

Mollusc World

July 2018 • Issue 47

**A year of mollusc recording
and conservation**

**E. W. Swanton: conchologist and
museum curator**

NBN Atlas update



The
Conchological
Society
of Great Britain & Ireland



This year's Conchological Society AGM saw some changes in the Society's officers. I welcomed Martin Willing as our new Hon. President (see page 3 and photo to the left*). We also saw Ben Rowson and Paula Lightfoot take up their respective positions as Hon. Nonmarine Recorder and Hon. Webmaster. I am sure I will echo the sentiments of many members in wishing them well in their roles. There are always opportunities to participate in the running of our

Society so if you think you may be able to help in any way please don't hesitate to contact us.

Most of us by now have hopefully finished being inundated with requests for consent due to the recently implemented General Data Protection Regulations (GDPR). Conch. Soc. has not been exempted and members have already been contacted by e mail and/or post about this. I would encourage any of you who have not yet updated your contact preferences to please do so (contact CIRCA subscriptions, see page 35).

On a 'lighter' note, back in April, King's Place in London was host to 176 *Cornu aspersum* snails who took centre stage in a live 'sonic installation'. French artists Elizabeth Saint-Jalmes and Cyril Leclerc conducted an 'immersive sensorial experiment' by harnessing each snail with a small diode and let them move around on a darkened platform. 'Slow Pixel' invited the audience to slow down to watch 'as the snails drew their individual trajectories in a 'snail ballet'!

Some members have been concerned about the use of plastic envelopes to deliver this magazine, so we have made a change to traditional paper envelopes. Although less 'weather proof', hopefully this will be a small positive move in plastic reduction.

Finally, a reminder to anyone running or attending field meetings this summer to encourage a write up of the event for *Mollusc World*, however brief. Such reports are not only informative and interesting for members, but also can provide more detail of some of the main highlights than is often available from lists of submitted records.

Peter Topley

(*photo: Ben Rowson)

Mollusc World

This magazine is intended as a medium for communication between Conchological Society members (and subscribers) on all aspects of molluscs, in addition to the material found on our web site where a number of back copies are available for viewing. *Mollusc World* will also be of interest to all those enquiring about this subject or the work of the Society. We welcome all contributions in whatever form they arrive (see page 35 for further details).



The
Conchological
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A few introductory words from the new CS Hon. President *Martin Willing*



Martin Willing.

(photo: S. White)

Peter Topley was an excellent President and I thank him for the tremendous amount of work that he has undertaken for the Society during the last three years in addition to editing *Mollusc World*; quite some achievement. I am honoured, thrilled and delighted to be elected to serve such a special organisation; thanks Peter for nominating me as your successor.

I joined the Society 53 years ago in the spring of 1965 following a visit to the Natural History museum where I had taken shells for identification. I was introduced to the Mollusca Department and Peter Dance. Thanks to Peter's encouragement I was elected as a junior member and placed under the supportive care of the Officer in charge of junior members, the Rev. H.E.J. Biggs.

Membership of the Society was a revelation, a 'life-changer'. Through indoor meetings in the Natural History Museum's impressive oak-panelled board room and field meetings I met an amazing range of people who opened the world of conchology to me by their generous sharing of ideas, specimens and infectious enthusiasm; I was hooked for life!

Other than conchology I studied education and biological sciences, becoming a head of department in several schools, before spending half of my teaching career managing biological and environmental sciences in a sixth-year college. In my early career I also managed to undertake a DPhil at Sussex University studying post-glacial molluscan changes using biostratigraphy in West Country tufa deposits.

The Conchological Society is special and unique in bringing together keen amateur, academic and professional malacologists and has always been about much more than just shell collecting. It has pioneered systematic molluscan recording, producing a series of marine and non-marine atlases that set a quality assured standard for molluscan biogeography in Britain and Ireland. In addition to recording, the Society has made a significant contribution to molluscan conservation. In the 'dark days' of 1984 when the 'improvement' tide of agricultural and forestry habitat destruction seemed unstoppable, I was appointed to the new post of Conservation Officer. As with biological recording the Conchological Society has contributed to molluscan conservation through involvement in many pioneering initiatives. These include the Invertebrate Sites Register in 1983, the first invertebrate Red Data book in 1991, the voluntary conservation sector's Biodiversity Challenge agenda and governmental UK Steering Groups Biodiversity reports in 1995. In the following years Society specialists

assisted in developing priority species lists and in serving on all of the Biodiversity Action Plan (BAP) molluscan steering groups. An assessment of the importance of the Society would be incomplete without mention of our two key publications, the *Journal of Conchology* and *Mollusc World* (preceded by the Conchologists' Newsletter).

Although run wholly by volunteers, the Society has, through the dedication of its council and membership, successfully evolved over the years. Examples of key areas already identified for future development include:

- Further exploration of ways to get the *Journal of Conchology* online.
- The establishment of a Facebook page to publicise the Society to encourage debate and information exchange.
- The continued evolution and expansion of the Society website, including the much-visited encyclopaedia.
- Further joint initiatives with other organisations.
- Within the Society the development of support teams for Society officers.

An increasing challenge facing Society members concerns their ability to collect and survey. When I first joined, collecting molluscs was perfectly straightforward – you pretty much collected wherever you happened to be both at home and abroad. Since those 'free-and-easy' days things have become increasingly restricted, especially in Britain and Europe since the 1990s with the advent of the Wildlife and Countryside Act, EU Habitat and Species directives and numerous well-meaning restrictions introduced by individual countries. Additionally, many countries now prohibit any collection, even outside protected areas without permits obtained through (often widely ignored!) complex bureaucratic systems. It is becoming increasingly difficult for conchologists to survey and undertake responsible collecting without possibly breaching some protection or restriction, especially when abroad. This imposes an uneasy level of uncertainty that discourages the legitimate interest and curiosity that has played such an important part in the activities of the Society. Of course, an appreciation and desire to conserve populations and maintain biodiversity is, in general terms, to be broadly welcomed and there are certainly some species (e.g. freshwater pearl mussels, tropical giant clams and localised populations of some island endemics) where strict protection is fully justified. Unfortunately, the extreme protection of some species and survey restrictions over wide areas may, ironically, be counterproductive to conservation. The creation of unnecessary obstacles can hinder species monitoring, opportunistic survey and exploration for new species; the production of our distributional atlases might now be very difficult in many parts of Europe. Mostly, it is the all-important habitats that need protection rather than the individual animals, which are frequently small, difficult to locate and objects with little appeal to collectors. Certainly, the Conchological Society must respect protections and controls, but possibly sometimes question them to seek a common-sense balance. To quote one of Bas Payne's recent observations, 'the road to hell is paved with well-intentioned regulation.....'.

Please let me and the Society's council team know your views and suggestions so that we can consider ways to make Society membership even more worthwhile and enjoyable. If you wish, please contact me by phone, email, letter but best of all, when we meet at a Society meeting.

Arguably one of the highlights of the year was not the discovery of a rare or new species in the field but the publication of the results of a major international investigation into the polyphyly of the traditional nudibranch family Flabellinidae which had particular implications for sections of the British and Irish fauna (Korshunova et al., 2017). The explosion in interest in nudibranchs in recent decades, prompted particularly by advances in diving technology and the digital photography revolution, has identified several areas of research where it has become clear that traditional taxonomic groupings are unsatisfactory and in fact far more genetically diverse than previously appreciated.

