure 4), large *Septaria porcellana* were clinging to boulders, all with eroded apices. For some distance above the rapids there did not appear to be any nerites until, on the



figure 4. Rapids, Matutinao River. (photo: Linda Symonds)

upstream side of the power station outlet, about 1.3 km from the mouth, I encountered *N. (N.) asperulata*, a species which I had not found elsewhere in the river in either juvenile or adult form. Most tropical nerite species have a planktotrophic veliger larval stage; in the case of the freshwater species the tiny veligers emerge in large numbers from egg cases to be swept downstream and out to sea. They live in the plankton, swimming with the aid of a quadrilobed velum and feeding on algal cells (Bandel 2001), for a period which probably varies according to the species but is likely to be a minimum of several weeks, during which the larval shell is formed. After metamorphosis they settle as juveniles in river mouths before making their way upstream to eventually reach freshwater. For this reason juveniles are usually found in the lowest sections of the river becoming progressively more mature upstream until, well above tidal influence, only adults are found. Bandel and Riedel noted that juveniles of freshwater species were common in the mouth of the Matutinao and the lowest freshwater section and were then absent with only adults present, as would be expected, but higher up, near the power station, juveniles unexpectedly occurred again. This led them to postulate that some veligers were actually completing their larval stage in freshwater rather than being swept out to sea. If this theory is correct it may also mean that the young of *N. asperulata* have their larval stage in the immediate vicinity of the adults, instead of at sea, which would account for the sudden appearance of this species further inland than any other nerite. I was unable to find nerites above the power station section. Bandel and Riedel recorded *Brotia* sp. and *Tarebia* sp. from the deep pools below the Kawasan Falls but they did not find any nerites either and it appears that the power station section marks the upper limit of nerite penetration.

I was pleased to find that the Matutinao River is still rich in aquatic life. Shortly before my visit, unauthorised vendors, who had established themselves below the falls, had been moved on and the site cleared of rubbish. It was apparent that the local authority intends to maintain the area as a pristine tourist attraction which bodes well for the future.

## References

Bandel, K. (2001) The history of *Theodoxus* and *Neritina* connected with description and systematic evaluation of related Neritimorpha (Gastropoda). *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, **85**: 65–164

Bandel, K. and Riedel, F. (1998) Ecological zonation of gastropods in the Matutinao River (Cebu, Philippines), with focus on their life cycles. *Annales de Limnologie*, **34**: 171–191

Lozouet, P. and Plaziat, J-C. (2008) *Mangrove Environments and Molluscs Abatan River, Bohol and Panglao Islands, Central Philippines*. ConchBooks, Hackenheim.

figure 5 (right):

Nerites from the Matutinao River (not to scale).

- a. *Nerita histrio* Linné, 1758. Height 18 mm.
- b. *Neritina (Vittina) coromandeliana* Sowerby, 1836. Height 18 mm.
- c. *Neritina (Vittina) cumingiana* (Récluz, 1842). Height 21 mm.
- d. *Neritina (Vittina) waigiensis* (Lesson, 1831). Height 16.5 mm.
- e. *Neritina (Neripteron) asperulata* (Récluz, 1843). Height 21.5 mm.
- f. *Neritina (Neripteron) panayana* (Récluz, 1843). Height 3 mm.
- g. *Clithon luctuosa* (Récluz, 1841). Height 5 mm.
- h. *Clithon leachii* (Récluz, 1841). Height 17 mm.
- i. *Clithon corona* (Linné, 1758). Height 22 mm.
- j. *Clithon cf rarispina* (Mousson, 1849). Height 10.5 mm.
- k. *Clithon sowerbiana* (Récluz, 1843). Height 11.5 mm.
- l. *Clithon cf diadema* (Récluz, 1841). Height 11 mm.
- m. *Septaria porcellana* (Linné, 1758). Length 25 mm.



## British Shell Collectors' Club

**26<sup>th</sup> October 2013**

Shell Show

An opportunity to meet others interested in shells and to seek advice from experienced collectors. Members are encouraged to create display tables for the prize competitions for categories such as One Species, British Marine, Caribbean or in specialities such as shell art or shell postage stamps. Displays can feature marine, land and freshwater species. Five major prizes are awarded.

Theydon Bois Community Centre, Coppice Row, Theydon Bois, CM16 7ER

**7<sup>th</sup> September 2013**

Chatsworth Shell Fayre

Cavendish Hall, Chatsworth House, Derbyshire DE45 1PJ

Both events will be open from 9am to 4pm, admission free.

For further information and other events see:

[www.britishshellclub.org.uk/](http://www.britishshellclub.org.uk/)



a



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## Field meeting: South Pembrokeshire, 16<sup>th</sup> – 20<sup>th</sup> September 2012 *Celia Pain*

There were a variable number of participants who attended this field meeting each day: we had a new member, Ruth Brooks, on the first day and two members of the Pembroke Dock Environmental Team on our last day. We had a very good turnout for our marine field meeting: Ron Boyce, Ruth Brooks, Ann Bunker, Rosemary Hill, John Llewellyn-Jones, Jim and Pauline Logan, Sonya and Terry O'Connor, Celia Pain, Lily Pauls, Bas and Rosemary Payne and Peter Topley.

### Sunday 16<sup>th</sup> September, Giltar Point



figure 1: Panorama of Penally beach with Giltar Point on the right.