This very in-depth study used anatomical and multi-locus genetic factors to revolutionise the Flabellinidae across 7 families, 3 of which are new, establishing 16 new genera and 13 new species in the process. Some of our familiar species now find themselves in new genera; for example, the familiar *Flabellina pedata* (Montagu, 1816) is now *Edmundsella pedata* (Montagu, 1816), although it was only a generation or so ago that it was familiar as *Coryphella pedata* (Montagu, 1816) so change is not a new thing. One of the new species described is particularly relevant to Britain and Ireland as it effectively splits what was considered a single taxon. As with the recent description of *Aeolidia filomenae* Kienberger et al., 2016 which created a split between it and *Aeolidia papillosa* (L., 1767) and meant that all previous records of *A. papillosa* could potentially be considered as either species (Taylor, 2017), the new species *Fjordia chriskaugei* Korshunova et al., 2017 (figure 1) splits from *Fjordia lineata* (Lovén, 1846), the latter having previously been placed in the genus *Coryphella* Gray, 1850 but both now being classified in one of the newly erected genera. Fortunately, *F. chriskaugei* is quite readily recognisable by exterior morphology so some old records can be redetermined where supported by suitable photographs; as well as the illustration here, Korshunova et al. (2017) suggest that Thompson & Brown (1984, plate 27) and Picton & Morrow (1994, p.95) both depict the new species, which would appear to be quite widespread in Britain and Ireland. The other local new species described in the paper, *Carronella enne* Korshunova et al., 2017, is also within one of the newly described genera and is a deepwater species.



figure 1: *Fjordia chriskaugei*. (photo: Bernard Picton)

Another 2017 publication described a further new nudibranch species for Ireland, this one with a name with distinct Irish connections: *Knoutsodonta pictoni* Farfaro & Trainito, 2017

(figure 2) named in honour of the prolific nudibranch scholar Bernard Picton, based in Northern Ireland, who delivered an excellent lecture to the Conchological Society recently. The paper also notes records of the new taxon from Western Scotland and compares it with the other 14 species described in the genus, concluding as is so often the case that further work is required which, in this particular instance, may very well result in the genus being found to be polyphyletic.



figure 2: Three specimens of *Knoutsodonta pictoni*. (photo: Bernard Picton)

Another species in the genus, *Knoutsodonta depressa* (Alder & Hancock, 1842), was among a list of records from Sennen Cove compiled by the ever-prolific David Fenwick. David runs a series of websites based around his images of the fauna and flora of Devon and Cornwall and as mentioned in these reports previously his www.aphotomarine.com site is worth a visit. The usefulness of the global availability of online images was ably demonstrated in 2017 when Dr. Manuel Caballer Gutierrez viewed some of David's Cornish images from 2 years earlier of the sacoglossan *Hermaea bifida* (Montagu, 1816) and thought he recognised instead a species he and a colleague had described, also 2 years earlier: *Hermaea cantabra* Caballer & Ortea, 2015 (figure 3). Viewing further images confirmed his view and hence gave us the first British records of that species.

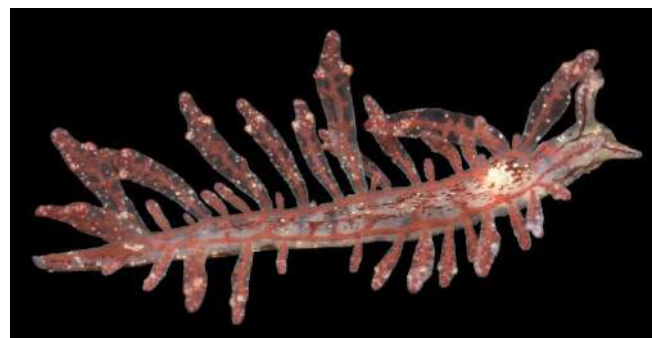


figure 3: *Hermaea cantabra*. (photo: David Fenwick)

One of David's regular haunts is Newlyn Harbour. Many of us have scavenged on the decks of inshore fishing boats hoping to find something interesting amongst the debris and David did just that in September 2017 when he found a beautiful little gastropod on a specimen of the equally attractive featherstar *Antedon bifida* (Pennant, 1777). Obviously an eulimid, the precise identity proved elusive until the internet again demonstrated its value and European workers were able to confirm the specimen as *Curveulima dautzenbergi* (Pallary, 1900), (figure 4) yet another new

species for the British list and potentially another extending its range north to the southwest of Britain. As a 'deck find' the exact locality of the animal was not possible to establish but David spoke to the boat skipper who indicated he had been working crab pots off Pendeen. Also via David came a further record of the recent southwest colonist *Calma gobiophaga* Calado & Urgorri, 2002, found by Heather Buttivant near Looe in Cornwall.



figure 4: *Curveulima dautzenbergi*. (photo: David Fenwick)

There was yet another new nudibranch species recorded from British waters in 2017 which appears to be spreading northwards: the quite spectacular chromodorid *Felimida khroni* (Vérany, 1846) (figure 5). The first sighting was by diver Cat Briggs who photographed a specimen at 24 metres depth at Eddystone Lighthouse, followed soon after by a record from the Bay of Brest in Brittany, France, and then from off Porthkerris on The Lizard, Cornwall. It is unlikely that such a vividly coloured animal would have been overlooked previously so it would genuinely appear to be expanding its distribution; it will be interesting to see if further records are made in the near future.



figure 5: *Felimida khroni*. (photo: Paul Engels)

Opisthobranch recording in Scotland continues apace too. Divers Jim Anderson and Chris Rickard are particularly active and the less well explored east coast record list is growing. *Elysia viridis* (Montagu, 1804) is not thought of as a rare species but very few east coast records exist so Chris' record from Roseheart near Fraserburgh is notable. Jim added *Embletonia pulchra* Alder & Hancock, 1851 and *Onchidoris sparsa* (Alder & Hancock, 1846) while it was a good year for the rarely observed *Okenia aspersa* (Alder & Hancock, 1845) (figure 6) with numerous records reported around May when the species breeds in shallow water, producing characteristic pink corkscrew-shaped spawn.



figure 6: *Okenia aspersa*, found at St. Peter's Pool, Orkney on the Conch. Soc. field meeting in May 2017.

O. aspersa was observed in good numbers in St. Peter's Pool during the Society's spring field excursion to Orkney. Although not a hugely well attended event, as was rather to be expected given the remote locality, numbers were bolstered by a variety of local people on different days including Alastair Skene and his sister Alison, and the work was further facilitated by Sydney Gould of the Orkney Biodiversity Records Centre. Extending into a second week and with a number of boat excursions also arranged, well over a thousand marine mollusc records were made with several notable discoveries and no doubt more yet to be made as preserved micro samples continue to be processed. Intertidal nudibranchs were not uncommon with, for example, several records of *Aegires punctilucens* (d'Orbigny, 1837) and a find of *Palio dubia* (M. Sars, 1829). An *Armina loveni* (Bergh, 1860) (figure 7) turned up in an offshore sample, the specimen going on to form part of one of Ian Smith's excellent online species accounts (Smith, 2018). There was a wonderful range of shelled species too and it was interesting to confirm the presence of *Steromphala* [formerly *Gibbula*] *umbilicalis* (da Costa, 1778) in the northwest of Mainland but not further on the island's shore; this marks a noted break in the species' range in northeast Scotland.



figure 7: *Armina loveni* (c.4mm), Kirkwall Bay, 14m depth, May 2017. (Photo: Ian Smith)

We were fortunate to be joined in Orkney by the prolific Scottish marine recorder David McKay, for whom 2017 was another very productive year. Among his highlights were several *Simnia patula* (Pennant, 1777) from the North Sea just off Whitby (very few North Sea records exist for the species) along with a number of live *Comarmondia gracilis*

(Montagu, 1803), plus some excellent specimens of *Xylophaga dorsalis* (Turton, 1819) and *Xylophaga praestans* E.A. Smith, 1903 (figure 8) from wood recovered by a fishing vessel in the northern North Sea. In a deepwater sample taken northwest of Lewis in the Outer Hebrides David found an amazing array of small nuculanids including the rarely recorded species *Yoldiella incala* Allen, Sanders & Hannah, 1995; *Yoldiella nana* (M. Sars, 1865); and *Yoldiella solidula* Warén, 1989. Other exceptional deepwater records include *Halicardia flexuosa* (Verrill & Smith, 1881) (figure 9) southwest of St. Kilda and another possible British first, *Skenea olgae* Segers, Swinnen & De Prins, 2009. Past material collected by David over the years continues to provide interest with, for example, a record of the very rare bivalve *Parilimya loveni* (Jeffreys, 1882) from 2014. Grit samples collected by David and passed to others such as John Fisher also produce good lists and interesting records, such as recent *Alvania testae* (Aradas & Maggiore, 1844) [formerly *A. abyssicola* (Forbes, 1850)] from material off Scilly.



figure 8: *Xylophaga dorsalis* (small) and *Xylophaga praestans* (large) in recovered wood, North Sea. (photo: David McKay)



figure 9: *Halicardia flexuosa*.

The value of gathering and processing shell grit samples, both intertidally and sublittorally where possible, has been further demonstrated by the material collected on the Society's 2016 trip to South Devon, which continues to produce good data. Working on some of the grab samples from Plymouth Sound, Adrian Brokenshire compiled some large species lists

including a record of the infrequently seen *Dikoleps cutleriana* (Clark, 1849) and an unmatched pair of disarticulated valves of the small mytilid *Crenella arenaria* Monterosato, 1875 (figure 10), primarily a Mediterranean species and not previously recorded from Britain. Of course, shell-only records in areas of high maritime traffic have to be treated with caution but often they can be the first signs of new colonisations, whatever the vector of introduction, so this species is one worth looking out for.

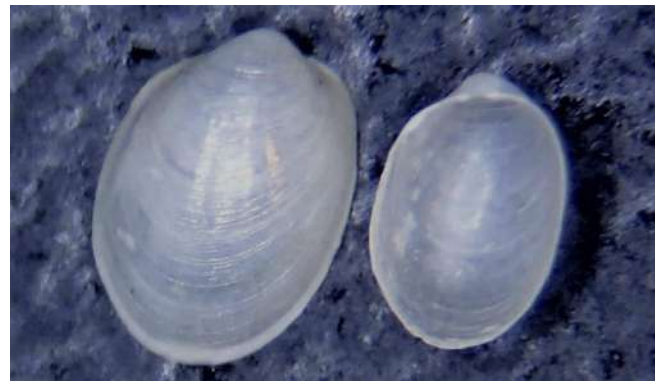


figure 10: *Crenella arenaria* dredged from Plymouth Sound on the Conch. Soc. trip in 2016.

Last year's report (Taylor, 2017) included news of another such find: Peter Barfield's discovery on the coast of the Solent of a dead specimen of the cockle *Acanthocardia paucicostata* (G. B. Sowerby II, 1834), a species previously restricted to the shores of continental Europe. Last year Peter found another dead specimen at a nearby locality, suggesting the previous one was rather more than an incidental find. Also on the Solent shore Peter found some unusual mussels he did not initially recognise but upon investigation they were identified as *Arcuatula senhousia* (Benson, 1842), the Asian date mussel (figure 11), new to Britain, a notorious invasive which grows to around 30 mm and has been establishing recently in the Bay of Biscay (Bachelet et al., 2009). Of three specimens found two were articulated and one was alive so workers on the southern coast of England should familiarise themselves with the species and again look out for further occurrences.



figure 11: *Arcuatula senhousia*. Solent. (photo: Peter Barfield)

Returning to the Society's own field activities, in October several of us spent a week on the Gower peninsula in South Wales (thanks to organiser Rosemary Hill). While some promising sites, notably Whiteford Point and the platform south of the Worms Head causeway, were dominated by

dense carpets of young *Mytilus edulis* L., 1758, others produced diverse lists. Investigating reports of dead shells of *Paludinella globularis* (Hanley in Thorpe, 1844) having been found in local shell grit (supported by further grit finds during the week, notably from Threecliff Bay where rich shell grit samples were found) the author and Jan Light explored sea caves at Rhossili for the species and eventually were rewarded with three live specimens. Also found, perhaps unsurprisingly given the habitat, were a number of live *Otina ovata* (Brown, 1827) which proved to be more common (or easier to find) with further finds at Rhossili and from caves at Caswell Bay later in the week.

A highlight of the Gower trip was provided by the strong south-westerly gales which blew up at the end of the week. A windblown stagger along the sands at Hillend on a receding tide provided an opportunity to see and photograph an impressive live stranding of the classic pelagic organisms: By-the-wind Sailor (*Veleva veleva* (L., 1758)) and Portuguese Man o'war (*Physalia physalis* (L., 1758)). Of course, being dutiful conchologists hopes were raised that a *Janthina* sp. might also be found but despite the stranding being widespread and occurring for several days the only such reported occurrences anywhere were from Tiree in the Hebrides. This exposed island is something of a hot-spot for *Janthina* and in late summer 2017 there were numerous specimens found washed up in several places around the island, all apparently of *J. janthina* (L., 1758). If anybody knows of any other *Janthina* finds in 2017 then do please let the author know.

Despite the south-westerlies there were no notable transatlantic rafting records in 2017, bucking the recent trend. The storms did seem to strand numerous native octopuses in several places around Britain and Ireland though, with more records than for many years, particularly of *Eledone cirrhosa* (Lamarck, 1798). There was also an unusual stranding of curled-up specimens of the large chiton *Acanthochitona fascicularis* (L., 1767), observed in October 2016 but reported in 2017, when Natasha Clark found "loads of weird creatures...like rubbery alien marbles" on the sand near Littlehampton.

Just as it seemed a year would pass without an "exotic" shell being found on our coast, in December Graham Bathe and his family were looking for *Trivia* cowries on Studland beach when they got more than they bargained for: one of the Indo-Pacific money cowries, *Monetaria annulus* (L., 1758) (figure 12). The origins of such specimens can only be speculated but this specimen has a hole in it, maybe for threading, and of course such shells were used for trade extensively for many years. There are cited instances of ships being wrecked many years ago with cargoes including quantities of money cowries; there was one, for example, off the north Devon coast which caused money cowries to wash up frequently for years after. Equally though, it could have fallen off a modern bracelet.

Finally, all coastal and offshore workers are encouraged to submit records for inclusion in the Society's marine dataset. Currently the vast bulk of data comes from a small but dedicated group and it would be good to hear from more people. The 'British Marine Mollusca' group continues to flourish on Facebook and recording cards are available there. Alternatively, the Hon. Marine Recorder can be contacted by email or snail mail and records of any species rare or common can be submitted that way in any format.



figure 12: *Monetaria annulus* from Studland alongside a local *Trivia* (right) (scale in mm). (photos: Graham Bathe)

References

- Bachelet G., Blanchet H., Cottet M., Dang C., Montaudouin X. de, Moura Queiro A. de, Gouillieux B. & Lavesque N. (2009). A round-the-world tour almost completed: first records of the invasive mussel *Musculista senhousia* in the north-east Atlantic (southern Bay of Biscay). *Marine Biodiversity Records* **2**(e119), available online at <http://dx.doi.org/doi:10.1017/S1755267209001080>.
- Furfaro G. & Trainito E. (2017). A new species from the Mediterranean Sea and North-Eastern Atlantic Ocean: *Knoutsodonta pictoni* n. sp. (Gastropoda Heterobranchia Nudibranchia). *Biodiversity Journal*. **8**(2): 725–738., available online at [http://www.biodiversityjournal.com/pdf/8\(2\)_725-738.pdf](http://www.biodiversityjournal.com/pdf/8(2)_725-738.pdf).
- Korshunova T., Martynov A., Bakken T., Evertsen J., Fletcher K., Mudianta W., Saito H., Lundin K., Schrödl M., Picton B. (2017). Polyphyly of the traditional family Flabellinidae affects a major group of Nudibranchia: aeolidacean taxonomic reassessment with descriptions of several new families, genera, and species (Mollusca, Gastropoda). *ZooKeys* **717**: 1–139., available online at <https://zookeys.pensoft.net/articles.php?id=21885>.
- Picton B. & Morrow C. (1994). *A field guide to the nudibranchs of the British Isles*. Immel Publishing, London, 143 pp.
- Smith I.F. (2018). *Armina loveni* 191.1, available online at <https://flic.kr/s/aHsmgryYFW>.
- Taylor S., 2017. Marine Recorder's Report 2016. *Mollusc World* **44**: 25–27.
- Thompson T. & Brown G., 1984. *Biology of opisthobranch molluscs* (vol. 2). The Ray Society Publishing, London, 229 pp.

Corrigendum, issue 46

Mollusc World 46 (March 2018), page 4 **Mountain dwellers...**
Insert the following between 'Loc.5: Cuzco' and 'Loc.7: Sillustani':

Loc.6: Sacsayhuaman (3701 m) is the famous Inca fortress that overlooks the city of Cuzco (figure 4). Here, despite the altitude, I found good collecting on a hillside where the dominant vegetation was thin grass and lichens.

As this will be my last report as Hon. Non-marine Recorder I would like to thank all of those members who forwarded their material to me over the years. In this, my final year, I have received over 2,557 records to add to the recording system, from 64 of the 113 vice-counties. The largest number came from VC62 North-east Yorkshire, with 280 records in 2017. The most notable records deserve some further consideration. *Selenochlamys ysbryda* continues to spread with records forwarded from two vice-counties; Welwyn Garden City, Hertfordshire (VC20) recorded by Rebecca Head in early September 2017 and Sheffield, Yorkshire (VC63) found by Victor Soria-Carrasco on 29th September 2017 with both records confirmed by Ben Rowson. The slug *Ambigolimax nyctelius* was recorded by Chris du Feu from Bowmore, Islay (South-Ebudes VC102) NR 31325995. The specimen, which was confirmed by Ben Rowson, is now in Cardiff Museum. Terry Crawford and I also confirmed this species in October 2017 from greenhouses at Threave Botanical Gardens and Logan Botanical Gardens in Kirkcudbrightshire and Wigtownshire (VC's 73 and 74: one being a new VC record)). The specimens were confirmed by dissection with one being retained in the Leeds City Museum. One of the most interesting records in 2017 was of a large colony of the non-native freshwater snail, *Melanoides tuberculata*, a species more usually found in fish tanks and hot-house aquaria. The snails were found living in the wild in a tributary of the River Tyne at NZ1005864024 by Russell Barber in August 2017. The stream is reported to be warm such that it even occasionally steams. This may only be a temporary population as it is probably dependent upon industrial warming of the river waters.