(photo: Peter Topley)

On our first day we had the excitement of trying to avoid the Ironman Wales Triathlon when all the roads around Tenby were closed. Ruth walked three miles along the beach to reach the meeting point, at Penally Railway Station and back again afterwards, well done Ruth!

Jan Light kindly took charge of the party to explore Giltar Point (figure 1), cliff, boulders and caves (figure 2). She was delighted to find living examples of the lagoon snail (*Paludinella littorina*) with a 2mm shell (figure 3) and the small air-breathing marine pulmonate *Otina ovata*; all our members were eager to find these rare creatures in their natural habitat and to learn how to recognise them.



figure 2: Party looking for crevice fauna in caves at Giltar Point.

(photo: Peter Topley)



figure 3: *Paludinella littorina* in cave habitat, Giltar Point.

(photo: Ann Bunker)

Nick, Bas and others tackled the sandy mud with sieves (figure 4) and found live specimens of the surf clam (*Spisula solida*), the thin tellin (*Angulus tenuis*) and the pullet carpet

shell (*Venerupis senegalensis*). Bas took large amounts of shell sand (figures 5 and 6) home and covered the floors of their Georgian villa with newspapers and drying heaps of shell sand. The rest of us inspected the algal cover on the lower beach where live European cowries (*Trivia monacha*) and oyster drill (*Ocenebra erinacea*) were found.



figure 4: Sieving for bivalves in muddy sand, near Giltar Point.

(photo: Peter Topley)



figure 5: Area of shell sand, Penally beach. (photo: Peter Topley)



figure 6: *Mangelia attenuata* (height 12 mm) from shell sand, Penally beach.

(photo: Peter Topley)

On returning from the shore to the car park across the dunes, large numbers of land snails were observed on the vegetation, mostly comprising the garden snail (*Cornu aspersum*) the pointed snail (*Cochlicella acuta*) (figure 7),

and the sandhill snail (*Theba pisana*) (figure 8). The latter species, an introduction from the Mediterranean, was first recorded from this area in the early 19<sup>th</sup> century but has since been spread by man to suitable habitats in many parts of the world.



figure 7: *Cochlicella acuta* on fencing in dunes, Penally.  
(photo: John Llewellyn Jones)



figure 8: *Theba pisana*, on plant stems in dunes, Penally.  
(photo: Ron Boyce)



figure 9: Manorbier shore with habitat now filled with sand.  
(photo: John Llewellyn Jones)

### Monday 17<sup>th</sup> September, Manorbier

This charming Old Red Sandstone bay used to have excellent tide pools when John and I last visited in September 2005, but they had been covered by sand (figure 9). This restricted the number of species that we could find. We took some shell sand and weed samples for washing; the biodiversity was about the same but numbers were very low. We found a Portuguese man o' war and a *Vellela* on the high tide line but sadly no violet sea snails (*Janthina* spp.) with which they are often associated. (figures 10 – 15)



figure 10: Lunch at Manorbier. Left to right: Nick Light, Bas Payne, Celia Pain, Sonia and Terry O'Conner, Jan Light.  
(photo: John Llewellyn Jones)



figure 11: John and Bas in discussion, lower shore, Manorbier.  
(photo: Peter Topley)



figure 12: Blue rayed limpet *Halcyon pellucidum* var *laevis* (18mm) in kelp holdfast and showing internal blue rays, Manorbier.  
(photos: Peter Topley)



figure 13: Pneumatophore of a Portuguese man o' war colony, (*Physalia physallis*), Manorbier.  
(Photo: Rosemary Hill)



figure 14: Chitons, probably *Lepidochitona cinerea*, (length 17–19 mm) Manorbier, showing examples of the variety of forms present. (photos: Rosemary Hill and John Llewellyn Jones)



figure 15: *Acanthochitona crinita*, (length c. 20 mm), Manorbier. (photo: Ron Boyce)

### Tuesday 18<sup>th</sup> September, Freshwater West

This was the emptiest beach which we have ever visited, not even live cockles ! The Old Red Sandstone (ORS) reef below the car park yielded live algal species and the most exciting find of the day was an old shell of *Irus irus* (L., 1758) in an ORS boulder; Jim was pretty pleased with that! We were joined by Ann Bunker and Lily Pauls, Environmental protection officers from Milford Haven Oil Refineries (figure 16). John and Bas were looking for *Patella* limpets on the rocks at the northern end of the beach in order to see if they could identify the three species without taking them off their rock (figure 17; see also Steve Wilkinson's guide on the Conchological Society's web site: <http://www.conchsoc.org/node/5869>). We had a celebratory meal in the Stackpole Inn that evening where lots of delicious things were tried: Cawl (Welsh lamb stew), Welsh sirloin steak, and local shell on prawns (figure 18).



figure 16: Ann Bunker and Lily Pauls with Jan Light and Terry O'Connor, Freshwater West. (photo: Peter Topley)



figure 17: *Patella vulgata* (above) and *Patella ulyssiponensis* (below) on rocks, Freshwater West. (photos: Peter Topley)



figure 18: A celebratory meal at Stackpole Inn. (photo: Jim Logan)

### Wednesday 19<sup>th</sup> September, Monkstone Point.

The party split because there was a long walk down to the beach where Jan, Nick, Bas, Sonya and Terry went collecting, they found live *Turritella communis*, shells of *Acteon tornatalis* and Chinaman's hat, *Calyptrea chinensis*.



### Wednesday 19<sup>th</sup> September Angle Bay and Angle West.

Peter, Ron, Rosemary, Jim, Pauline, Celia and John, travelled west to the south side of Milford Haven. West Angle Bay (figures 19 and 20) is a narrow sandy bay with a few stranded shells, and the standard flora and fauna on the rocks. Angle West was better, a large circular bay with old salt marsh, thick mud and an estuarine fauna and flora. Weed samples were taken. We were interested to find *Hydrobia neglecta* (figure 21) and *Brachystomia angusta*.



figure 19: West Angle Bay, estuarine habitat. (photo: John Llewellyn-Jones)



figure 20: Examining mussel beds for *Brachystomia* associated with *Mytilus* byssus threads, Angle West. (photo: Peter Topley)



figure 21: *Hydrobia neglecta* (height c. 3 mm) from Angle West. (photo: Peter Topley)

### Thursday 20<sup>th</sup> September: Pendine Beach.

Peter, Ron and Rosemary and John visited the west end of Pendine and made a collection of drift shells from the sandy beach and lower cliff and boulders. John was fascinated to find seagulls regurgitating *Donax* shells (figure 22), which they had eaten whole. The gizzard grinds them up immediately, some regurgitated shell were almost whole. There were also very large colonies of multicoloured dog whelks, *Nucella lapillus*, present on the cliffs (figure 23).



figure 22: *Donax* shells regurgitated by gulls, Pendine. (photo: John Llewellyn-Jones)



figure 23: *Nucella lapillus*, Pendine. (photo: John Llewellyn-Jones)

### Friday 21<sup>st</sup> September: Saundersfoot.

Jan, Nick, Bas, Sonya and Terry went here. This was one of the better beaches; biodiversity was good and live numbers of molluscs reasonable. Earlier in the week at Monkstone Point Jan *et al.* had spotted the characteristic irregular burrow holes of the sea potato *Echinocardium cordatum* and a few empty tests. Sea potatoes live in the sands near low water mark and below, and the commensal bivalve *Tellimya ferruginosa* may be found with it. The trick is to dig a substantial spit of sand and ease it up gently, and with luck the sand 'breaks' around the animal. To find the commensal bivalve that lives with *Echinocardium* you need to sieve a substantial quantity of the surrounding sands over a 0.5 mm mesh (a 1 mm mesh will only retain adult specimens). The residues from sieving were set aside and sorted later. Bas retrieved around 30 sea potatoes, which were carefully replaced in the shallow depression in the sand from which they had been taken, after which the animals burrowed rapidly. They had only two casualties! When the tide began to rise they went back to the steps leading to the car park. Along the way they picked up some stranded moribund specimens of interesting species including *Polinices fusca*: a first for Bas and Jan.

So, why is the biomass and biodiversity generally so reduced; all of these beaches were laden with shells 40 years ago? This is not a local phenomenon, it is happening all across the country. Friends who have been collecting along the south coast of England also tell me so. The caves where the microscopic west country species of *Paludinella littorina* and *Otina ovata* live do not seem to be affected. Let us hope that this remains the case in the future.

In a previous issue of *Mollusc World* (Goodwin, 2012), I gave a biographical sketch of J. Wilfrid Jackson, mainly relating to his conchological work. To follow this up, I have produced some extracts from the correspondence that forms part of the Jackson Archive at Buxton Museum and Art Gallery. Again, this is focused on conchological matters but the opportunity to include some 'gossip' and other interesting 'asides' has proved irresistible!

Jackson produced a voluminous body of correspondence. Not all of the material has been properly sorted and catalogued but we already know that it contains over 4,000 letters and there could be more than double that number. Of course it is hard for us now to appreciate how different the world of communication was in the early part of the 20<sup>th</sup> century. With no Internet, no TV, and only a rudimentary telephone network, the flow of information was centered firmly on the letter/postcard and the daily newspaper.

With his broad range of interests (in addition to matters molluscan), JWJ knew and corresponded with many interesting and famous people including the archaeologist Sir Mortimer Wheeler, anthropologist Mary Leakey, and Sir Arthur Smith Woodward and Sir Arthur Keith (both associated with the 'Piltdown Hoax').

One 'life-long' relationship was with the Irish naturalist A.W. Stelfox (see <http://www.conchsoc.org/node/621> and <http://www.conchsoc.org/node/624>). Many years after they first met, Arthur Stelfox wrote a letter to JWJ, enclosing a draft paper for comments. The date was 14<sup>th</sup> April 1968, the paper was concerned with breeding experiments with the door snail *Marpessa* (now *Cochlodina*) *laminata*, and it was duly published in the *Journal of Conchology* in 1969. Although the conclusions hinted at in the paper – parthenogenesis and ovovivipary – turned out not to be correct, the truly remarkable thing was that the breeding colony was based on four adult white-shelled specimens from Cranham Woods, Gloucestershire that Jackson had sent to Stelfox in 1914. These he had 'bred in a small box for fifty four years'!!!

In fact, Stelfox had referred to the breeding colony in an earlier letter (in 1952 when the colony had only been going for 30 years!) and he speculated that:

'I don't suppose anybody is interested in this experiment – except ourselves?'

This prompted a 'grumpy old man' response from JWJ, as follows:

'Glad to hear about your breeding experiments. As you say it means years of hard work and I have come across students who think they know everything after a year or so at the University. I have told a few of them a thing or two about research. The good old days of shells are over and I miss the old stalwarts. There is nobody round Manchester now that cares about snails. First one and then another have died off – Fred Taylor, C.H. Moore, A.S. Kennard, Boycott, Oldham, etc., and of course my father-in-law, Robert Standen. You and I seem to be left now.'