Another species which has turned up again is the non-native freshwater bivalve *Corbicula fluminea*, recorded as a new VC record from the Grand Union Canal, Loughborough (VC55: Leicestershire with Rutland) SK 54521971 and found by Prof. P.J. Wood on the 18th of September 2017. *C. fluminea* is certainly spreading in the 'canal basin' of central England. This new site lies about 34 km due east of a location on the Trent and Mersey Canal (VC 39 Staffordshire) where the clam was first recorded in the Midlands in 2011 (MW 29: 18).

I would also like to thank the late David J. Lindley who helped me considerably over the years prior to his untimely demise. We published his paper (Lindley 2016) on the two wall *Vertigo*'s in the Naturalist in his memory. I recommend those who have not read this paper to do so and consider checking out some of the listed sites in the future. The article can be viewed at:

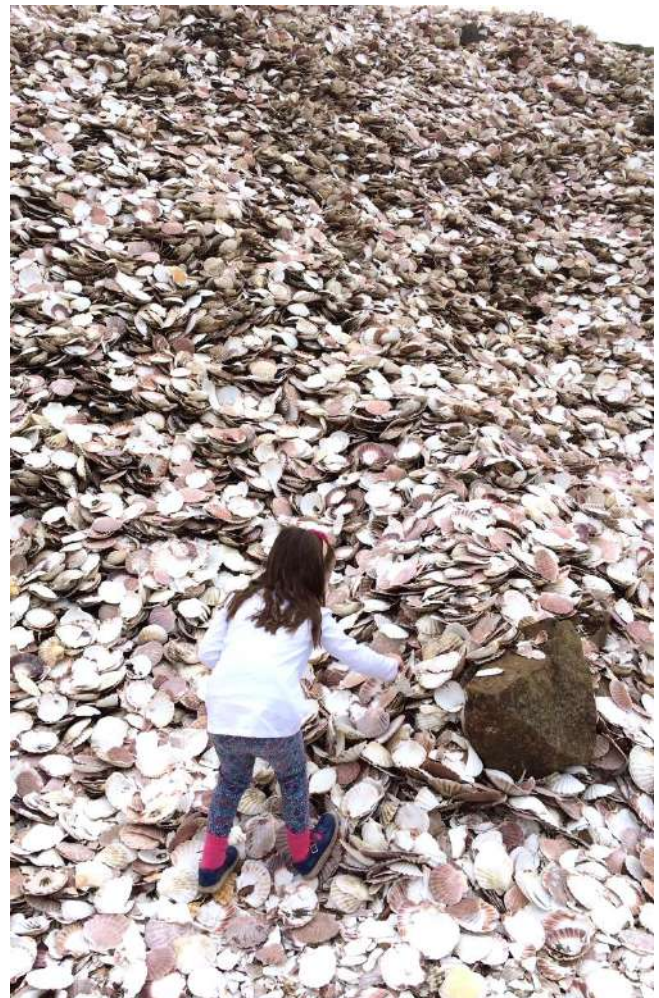
http://www.ynu.org.uk/sites/default/xyzerrt/documents/molluscs/David_Lindley_Naturalist_1091.pdf

Reference

Lindley, D.J. (2016). 'Notes on *Vertigo alpestris* and *Vertigo pusilla* in Watsonian Yorkshire. *The Naturalist*. **141**: 27 – 38.



Melanoides tuberculata (height of shell 24 mm) from Low Prudhoe, near Newcastle upon Tyne. (photo: M.J. Willing)



The above photo was sent in by Kate Myers-Smith of her daughter Eliza on a huge mound of *Pecten maximus* scallop shells on farmland near Tobermory, Scotland. They also noticed many ground-up scallop shells in the fields.

[Ed.]

No, not a birthday of the YNU itself, which has been going strong since 1861. The clue is in the Minute Book of the Conchological Section of the YNU, in the record of the 1967 AGM held on 28th October (figure 1). I will give a transcript because older members of the Conchological Society may recognise some names.

1967

The Annual Meeting was held in Leeds City Museum, Municipal Buildings, Leeds at 4 pm on October 28th. Mr Robinson presided and the following were present: Messrs Armitage, Appleyard, Dearing, Thompson, Norris & Dearing.

The minutes of the 1966 Annual Meeting were read & adopted as was the Secretary's Annual Report. This year the YNU meetings had only been attended on 2 occasions and one of these was unsatisfactory as the YNU party had left HQ by the time Mr Norris arrived. Officers for 1968 were re-elected with the addition of Recorder: Mr A. Norris c/o City Museum, Leeds.

The programme as arranged by the Y.C.S. was adopted for forwarding to the Editor of the Naturalist for printing on the YNU members' Cards.

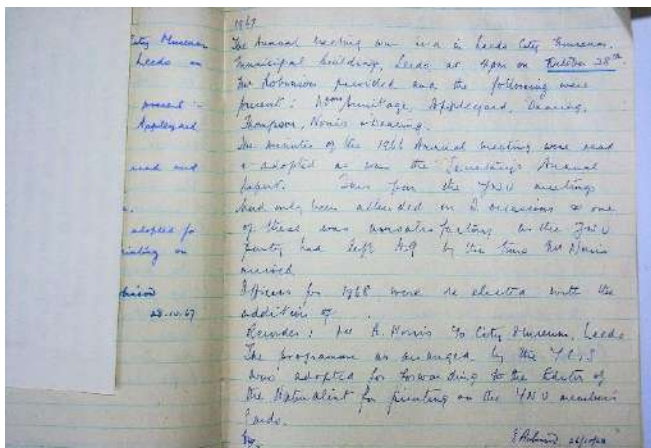


figure 1: Minutes of the 1967 AGM of the YNU Conchological Section.

YCS, above, refers to the Yorkshire Conchological Society which shares its membership and meetings with the YNU Section. There are some interesting details in the Secretary's Report, not least the failure to find *Helix pomatia* near Wentbridge (!), and the first British *Vitrea subrimata* record near Austwick. What really caught my eye, however, was that Adrian Norris became Recorder of the YNU Conchological Section precisely 50 years before the 2017 AGM, also to be held on 28th October, at his home in Leeds. Typically modest, he had not mentioned this anniversary to us, but we were able to congratulate him on his remarkable achievement.

Three weeks later the YNU held its AGM which Adrian was unable to attend. Under AoB I informed those present of Adrian's amazingly long term as Conchology Recorder, which must be extremely rare, if not a record, among the many YNU sectional recorders now and in the past. There followed discussion of the significant other roles within YNU undertaken by Adrian over the years, e.g. past-President, Trustee for nearly 40 years, chair of several key committees, organiser and co-ordinator of field meetings, and a deep involvement in training initiatives. Before long it was agreed that formal recognition was required. Several members had

heard on the BBC Radio 4 programme 'Saturday Live' that very morning a discussion of slugs and snails, somewhat derogatory at times, but highlighting a 'golden snail' garden ornament. Paula Lightfoot swung into action, obtained a golden snail, and designed a certificate of appreciation. She was also organising the YNU Annual Conference on non-native species to be held in York on 7th April 2018. Ben Rowson was speaking on 'The slugs of Britain and Ireland: a fauna full of surprises' and agreed to make a surprise presentation to Adrian at the end of his talk (figure 2). Ensuring that the secret was kept, but also that the right people were in the know, was a challenge but successful; Adrian's wife, Barbara, must have found a convincing reason to attend the YNU Conference! Adrian's surprise and heartfelt appreciation were obvious to everyone. Barbara later told me how much it had meant to Adrian, because both conchology and the YNU have been so important in his life.

It was particularly fitting that Ben should have made the presentation because he is taking over from Adrian as the Conchological Society's Hon. Non-Marine Census Recorder, a post that Adrian has held for over 10 years. Adrian is continuing as Mollusc Recorder for the Yorkshire Naturalists' Union. There is still plenty of mollusc work required in the massive county of Yorkshire, both routine recording in new sites and also monitoring of rare and sensitive species. We will continue to benefit from Adrian's encyclopaedic knowledge of the county's slugs and snails and their habitats.



figure 2: Adrian Norris and Ben Rowson at the YNU Conference (with certificate, below) 2018. (Photo: Paula Lightfoot)

A message from the new Conchological Society Hon. Non-Marine Recorder.