Perhaps the future for conchology wasn't quite as bleak as Jackson portrayed but it is understandable that, in his 73<sup>rd</sup> year, with many of his old friends gone and his wife having recently died he was struggling to see the brighter side of life. Stelfox's main gripe was about Government cuts at Dublin Museum which had seen the Zoological Department replace R.F. Scharff, A.R. Nichols, J.N. Halbert, Jane Stephens (later Mrs. Scharff) & R. Southern plus several tech assistants with one assistant naturalist and

'a girl 'mannequin' as tech. assistant who cannot even write a label & who is only interested in clothes, but whose father is a close friend of the Sec. of Dept. of Education.'

Stelfox's disillusionment with the state of museums was so great that just before he died he bequeathed his collection of 90,000 parasitic Hymenoptera to the Smithsonian in Washington, D.C. where he felt they were more likely to be looked after and studied.

Another Irish friend was Robert Welch. There was some 'serious' correspondence between Welch and Jackson but much of what survives is of a light-hearted nature. My previous article illustrated a Welch photographic self-portrait and verse and figure 1 shows another Welch postcard. Two unattributed sketches in the Buxton Museum Archive (figures 2 and 3) also bear the stamp of Welch.



figure 1: Robert Welch's 'doctored' photo shows Alicia (Jackson's wife, and Standen's daughter) in fur coat and feathered headdress, Jackson with spear (9 o'clock) and Robert Standen, entering the cave (7 o'clock).

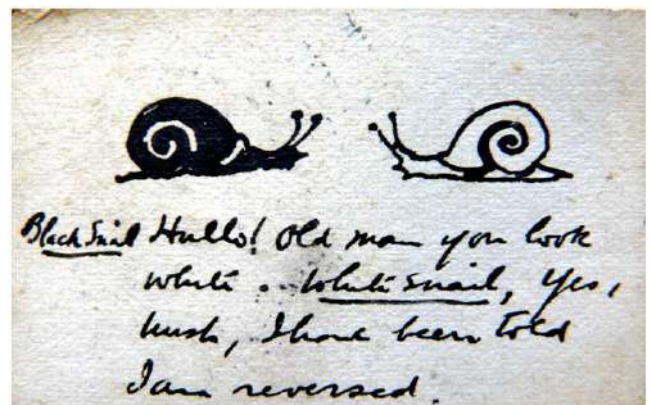


figure 2: Cartoon of 'reversed' snails, probably by the Irish naturalist and photographer, Robert Welch.



figure 3: Cartoon referencing Jackson's breeding experiments with 'reversed' snails, probably by Robert Welch.

Many letters to Jackson were from conchologists looking for something (books, shells, etc.) or seeking information – his role as Secretary of the CSGBI for nearly 30 years meant that he had established an extensive network of contacts. Often, letters might start with a bit of 'small talk', get down to business, throw in a bit of gossip, and end with best wishes to the family. The following, from John Read le Brockton Tomlin, is a fairly typical example:

'23 Boscobel Rd.  
S. Leonards/Sea

20.04.47

Dear Jackson

I have often wondered during our arctic winter how you fared. You see I know Buxton from having lived in Darley Dale & often been over for hockey matches & the like.

I have often intended to ask whether by any chance you have a *Bursa* (or *Gyrina*) *gigantea* Lam. you could sell me. I know that Stan had several.

Have you still got the *Scalarias* that Stan had from R.D. Darbishire?

And can you tell me of any one from whom I could buy a sinistral *Valvata piscinalis*? I know that several have been found at different times. I fancy that Pickering had it.

You would hear of Connolly's death – he was found dead in bed one morning at his hotel. You may know that he sold his coll'n to the B.M. several years ago, & had spent about the last 3 years incorporating it, at the B.M.'s expense!

I hope that all the Jackson family is going strong?

With many greetings,

Yours,

J.R.le B. Tomlin'

[N.B. Major Connolly (1872-1947) was a British army officer who had been President of CSGBI in 1930, and was a 'connoisseur of wine and an expert on potted meats'!! – see also [http://en.wikipedia.org/wiki/Matthew\\_William\\_Kemble\\_Connolly](http://en.wikipedia.org/wiki/Matthew_William_Kemble_Connolly). I am very grateful to Jen Gallichan for an ultimately unsuccessful search through the Tomlin Archive at the National Museum of Wales, Cardiff for specimens related to the above correspondence.]

Another writer of interest was the shell and book collector Arthur Blok who worked as a patent expert for the British Government. In the summer of 1945 he informed JWJ that for future CSGBI lists,

'after my name the queer letters O.B.E. shd. appear', adding "I hope you do not think me an immodest fellow in mentioning it: I am far too old for vanities now & I only mention it because I know you like to keep your records accurate.'

Immodest or not, he clearly knew Jackson well. Blok went on to explain that,

'for the last 3 ½ years I've been working in connection with the atomic bomb' which has 'left precious little time for anything but bed & work with blitzes & crossings of the Atlantic for light relief. Spero melivra! [a Google translation = to hope for better] But not yet I fear for the work continues.'

In fact, the O.B.E. was for outstanding scientific services during World War II, and the letter was dated 18<sup>th</sup> August 1945, just a few days after the Americans detonated the Nagasaki and Hiroshima bombs.

Among the longest standing and most prolific of JWJ's pen pals was Alfred Santer Kennard, undoubtedly one of the most colourful conchological characters of the first half of the 20<sup>th</sup> Century. Kennard, an amateur conchologist/palaeontologist, specialized in Quaternary Mollusca. Preece (1990), in a biographical study assessing his contribution to various scientific disciplines, records that despite having a full-time job he managed to average 'five articles a year for the fifty year period 1895–1945'. Anyone producing that sort of output is bound to create a few ripples, and since Kennard was passionate, opinionated and sometimes blinkered, he certainly became a polarizing figure – the 'Marmite of malacology'. However, he was also very generous, had many friends and was highly regarded scientifically, serving as President of the CSGBI, the Malacological Society and the Geologists' Association as well as receiving a number of awards including the Prestwich Medal from the Geological Society – an honour he shares with Louis & Mary Leakey, Abbe Henri Breuil, Sir Vivian Fuchs and Sir William Boyd Dawkins.

Kennard's letters are always detailed, chatty, and often contain gossip or reveal tensions in the conchological world. He loved 'having a moan' and in the first letter to Jackson (that has survived) he lists line after line of errors in J.W. Taylor's 'Monograph', and concludes, after 5 sides, that 'if I go on with T's errors I should never finish.'

Later though he records

'We have only got to live this life once & it is better to go through life with a smile & above all keep friendly with people. I am friendly enough with Taylor after all he has said & done'.

In 1913, we find Kennard

'switched off on Piltown & Eoliths. I am trying to help Keith [Sir Arthur Keith] with facts so as to prevent him putting his foot in it. Of course he is wrong and ASK is right but in these matters I am only a layman. I can check statements that reflect on geology but not anatomy.'

Kennard was no doubt 'tongue-in-cheek', but with hindsight we also know that Keith did in fact get the anatomy wrong.

Preece (1990) goes into some detail about Kennard's 'hatred of Germans and Teutonic science', and certainly ASK was not one to hide his opinions. To the above may be added

(excluding individuals) the following who, at one time or another, raised his ire:

- Scots (who, 'with one or two exceptions have no use for fossils')
- Scotland ('a god forsaken country to get about in')
- R.C. priests ('we know 'em', and 'I love not 'arf')
- brass hats ('I shall get myself disliked for pointing out [their] errors')
- degree men ('spoon fed & never learnt')
- young 'uns ('surprised at their ignorance')
- old men ('some were very careless and any locality did')
- systematists ('but little use for') and
- Botanists ('who swallowed the Swedish theories')

There were, however, some mitigating circumstances regarding his Germanic xenophobia that can best be summarized in a short list – incendiaries, bombs and robots (V1s or doodlebugs). Living in Kent during WWII was to bear the brunt of the wartime aerial bombardment and this was vividly related in his letters:

- 12.08.41: 'the last raid on London wasn't nice. They dropped 3 bombs about ¼ mile away, shook our place & killed 5.'
- 02.04.44: 'I had a narrow squeak March 25. 1000 incendiaries dropped on an area 200yds square. Two fires in front garden, one in back & a direct hit in the front bedroom smashed a washstand & broke some china & glass but was a dud.'
- 24.08.44: 'We are having a hell of a time with the Robots. Beckenham has had over 100, over 60 within a mile of this house.'
- 09.01.45: 'We are still lively. I was busy this morning ... when a terrific explosion, windows shook, doors flew open & a fanlight of mine blew out but the hinges held.'

Kennard had his peccadillos and less forgivable prejudices, but there were plenty of compliments, generosity and kind words as well. On a personal level and as someone with a keen interest in conchological history, I can only be grateful for the many hours of pleasure ASK has provided me while transcribing his letters. The world of molluscs was certainly a more interesting place because of him!

Among the other famous names of conchology in the Jackson Archive at Buxton Museum we may find Fred Taylor (see figure 4), A.E. Trueman, J. Cosmo Melvill and Nora MacMillan, right through to present day members Adrian Norris and Peter Dance – from when they were very young of course! JWJ wrote to Peter in 1966, congratulating him on his CSGBI Presidency and adding generous praise for his recently published book 'Shell Collecting'. Typically, with his meticulous attention to detail, Jackson then pointed out a number of corrections and additions for the next edition.

Of course it remains frustrating that in any correspondence archive there is usually an incomplete record, or, in some cases, a one-sided set of letters (i.e. either from **or** to). So, if anyone knows the whereabouts of any Jackson related correspondence I would be extremely pleased to have details via email to [impala44@btinternet.com](mailto:impala44@btinternet.com) or by post (address in Member's Guide).

#### References:

- Goodwin, B.J. (2012) J. Wilfrid Jackson – a retrospective. *Mollusc World* **30**: 24-27.
- Preece, R.C. (1990) Alfred Santer Kennard (1870-1948): his contribution to malacology, Quaternary research and to the Geologists' Association. *Proc. Geol. Ass.* **101** (3): 239-258.
- Stelfox, A.W. (1969) *Marpessa laminata* (Montagu) bred in a small box for fifty-four years. *J. Conch.* **27**: 11-12.



figure 4: Fred Taylor (left) & J. Wilfrid Jackson at the Conchological Society Annual Meeting in 1904.

## Giant African snails and hygiene

Dear Editor,

As a member of Conch. Soc. and an author who writes children's fiction books based around the character of a giant African land snail, I was wondering if members could help me with some advice. I visit schools and colleges on author visits and go to many promotional events with a tank of giant African land snails. They prove a great draw to both children and adults alike and are often held. I carry antibacterial wipes. Anyone who holds a snail must wipe their hands straight after handling. They are always encouraged to wash their hands before eating. In schools, this process is actively supported. In other situations, people tend to be very supportive of the advice.