Ben Rowson

It is a privilege to be elected to the post of Honorary Non-Marine Recorder for the Society, taking over from Adrian Norris who has held the post for the last 10 years. (Adrian continues his County recording work in Yorkshire, having recently passed the 50-year mark! [See previous page. Ed].)

The Recorder acts as custodian of the Society's 140-year-old database of records of non-marine molluscs (figure 1), including all those in the latest checklist (Anderson, 2008; <http://www.conchsoc.org/resources/Anderson.pdf>) and any recent additions to the fauna. It is in effect the National Recording Scheme for both the UK and the Republic of Ireland, and was used for previous Atlases (e.g. Kerney, 1999) and the earlier vice-county (VC) census scheme. A particular strength of the dataset is the inclusion of subfossil records dating as far back as the Late glacial (15,000 years ago). With very few restrictions, all the Society's records are freely available via the National Biodiversity Network Atlas (<https://nbnatlas.org>) where indeed they make up the bulk of the non-marine mollusc data. The Atlas is a flexible tool, one useful feature being the ease of generating a species list for an area.

My role is to ensure that the standard of verification of the Society's dataset is maintained, while adding as much new data as possible. Inevitably, the large volume of records to enter (both existing and newly generated) means that some prioritisation is required. I will be keeping the useful list of VC occurrences up to date. Longer-term, I hope to help deal with some issues relating to the display of data on the NBN Atlas.



figure 1: The Society's vice-county census books, in use since the 1920s.

Submitting records

Anyone can submit records directly to the scheme and we are grateful for all contributions. Please send them to me by email at ben.rowson@museumwales.ac.uk or at the postal address below. If possible, please use Excel format with each species record in a separate row, to improve speed and accuracy when importing into the database. A new recording form to help with this is in preparation.

Always remember the standard 'what/where/when/who' information, including an OS grid reference. In Excel format, each of these should appear in separate columns. Two optional but extremely useful extras are the habitat (a brief description is fine) and the vice-county number or name. Vice-county details can easily be obtained from place names or grid references using a number of websites such as Cucaera (www.cucaera.co.uk) and Where's the Path? (<https://wtp2.appspot.com/wheresthepath.htm>).

Doing so also provides an opportunity to check that a grid reference is correct.

In previous decades records were submitted or entered almost entirely by the Hon. Recorders from specimens, literature, recording cards, and lists (latterly in a digital format). Since the development of the Local Environmental Record Centre (LERC) network, and online/mobile submission tools including the Biological Records Centre's iRecord (www.brc.ac.uk/irecord), record submission has become much easier for all. The iRecord app makes it very easy to submit records with photos from smartphones or other devices. However, such records are not automatically gathered by the Society – see below.

Please also note that the Society has an agreeably open policy (www.conchsoc.org/node/2063) concerning the submission and use of records. For Data Protection reasons, records should not include personal data (such as addresses) beyond the names of the finders and identifiers.

Verification

People submitting records to a National Scheme usually identify their species correctly. I will review all records submitted to me and am likely to verify the majority without querying them. Those I am likely to query include any that are well outside their previously known range (e.g. new VC records), rarities regularly confused with common taxa (e.g. *Segmentina nitida*), or taxa requiring dissection or other in-depth identification. I may request photographs or specimens in such cases (see below).

I will periodically be verifying records submitted to iRecord, with the help of other volunteers. However, the Society still only accepts and extracts records for its database via its two voluntary Recorders (Marine and Non-Marine) so there will often be a time lag before records can be verified. Those that are verified will periodically be extracted and then added to the Society database. If something is urgently exciting, it might be better to submit the record directly to the Recorder.

On Facebook, the 'Slugs and Snails of the British Isles' Group is currently very active, with around 1500 members. Several people, many of them members, are providing excellent identification tips to those who post photos on the Group. However, Facebook is not in itself a recording system, and records cannot be extracted unless they include the what/where/when details.

There is plenty of scope for volunteers to assist the Society with verification and the harvesting of data from other sources (including collections, record cards, and Facebook). Please get in touch if you would be interested in helping with this.

Sending photographs

Many molluscs can be readily verified from photographs. Sadly many others cannot, at least at some stages of life. Field guide illustrations show the standard views that are required for most species of snail shell. In the case of the flattened species this is often 'top, front, and bottom', allowing all features to be seen. Including an indication of scale is also important (figure 2).

I am happy to comment on photos received by email, if you would like your identification checked. However please note that my email address cannot receive messages over 7 MB in size (including attachments). The resolution of a 1 MB photograph is almost always sufficient.



figure 2: Three standard views of a snail shell (*Paralaoma servilis*; scalebar 1 mm).

Sending specimens

Some taxa are best identified from specimens, and I am happy to examine any molluscs sent or shown to me at Amgueddfa Cymru – National Museum Wales, Cardiff, where I am based. Of course, please include the standard ‘what/where/when/who’ record details on the labels.

The specimens behind the most significant records are worth preserving as vouchers in case of future queries (figure 3). If you are sending material that you would like to have returned, please make this clear at the outset. Otherwise, I shall assume

that it is a donation to the Non-Marine Recorder (i.e., me), on the understanding that it may later be incorporated into the Museum’s collections. This will ensure that the most important specimens remain available to future generations of recorders.

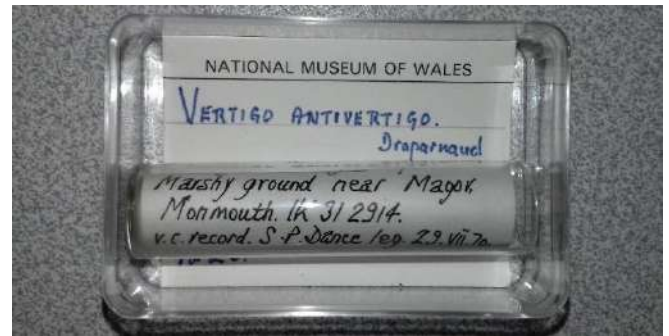


figure 3: A voucher specimen for a new VC record – in 1970.

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Note to the Editor: Slug bait.

There has been widespread concern over recent years about the long-term effects of metaldehyde-based slug baits. Alternatives now available are based on iron compounds – Ferramol is one such bait. It is suggested that these break down quickly and do not leave undegradeable poisonous residues which can build up in the environment to the detriment of predators (and humans too).

A problem with any slug pellets is that they may be indiscriminate and be taken by benign or beneficial species – such as *Limax maximus* which includes pestilential slugs in its diet. The loss of a slug predator is hardly a way to control slugs.

I have tried a small-scale experiment with Ferramol. First, I put some pellets in a jar holding one full-grown *Limax maximus*. I am not sure if the slug tried any of the pellets but it certainly did not die. Either it refused to touch them or was not poisoned by them. Next I did the same with a specimen of *Deroceras reticulatum* – surely a target species if ever there was one. It died fairly quickly. Finally I gave the *Limax maximus* access to the poisoned slug in case it was happy to feed on the dead beast. Again, I am not sure how much, if any, it tasted but the result was the same – *Limax maximus* remained alive and well.

It would be interesting to hear if anyone else has direct experience of the effects of iron-based slug baits on this fine, large predatory species.

Mr C. R. du Feu,
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Image of ‘loping’ adult *Cepaea nemoralis*

Readers who remember Gordon Collet’s 2015 article ‘‘Loping’’ locomotion in *Cepaea hortensis* juveniles’ (*Mollusc World* 39:28–29), will be aware that this type of movement, where a contact ‘wave’ means that part of the foot is not in contact with the surface (as opposed to standard ‘crawling’) is fairly well known. Luke Wallace posted a photo of a trail left by a ‘loping’ adult *C.nemoralis* and has given us permission to reproduce it here. Luke comments: -

‘I did crop the image to include the trail as I thought it was interesting - incidentally, the patches only became visible with the flash of the camera... It was taken on 15th March [in Luke’s garden in Kent].’