There have been reports recently that giant African land snails could carry a risk of meningitis. One or two parents have mentioned this to me. I have subsequently read that the risk of meningitis exists where these snails are eaten, raw or not properly cooked, for example, therefore not through handling.

I would be very grateful to hear from any recipient of *Mollusc World* who may have some definitive advice on whether giant African land snails pose any risk, however small, of transmitting meningitis, or any other disease, to humans. If I can be better informed I can ensure that anybody who comes into contact with our giant African land snails will not be putting themselves at risk.

Yours sincerely,

*Sarah Lucas*

## Honorary Treasurer's Report on the Financial Statements to 31<sup>st</sup> December 2012

As with most Treasurers' reports it is a problem to avoid rolling out boring figures – but I will do my best! The Society is in a good financial position with income very much the same in 2012 as it was in the previous year. A small reduction in subscription income was more than offset by small increases in investment income, sales and donations. Included in donations and legacies are £500 left to the Society under the will of Dr. Bernard Verdcourt, together with a number of smaller donations by members, all of which are very much appreciated.

Our expenses in 2012 were a little higher than anticipated, in particular publication costs. This reflects the ever increasing costs of distribution of heavy paper copy. We are currently exploring ways of increasing members' access to digital versions of our publications, to help reduce mailing costs to those members who would prefer to access information digitally, rather than to use and store paper. We have paid the initial costs of using an outside agency to maintain members' records and handle subscription collection and membership applications. In a full year this will cost between £1500 and £2000, depending on membership numbers. The handover went very smoothly and it has removed a large administrative job from the Honorary Officers of the Society. Having received some good and deserving applications, we expect to award two £1000 research grants, and the cost is in part offset by the cancellation of one of the 2011 projects which we had expected to support.

Our results before revaluing investments was a loss of £1011 compared to a £1600 profit in 2011. Our investments performed well with over 4% growth so we added £3274 to reserves against £3102 in 2011. Overall, this was a satisfactory result for a charitable body.

The outlook is for us to continue operating at around break even. We also have the reserves to enable us to consider financing the digitisation of both the *Journal of Conchology* and *Mollusc World* which would involve a significant initial cost to achieve both a benefit for many members and long term expense savings. We may also be able to finance help towards the further digitisation of our extensive mollusc records. On a cheerful note we anticipate continuing for a few years without the need to consider a change in subscription rates

*Nick Light*

Honorary Treasurer, 10<sup>th</sup> February 2013



Members in discussion at a London NHM meeting, October 2012. (photo: Peter Topley)

### Statement of financial activities\*

	2012	2011
<b>Incoming resources</b>		
Fees and subscriptions	£13,776	£14,225
Investment income	£5,301	£5,260
Interest Income	£68	£55
Income from activities for generating funds	£789	£567
Other incoming resources	£30	£25
Donations and legacies	£622	£437
<b>Total incoming resources</b>	<b>£20,586</b>	<b>£20,569</b>
<b>Expenditure</b>		
Publications costs	£18,634	£15,493
Stationery, postage and advertising	£773	£926
Meetings costs	£87	£0
Sundry expenses and fees	£674	£550
Membership Services	£429	£0
Grants	£1,000	£2,000
<b>Total expenditure</b>	<b>£21,597</b>	<b>£18,969</b>
<b>Net incoming resources</b>	<b>-£1,011</b>	<b>£1,600</b>
Gains on revaluation	£4,285	£1,502
<b>Net movement in funds</b>	<b>£3,274</b>	<b>£3,102</b>
<b>Fund balances brought forward</b>	<b>£104,264</b>	<b>£101,162</b>
<b>Fund balances carried forward</b>	<b>£107,538</b>	<b>£104,264</b>

### Balance Sheet at 31<sup>st</sup> December 2012

	2012	2011
<b>Fixed Assets</b>		
Investments at market value	3	£106,938
<b>Total fixed assets</b>		<b>£106,938</b>
<b>Current Assets</b>		
Debtors	4	£716
Cash at bank and in hand		£6,011
<b>Total current assets</b>		<b>£6,727</b>
<b>Short term creditors</b>	5	£6,127
<b>Net current assets</b>		<b>£600</b>
<b>Total assets less current liabilities</b>		<b>£107,538</b>
<b>Unrestricted income funds</b>		<b>£107,538</b>

\* for a full copy of the report including notes to the financial statements, see <http://www.conchsoc.org/node/6140>.

## About the Conchological Society

The Conchological Society of Great Britain and Ireland is one of the oldest societies devoted to the study of molluscs. It was founded in 1876 and has around 300 members worldwide. Members receive two publications: *Journal of Conchology* which specialises in Molluscan Biogeography, Taxonomy and Conservation and *Mollusc World*, our magazine for members. New members are always welcome to attend field meetings and indoor meetings before joining.

### Some useful Contacts (*see web site for further contact details*)

HON. PRESIDENT: Mike Allen  
Redroof, Green Road,  
Codford, Warminster,  
Wiltshire, BA12 ONW  
Email: president@conchsoc.org

HON. GENERAL SECRETARY: Rosemary Hill  
447b Wokingham Road,  
Earley, Reading, RG6 7EL  
Email: secretary@conchsoc.org

#### SUBSCRIPTIONS and MEMBERSHIP

Please send subscriptions or directly related enquiries to  
Carolyn Postgate,  
CIRCA subscriptions,  
13-17 Sturton Street,  
Cambridge, CB1 2SN

For other enquiries about membership please contact:-

HON. MEMBERSHIP SECRETARY: Caren Topley  
(address: see under HON. EDITOR, *Mollusc World*)  
E mail: membership@conchsoc.org

Caren will also forward any e mails intended for Carolyn.

HON. PROGRAMME SECRETARY  
Sebastian Payne (*See page 31*)

HON. EDITOR, *Mollusc World*: Peter Topley  
7 Fairfax Close, Clifton, Shefford,  
Bedfordshire, SG17 5RH  
E mail: magazine@conchsoc.org

HON. CONSERVATION OFFICER: Martin Willing  
14 Goodwood Close, Midhurst,  
Sussex, GU29 9JG  
Email: conservation@conchsoc.org

HON. MARINE CENSUS RECORDER:  
Simon Taylor  
Fiddlesticks, 44 Strawberry Lane,  
Tolleshunt Knights, Essex, CO5 0RX  
Email: marine@conchsoc.org

HON. NON-MARINE CENSUS RECORDER:  
Adrian Norris  
17 West Park Drive, Leeds, LS16 5BL  
Email: nonmarine@conchsoc.org

### How to become a member

Subscriptions are payable in January each year, and run for the period 1st January to 31st December.

Ordinary membership £33.00

Family/Joint membership £35.00

Student membership £15.00

Under 18 (receiving *Mollusc World* only) £5.00 Institutional subscriptions £47.00.

In view of the high cost of overseas postage, members living in Europe will be asked to pay an additional postage charge of £8, and members living in the Rest of the World an additional postage charge of £17. See website for further details.

Payments in sterling only, to Carolyn Postgate (contact details above). For UK residents we suggest payment by standing order, and if a UK tax payer, please sign a short statement indicating that you wish the subscription to be treated as Gift Aid. Another simple and secure way of paying for both UK and overseas members is by credit card online via PayPal from <http://www.conchsoc.org/join>. Overseas members may also pay using Western Union, but a named person has to be nominated, so please use the Hon Treasurer's name, Nick Light.

### How to submit articles to *Mollusc World*

Copy (via e mail, typed or handwritten) should be sent to the Hon. Magazine Editor (contact details above). If sending electronic copy using e-mail please include a subject line "Mollusc World submission". When emailing several large file attachments, such as photos, please divide your submission up into separate emails referencing the original article to ensure receipt. Electronic submission is preferred in Microsoft Word, but if other programmes (e.g. Works) are used, please indicate the programme used with the accompanying e-mail. Images and Artwork may be digitised, but we recommend that a digital image size 200Kb- 1.5Mb (JPEG preferred) be sent with your submission. For line art we recommend that you send hard copy, all originals will be treated with care and returned by post. Authors should note that issues of the magazine may be posted retrospectively on the Conchological Society's web site. The general copy deadline for the November 2013 issue is 30th September 2013; inclusion in that issue is dependant upon space available but contributions are always welcome at any time.

### Advertisements in *Mollusc World*

We are pleased to invite advertisements, provided they are in line with the Conchological Society's charitable objectives and responsibilities. Typical examples might include books and other publications, equipment, services and collections of (or individual) shells. The latter will be vetted on a case by case basis and only accepted if there are no ethical problems.

Advertisements of shells for sale from commercial shell dealers will generally not be accepted. A nominal charge will usually be made for advertisements and will be required from commercial advertisers. Charges per issue are currently £20 per 100 cm<sup>2</sup> space for a boxed advertisement or £1.00 per line for a text only advertisement. Any requests for advertisements should be sent to the Editor by the normal route; information on preferred methods of payment will be given at the time.

# Conchological Society of Great Britain and Ireland

## Diary of Meetings (continued from back cover)

(Saturday 19 October Full day meeting of Council only. 11am Angela Marmont Centre, Natural History Museum)

### Saturday 9th November 2013 REGIONAL INDOOR MEETING – Edinburgh: Molluscs in Scotland (no Council meeting).

Joint meeting with National Museums Scotland.

Organiser: Adrian T. Sumner (01620 894640, [adriantsumner@btinternet.com](mailto:adriantsumner@btinternet.com) (preferred)).

**10:00 (for 10:30) – 16:00: National Museums Scotland, Chambers Street, Edinburgh EH1 1JF.**

**Guest speaker: Dan Harries (Heriot–Watt University): Scotland’s living reefs.**

Talks, posters and exhibits; the lecture will start at 14:00.

### Sunday 10 November 2013 (if weather permits): FIELD MEETING (marine and non–marine): East Lothian coast.

Please contact organiser: Adrian T. Sumner (01620 894640, [adriantsumner@btinternet.com](mailto:adriantsumner@btinternet.com) (preferred)).

**Later 2013 meetings:** Please note the following date in your diary

Saturday 14 Dec 2013 INDOOR MEETING (following Council meeting) 14:00 – 17:00, Natural History Museum

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**Indoor meetings** at the Natural History Museum take place in the Angela Marmont Centre for UK Biodiversity, Darwin Building. From the main entrance hall, turn left at the tail of the *Diplodocus*, go past the dinosaur exhibition, then down the stairs, and then turn left. The door of the Centre will be locked; please ring the bell and someone will come to open it. **Please bring plenty of exhibits and demonstration material.** If you intend to attend a **field meeting**, please remember to inform the leader beforehand, and if, on the day, you are held up in traffic or your public transport is delayed, please try to contact the meeting leader if possible.