(photo: © Luke Wallace)

In March 2010 a dense population of the gastropod *Akera bullata* was discovered in a settling pond receiving outflow from a marine aquarium at Dunstaffnage Marine Laboratory near Oban in west Scotland (Craik 2012). In September 2011 the pond was drained and renovated without warning, and its contents were unfortunately lost. However, about one hundred medium-sized *Akera* were rescued from the diggings and the resulting population was maintained in captivity at the aquarium in tanks of flowing sea water from September 2011 to May 2017. The ultimate aim was to re-establish the pond population. During this time the *Akera* bred successfully in the tanks and large numbers of eggs and small young were regularly returned to the pond. For years they did not survive there, probably because the pond had not redeveloped the silty bottom and the strong growths of filamentous green algae that seem to be needed by growing *Akera*. However, by May 2017 a self-maintaining population had appeared in the pond. All the captive *Akera* were then moved to the pond and captive rearing in aquarium tanks was stopped. The pond population was still numerous at the time of writing (March 2018) although individuals were much smaller than in 2010-2011.

Throughout most of this period, the captive population mated and laid eggs copiously in the tanks, but successful reproduction (judged by appearance in the tanks of very large numbers of minute young, just visible to the naked eye) occurred only once or twice a year, either in late summer, or in spring and again in late summer. Five tanks of various sizes were available, and the aim was to provide as wide a range of conditions as possible.

As part of this work, some of the newly-settled young that appeared in July 2015 were held in two rectangular tanks at different stocking densities from 5th August 2015. Initially the small tank held 174 individuals in 40.5 litres sea water with 5850 cm² underwater surface area, and the large tank held 26 individuals in 432 litres with 28,800 cm² area. Thus densities in the small tank were 174/40.5 = 4.3 indivs/litre

and 174/5850 = 0.0297 indivs/cm²; and densities in the large tank were 26/432 = 0.060 indivs/litre and 26/28,800 = 9.03 x 10⁻⁴ indivs /cm². So density in the small tank was greater than in the large tank by 4.3/0.060 = 72 times by volume and .0297/(9.03 x 10⁻⁴) = 33 times by area.

The *Akera* fed mostly by grazing on biofilm growing naturally on the tank sides and bases, but sparse natural growth in both tanks of green, finely filamentous algae provided other food. Within a few weeks the difference in size between these two groups was obvious and by 16 November 2015 (103 days) it was profound. On that date, samples of animals from each group were weighed after drying gently with tissue paper. The mean wet masses (number of individuals weighed) were: small tank 0.043g (7), large tank 4.16g (5) (figure 1). So those in the large tank weighed about 97 times as much as those in the small tank. By 24th January 2016 (172 days) the mean masses were 0.087g (10) and 5.40g (5), a difference of 62 times (figure 2).

Thus these two groups of the same age, three to four months since settlement, differed greatly in body mass and size. Availability of food, mediated though the 33-fold difference in grazing area available to each individual, seems the most likely explanation. However, this was not a replicated experiment, so quantitative data should be interpreted with caution. Conditions in the small tank, although crowded, were not thought to be cruel as the *Akera* grew slowly and appeared to behave normally. As in all the tanks, they mated and laid eggs, and very small numbers died or escaped. Egg batches taken from each tank on 6th May 2016 also differed greatly in size (figure 3). By this date the body mass difference was smaller: small tank 0.60g (21), large tank 7.34g (16), a difference of 12 times. It was not established if egg batches from either group were fertile.

Reference

Craik, Clive (2012). The many faces of *Akera bullata*. *Mollusc World* March 2012 28: 6-9.



figure 1: *Akera bullata* of the same age (c. 4 months since settlement) reared at two different densities for 103 days (see text). Seven small individuals are from the small tank, and five large individuals are from the large tank. 16th November 2015.



figure 2: Two *Akera bullata* of the same age, reared at different densities for 172 days, from small tank (left) and large tank (right). 24th January 2016. Bar = 1 cm.



figure 3: Egg batches laid by *Akera bullata* of the same age but different sizes: three small batches from small tank, and two large batches from large tank (see text). 6th May 2016.

William Wood revealed

Eugene Coan

At the time the late Richard Petit and I published our paper about the life, publications and taxa of William Wood (1774-1857), we were unable to locate any image of the man himself (Coan & Petit, 2011).

Recently, I was contacted by a direct descendant of Wood who had been directed to our paper by another direct descendent, Mike Palmer. She is Catherine Swann who lives in Canada, a 3rd great granddaughter of William Wood through his son George.

The portrait, 5.25" by 4.25" (figure 1), is said to have been painted by William Daniell (1769-1837) who illustrated some of William Wood's books and whose family became intertwined by marriage with the Wood family.

Wood was the author of many natural history books. For malacologists, the most important were *General Conchology* (1814-1815; reprinted 1835), and the *Index Testaceologicus* (1818, 1823-1825, 1828).

Reference

Coan, E.V. & Petit, R.V. (2011) The publications and malacological taxa of William Wood (1774–1857). *Malacologia*, **54**(1–2):1–76.



figure 1 (right): William Wood. Catherine Swann collection (ex Bill & Naomi Converse collection).

In June 2007 I discovered *Monacha cantiana* at Aberlady in East Lothian. This is quite a rare and local species in Scotland, and this was the first Scottish record south of the Firth of Forth. Otherwise it occurs at a few sites in Fife, and just one or two places elsewhere in Scotland. A few weeks after discovering *M. cantiana* in East Lothian, my wife and I were on holiday in the far north of Scotland, and having arrived at Golspie, on the east coast of Sutherland, in good time, we took a walk by the sea before dinner. We hadn't gone far before I just avoided stepping on a fine specimen of *M. cantiana*. This was a surprise, being so far north, and a long way from the nearest population of this species; nevertheless, it is recorded in the Atlas (Kerney, 1999) as being present in East Sutherland. Thus I might not have thought any more about this, had not my attention been drawn to the activities of one William Baillie by Ian Evans, and all-round naturalist who lives in Sutherland.

The name of William Baillie is probably almost forgotten these days, but in the latter part of the 19th century he made considerable contributions to our knowledge of the flora and fauna of the Far North of Scotland. By profession he was the schoolmaster at Brora, on the east coast of Sutherland not far north of Golspie. This seems to have left him plenty of time to pursue his interest in natural history (Anon, 2006). He first studied the botany of the area, following that up by recording seaweeds. Then he transferred his attention to geology and fossils, followed by moths and butterflies. In all cases he made extensive collections. He travelled widely in Sutherland and Caithness, going by train to remote stations (and some stations are extremely remote in those parts) and then somehow covering great distances by his own efforts, apparently tramping across miles of bleak moorland in many cases.

Latterly, Baillie devoted his efforts to the study of both marine and non-marine molluscs, and described some of his findings in the *Journal of Conchology* (Baillie, 1882), and presented numerous specimens to the Conchological Society's collection (Anon 1890, 1893). What Baillie did next is most interesting, and most relevant to this story. Having established which species of non-marine molluscs were present around Brora, in 1883 he introduced colonies of various snails not hitherto present (Baillie, 1884). This is a practice that would be frowned upon these days, and would probably be illegal, but it was a common enough practice in the 19th century. It should also be remembered that this was an era in which there existed 'Acclimatisation Societies', which aimed to introduce British species to the colonies, to make the settlers feel more at home, and to provide quarry for hunting and shooting. A list of the species introduced to the Brora area by Baillie is given in the Table (table 1). Baillie seems to have made a series of introductions, as he mentioned only four species in 1884, but the progress of several other species is reported in later years (Baillie, 1887, 1889). The final follow-up seems to have been in 1888.

Several of the introductions seem to have died out quite soon; this is hardly surprising for a species such as *Pomatias elegans*, which requires such a high level of lime in its habitat. *Lymnaea stagnalis* was reportedly 'picked by birds'. Similarly, *Cornu aspersum* was probably 'killed out by Blackbirds'.

What of the species that Baillie recorded as still surviving in 1888? *Clausilia bidentata*, *Cochlodina laminata*, *Balea biplicata*, *Cochlicella acuta*, *Helicella itala* and *Theba pisana* have presumably disappeared completely, though considering the low intensity of recording in Sutherland, it does not seem impossible that some of these might have survived, unnoticed, for well over a century. Even in parts of Scotland which are much more highly populated, and therefore probably more intensively recorded, it is possible to rediscover species that have not been seen for a very long time, simply because no-one has looked (Sumner, 2015). There are, however, three species introduced by Baillie that are still present in the area. *Cerņuella virgata* was 'abundant near the sea' at Brora in 1888, and as this species has a sparse and local distribution in Scotland, it seems reasonable to suppose that the present-day populations are derived from the snails introduced by Baillie. Small numbers of this snail can be found southwards to Golspie, but the main concentration is by the sea at Brora (figure 1), apparently just where Baillie reported it. This species is also common a little further south down the coast at Dornoch, and it is possible that these could be derived from the introduction at Brora.



figure 1: The sandy bank at the mouth of the Brora River, part of the area where *Cerņuella virgata* was reported by Baillie as flourishing in 1888, and still occupied by this species in 2016.

Monacha cantiana has a good population at the south end of Golspie (figure 2). This is a few miles down the coast from Brora, where I have only ever found a single shell, in spite of searching what seemed to be suitable habitat on a number of occasions. In the Atlas (Kerney, 1999), *Monacha cantiana* is shown as being present in the 10 km square that includes Brora, but not the south end of Golspie, with a date for the first record of 1975. Although it could be that the Brora population died out, and a separate population from an unknown source happened to arrive at Golspie, the most parsimonious explanation must be that the snails introduced

at Brora migrated down the coast and thrived there while largely dying out at the original site of introduction.



figure 2: Coastal grassland at the south end of Golspie, the site where *Monacha cantiana*, presumably descended from those introduced by Baillie in the 1880s, was still living in 2016.

The third species that Baillie introduced, that was still present and breeding in 1888 and is still there today, is *Trochulus striolatus*. This is a species that has extended its range in Scotland considerably over the last century or so, and Kerney (1999) gives a date of 1974 for the first record of this species in East Sutherland. A century or so ago it was unknown north of Perthshire (Roebuck, 1921), but is now widespread up to the north coast of Scotland. However, Roebuck also records an unconfirmed report of *Trochulus striolatus* in East Sutherland; could this have been a descendant of the snails introduced by Baillie?

In conclusion, two of the species introduced by Baillie, *Ceruella virgata* and *Monacha cantiana* are still present on the east coast of Sutherland, and are almost certainly the descendants of the original introductions. The situation with *Trochulus striolatus* is less clear, but it too may have survived there for the best part of a century before being submerged in a general spread of this species from the south. How many other populations of snails in the British Isles might be derived from deliberate introductions? Many such introductions are recorded in the older literature, including the *Journal of Conchology*, and it might be of interest to extract such records and determine if the relevant species have survived.

References

- Anon. (1890) Proceedings. *Journal of Conchology*, **6**, 272.
- Anon. (1893) Proceedings. *Journal of Conchology*, **7**, 168, 171–173.
- Anon. (1890) Proceedings. *Journal of Conchology*, **4**, 272.
- Anon (2006) 100 years ago. *Northern Times*, 8th December 2006.
- Baillie, W. (1882) Sutherland and Caithness field-notes. *Journal of Conchology*, **3**, 297–299.
- Baillie, W. (1884) Colonizing land shells in East Sutherlandshire. *Journal of Conchology*, **4**, 160.
- Baillie, W. (1887) Colonizing land and freshwater shells in East Sutherland. *Journal of Conchology*, **5**, 192.
- Baillie, W. (1889) Colonizing land and freshwater shells at Brora, East Sutherland. *Journal of Conchology*, **6**, 15.
- Kerney, M. (1999) *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*. Harley Books, Colchester.
- Roebuck, W.D. (1921) Census of the distribution of British land and freshwater Mollusca. *Journal of Conchology*, **16**, 165–211.
- Sumner, A.T. (2015) Rediscovering lost snails. *Mollusc World*, No. 38, pp. 29–30.

table 1: Species introduced to Brora by William Baillie, and their fate.

Species	Common name	Baillie's reports	Present status
<i>Pomatias elegans</i>	Round-mouthed snail	Lost by 1888	Absent
<i>Lymnaea stagnalis</i>	Great pond snail	Lost by 1888	Absent
<i>Tandonia sowerbyi</i>	Keeled slug	Lost by 1888	Absent
<i>Cochlodina laminata</i>	Plaited door snail	Still living 1887	Absent
<i>Clausilia bidentata</i>	Common door snail	Still living and breeding, 1888	Absent
<i>Balea biplicata</i>	Thames door snail	Present at several sites, 1888	Absent
<i>Testacella haliotidea</i>	Shelled slug	Lost by 1888	Absent
<i>Ceruella virgata</i>	Striped snail	Abundant near the sea, 1888	Common in 2016
<i>Helicella itala</i>	Heath snail	Still living 1884	Absent
<i>Cochlicella acuta</i>	Pointed snail	A few surviving, 1888	Absent
<i>Monacha cantiana</i>	Kentish snail	Still living and breeding, 1888	Present at Golspie, 2016
<i>Trochulus striolatus</i>	Strawberry snail	Still living and breeding, 1888	Present, 2016
<i>Theba pisana</i>	White snail	A few still surviving, 1888	Absent
<i>Cornu aspersum</i>	Garden snail	Lost by 1883	Present, 2016

The shagrug sea-slug and the hungry dog

A nod to Kipling's genius in telling wildlife stories

Christine Storey

This is a tale, Oh Curious One, of a marvel of the sea.
A tale of life not easily guessed by you, your dog or me.
The tale starts small, as all tales should without a lot of fuss.
A baby hatches from an egg laid out of sight of us.
The gently rolling ripples under April's chilly sun,
Bring briny wholesome sea food to our teeny weeny one.

The hatchling joins the other tiny babes without a clue
Of where its salty watery home is going to take it to.
So out to deepest ocean blue our hatchling rides the tide
And in amongst the plankton baby sea-slug learns to hide.
Our hatchling eats and plays and grows till adulthood is reached
Then swims with tidal waters back to find a nearby beach.

Now fully grown our hungry slug prowls rock-pool sides for meat
Wondering if beadlet anemone is good enough to eat.
Oh Curious One, have you ever seen the teasing beads of blue
Amongst the rose-brown tentacles luring me and you.
Beware, My Friend, these jelly arms are not a welcome lunch
For each will fire a poisoned barb at those who dare to munch.

Our handsome slug these days looks like a shaggy lumpy rug,
A hairy coat of tentacles adorns our grown-up slug.
A speedy advance (in sea-slug terms) towards the beadlet blue
May not be wise for dog nor slug, nor is it wise for you.
Ah here the tale is strange indeed, Oh Curious One, dear me,
For shagrug sea-slug bites and eats beadlet anemone.



figure: The shagrug or grey seaslug *Aeolidia filomenae* (see also the Marine Recorder's Report on page 4) in a few cm of water on low spring tide, Portland Harbour, Dorset, 2010).

(photo: © Malcolm Storey, bioimages.org.uk).

A few short hours is all it takes and sea-slug does not swoon,
No sign of shock as sea-slug eats the poison tipped harpoons.
For sea-slug oozed a recipe of mucous and of slime
To stop those hurtful poisoned darts firing just in time.
And as the sea-slug swallows hard; they go inside its gut,
Although, inside their jelly, all the darts stay safely shut.

Canny sea-slug has a trick, an odd and clever thing.
Its tentacles absorb the dart, still primed when touched to ping!
Your dog observes a tasty snack upon the rock pool's sides,
A hairy jelly morsel there to catch before it hides
But as he eats he yelps and spits out sea-slug in the end.
Shagrug's stolen armour is no made-up tale my friend.

February 2013

New: a monograph on Arthur Morelet *Netherlands Malacological Society*

Those who are working with non-marine molluscs may have encountered the name of Morelet. He introduced more than 700 species names in (currently) 84 different families of land and freshwater molluscs. Who was Arthur Morelet and what has become of his huge collection?

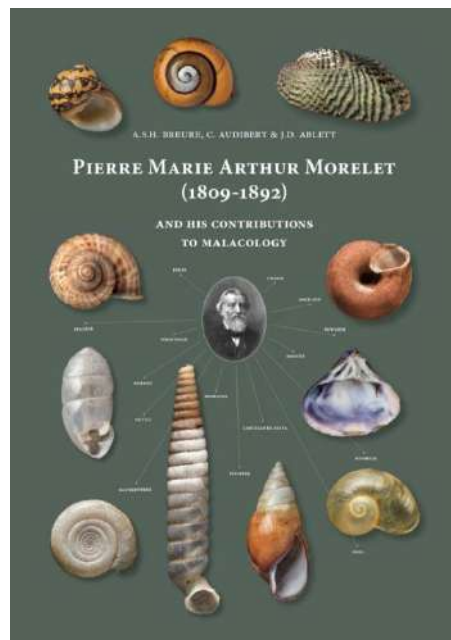
Pierre Marie Arthur Morelet (1809-1892) was an amateur scientist who devoted himself to both shell collecting and botany. He organised several expeditions, of which those to Cuba and Central America (1846-1848) and the Azores (1857) are especially noteworthy. His contributions to malacology were thus significant and we have reconstructed his legacy with a survey of archival sources and his type material in the historical collections of several museums.