*We are always happy to receive any suggestions for speakers for indoor meetings, or offers to lead field meetings, and also any suggestions about Society participation in the meetings of local and other societies.* Programme Secretary: Bas Payne, The Mill House, Clifford Bridge, Drewsteignton, Exeter EX6 6QE; 01647 24515, [programme@conchsoc.org](mailto:programme@conchsoc.org)

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## Membership update

The following members have joined the society recently and have not previously been included in either this column of Mollusc World or in the latest edition of the Members’ Guide (February 2011). **Please note that to be included here members must sign a data protection consent form.**

If you have not been included and now wish to be please contact Carolyn Postgate at CIRCA subscriptions, or the membership secretary (details on page 30).

The codes in italics after the member’s address indicate the member’s interests:

**A** – Applied Conchology (shell artefacts, shell money cooking, decorations etc), **B** – Conchological books, **C** – Conservation

**D** – Diving, **E** – Ecology and Pollution, **F** – Fossils

**G** – General Malacology including genetics and physiology

**Mb** – British Marine, **Mf** – Foreign Marine

**Nb** – British Non-marine, **Nf** – Foreign Non-marine

**P** – Photography, **W** – Conchological poetry and prose

**Z** – Captive breeding of molluscs

# Conchological Society of Great Britain and Ireland

## Diary of Meetings

Please check the website ([www.conchsoc.org](http://www.conchsoc.org)) for further details and any updates.



### **Saturday 13<sup>th</sup> July – FIELD MEETING (non–marine): Ponds in the Docklow area, Herefordshire**

Organiser: Rosemary Hill (0118 966 5160, [rosemaryhi@lineone.net](mailto:rosemaryhi@lineone.net))

Two sites with ponds of different ages and a wetland, all on private land, will be visited. Meet at 10:30 at Hampton Mere SO 577570 which is reached by a long farm track off the A44 at SO 582573. Please bring a packed lunch, wellingtons and water sampling equipment (if available).

### **Saturday 10 August 2013: FIELD MEETING (marine): Chimney Rocks, Penzance, Cornwall.**

Organiser: David Fenwick (01736 448392, [davidfenwicksnr@googlemail.com](mailto:davidfenwicksnr@googlemail.com)).

Piddocks, small gastropods and *Doris ocelligera*. LT 14:00, 0.9m. Meet at 12:00 at top of slipway on W side of Jubilee Pool, SW 475299.

### **Tuesday 20 August - Monday 26 August 2013: FIELD MEETING (marine): Strangford Lough, County Down (organised by Centre for Environmental Data and Recording and Seasearch NI, with CS support).**

Organiser: Julia Nunn ([julia.nunn@nmni.com](mailto:julia.nunn@nmni.com)).

A week of shore work and diving in this rich Marine Nature Reserve, based in Portaferry where laboratory facilities will be available. More information from the organiser and from <http://www.nmni.com/CEDaR/MarineBlitz>. (See also MW 31, pages 3–4.)

[YCS Sunday 1 September 2013 FIELD MEETING (non–marine) North York Moors near Robin Hoods Bay.]

### **Saturday 7 September 2013 FIELD MEETING (marine): Woolacombe Bioblitz, Devon.**

Organiser: Bas Payne (01647 24515, [bas.payne@gmail.com](mailto:bas.payne@gmail.com)).

Part of a Bioblitz organised by North Devon Coastwise (<http://www.coastwisenorthdevon.org.uk/bioblitz.html>). An extensive sandy beach with a large area of rock ledges and pools to the north. LT 13:45, 0.7m; large tidal range. Meet at 11:30 at the entrance to the carpark at the north end of Woolacombe Beach, NGR SS 457 437.

[YCS Saturday 21 September 2013: FIELD MEETING (marine) Scarborough, Yorks.]

### **Sunday 22 September 2013 FIELD MEETING (non–marine): Edmondsham House, Dorset.**

Organiser: Graham Long (01425 653718, [grahamlong@waitrose.com](mailto:grahamlong@waitrose.com)).

A large estate on Cranborne Chase with a variety of habitats, including some chalk, some wetland/waterside, and some ancient woodland.

Meet at 11:00 at the entrance gate to Edmondsham House, SU 0599 1172.

[YCS Saturday 5 October 2013 FIELD MEETING (non-marine) Fridaythorpe, Yorks.]

### **Saturday 5 October 2013 INDOOR MEETING: Demonstrations, exhibits, and lecture (no Council meeting).**

**Guest Speaker: Matt Law (speaker) and Nigel Thew – Snails, sand and archaeology in the Outer Hebrides.**

**11:00 – 17:00: Angela Marmont Centre, Natural History Museum, London SW7 5BD.**

There will be exhibits, demonstrations and discussion in the morning; the lecture will start soon after 14:00.

### **Saturday 12 October 2013 FIELD MEETING (non-marine): Wyre Forest, Worcestershire / Shropshire.**

Joint meeting with Wyre Forest Study Group.

Organiser: Rosemary Winnall (01299 266489, mob 07732 203393, [rosemary@wyreforest.net](mailto:rosemary@wyreforest.net)).

Forestry Commission land with oak woodland, conifer plantation, streams and tufa flushes; hope to find *Malacolimax* and also Land Caddis (*Enoicycla pusilla*).

Meet at 10.30 at Hawkbatch Car Park, SO761776, 2miles NW of Bewdley on the B 4194 .

(Meeting diary continues on page 31)