The resulting monograph is made up of two parts. In the first part we present a biography, some remarks on the whereabouts of his collection, and more than 200 recovered letters (transcribed and translated) to contemporary malacologists, such as Crosse, Fischer, Baudon and Dautzenberg. His contact network has been reconstructed using data from his correspondence and his publications. This part offers a unique view into the world of malacology in the second half of the 19th century. In the second part a bibliography of Morelet is presented, as well as all his newly introduced taxa, with detailed documentation and figures of the species. More than 80 per cent of his type material has been re-found and original figures, if they exist, have been reproduced for the remaining species. Of the taxa represented by actual shell material, more than 150 are now figured for the first time. The book has indices for both taxonomy and persons mentioned and is a must-have for anyone interested

in the history of malacology and those dealing with non-marine molluscs.

The book, which has 544 pages and more than 1300 figures, was launched on 23rd June 2018. Thanks to financial support from Association Cernuelle (France), Royal Belgian Institute of Natural Sciences (Belgium), Natural History Museum (United Kingdom), and the Netherlands Malacological Society (Netherlands), the electronic version of the book is freely available at www.spirula.nl/andere-uitgaven/moreletEN.

A print on demand hard cover version of the book can be ordered at www.boekenbestellen.nl (search for title or ISBN) for € 67.50 (net price, excl. postage).



Breure, A.S.H., Audibert, C. & Ablett, J.D. (2018). *Pierre Marie Arthur Morelet (1809-1892) and his contributions to Malacology*. Netherlands Malacological Society, Leiden, 544 pp. ISBN 978-90-815230-2-8 (PDF) / 978-90-815230-0-4 (p.o.d.)



figures 1 & 2: Chris du Feu with pupils (and a slug specimen) at Didcot Girls' School. (photos: Laura-Jane Carter)

Didcot Girls' School was planning a number of activities as part of British Science Week and one of us (L-J) wanted to do something related to conservation. The solution was to contact the other of us (CdF) – a much older first cousin once-removed who had (perhaps rashly) offered to help in her teaching career if he ever could. It had to be slugs because of CdF's area of expertise and because it would be an unusual subject to look at. Here was a problem – most people are not keen to conserve slugs; most often it is the opposite. The only direct move to protect declining native species is to conserve ancient woodland. This is not a possibility within the confines of the school campus. A fall-back position was, therefore, to look at the business of species recording which is one of the vital, but unsung, foundations of species conservation.

There is, amongst the general public, remarkably little awareness of species recording: the networks of recorders and societies, the existence of published atlases, the availability of distribution maps from the NBN Atlas, the mechanisms by which records from the field pass up through the system until they reach some national collection as fully validated records. Likewise, there is little appreciation of the simple, basic requirements of a record – What, Where, When and Who. In spite of GPS technology (or because of it) there seems to be a general lack of awareness of OS co-ordinates and a belief that a postcode will give a precise location.

One the face of it, making a species record may not seem as exciting or valuable as digging a pond, planting oak trees or rescuing a hedgehog. However, there is the instant gratification of finding a new 'dot for the map' and long-term satisfaction of seeing 'your dots' on the map, confident in the knowledge that the dots will be there forever.

The plan of action? Warn the girls in advance, engage in slug collection around the campus and at home. Bring the specimens in on the day, clearly labelled with location. We arranged two lessons with junior classes, a mid-day workshop (part of a wider array of science week biological activities)

and an after school junior science club. The aim in the lessons was to inform the girls about biological recording in general, to give basic information about slugs and to introduce them to the four major groups present in the country. After that, look at the specimens collected and let the girls try to identify the groups to which they belonged). Identifying to species level is far too tricky to hope to deal with in a single lesson but identifying the major group is fairly straightforward and a first step in the general method of species identification through keys. The mid-day workshop was productive – more intensive examination of specimens with smaller groups. The after-school science club was most productive of all; not surprising with enthusiastic volunteers, almost none of whom had been in the earlier lessons. The same pattern as with the classes but with noticeably more perceptive questions.

High spots? I had shown a sequence of distribution maps of *Ambigolimax valentianus* over the last 30 years so they were aware of its recent arrival, rapid spread and under-recorded state. It was very pleasing to find specimens from several places, all providing more dots on the map. *Limacus maculatus* was abundant – the only abundant large slug we found. The large number of specimens gave opportunity for close examination of individuals and an opportunity to see how their patterns varied individually. *Arion ater*, happily one large enough to demonstrate its rocking behaviour, was found and it contrasted with the *Arion rufus* which (as expected) did not perform. And the low spot? Didcot sits at the southern edge of a 10km square which has no *Arion ater* records shown on the current NBN map. The girls were keen to have that gap plugged. Alas, our only Didcot *Arion ater* – the rocker – was collected just south of the campus but firmly in the 10km square to the south. Still, it is motivation for the future. One specimen of the native terrestrial flatworm *Microplana terrestris* was collected, being mistaken for a small slug. An excellent record – this widespread species is even more under-recorded than any widespread slug.

The outcomes? An instantly measurable outcome is the 62 records which will go to the Conch. Soc. recording scheme. More importantly, the seeds of biological recording have been sown in the minds of potential, enthusiastic recorders. Some members of the junior science club, filled with enthusiasm for this much-underrecorded taxon, have already started searching in their gardens for species they can identify. We hope that some will continue recording in the long term.

E. W. Swanton: conchologist and museum curator at Haslemere, Surrey

June Chatfield

Expanded from a talk at the Conchological Society's meeting at Haslemere Educational Museum, 21st November 2015.



E. W. Swanton.

figure 1: (a) E. W. Swanton around the time of his Conchological Society presidency (aged about 50) (photo: Has. Ed. Mus.); (b) Signature (c.1912) (photo: P. Topley).

Introduction

Few members of this society are likely to have known of E. W. Swanton although he served as President in 1922 and published in the *Journal of Conchology*, while his name is still familiar at Haslemere Educational Museum where he dedicated over half a century as Curator, but even there it does not immediately trigger the word conchologist.

Ernest William Swanton (1870-1958) joined the Conchological Society of Great Britain and Ireland in 1895: the *Proceedings* in the *Journal of Conchology* (Vol. 8) show that he was proposed on 18th August 1895 and elected a member on 4th September 1895 at meetings held in Manchester Museum. Swanton collected British non-marine shells, was President in 1921-2 and remained a member until his death in 1958 (figure 1). There was a brief obituary in *The Journal of Conchology* (Ellis, 1959). However, he was best known nationally and locally for his role as naturalist and local historian, as the first Curator at Haslemere Educational Museum (Has. Ed. Mus.) in west Surrey and as the author of well-regarded books on molluscs, fungi, plant galls and local history (Swanton, 1906, 1909, 1912 and Swanton and Woods, 1914). He contributed 'Museum News' regularly to the local newspaper (*Haslemere Herald*) which forms a valuable archive to activities and accessions at the museum today and some of his newspaper articles on natural history were collated in a book *Country Notes and a Nature Calendar* (Swanton, 1938), while approaching retirement he wrote a history of the museum (Swanton, 1947). Swanton was also an active

member serving as Curator of exhibits from 1904, Secretary (1917-1934), Treasurer (1917-1947) and President (1935-1937) of the Haslemere Natural History Society that was, and still is, based at the museum (Puttick, 1988). Mrs Swanton was also listed on the Council in 1917. Weekend duties made it difficult for him to attend other Society meetings outside Haslemere and his low income was probably a limiting factor too (acknowledged in his obituary in the *Haslemere Herald*) but, as the museum's mollusc collection shows, he was actively engaged in non-marine field work in his spare time in the Haslemere area and on holidays in the west country and Isle of Wight. He published a number of papers in *The Journal of Conchology* including on the molluscs of Somerset (Swanton, 1898), Wiltshire (Swanton, 1908), Sussex (Swanton, 1915) and later, a county monograph for the Somerset Archaeological and Natural History Society, Taunton (Swanton, 1912) in which he elaborated on the relationship between habitats and non-marine molluscs that reflected his experience in the field.

The Census entries available online (Ancestry and Find My Past) fill in details of our knowledge from published obituaries on aspects of his life up to about 1911 although some of the dates of birth given are not accurate. The 1871 Census shows that he was born at Manor Farm, Dibden in the New Forest (28th June 1870), the first son, but third child, just before his father William Swanton, a farmer, moved back to his home village of Bratton Seymour/St Maur in east Somerset where the Swanton family had farmed for 300 years.

Swanton came to Haslemere in 1897, officially retired in 1948, spent a few more years living in Museum Cottage but during the last years of his life from 1954 resided at 3 Derwent Road, Whitton, Twickenham, Middlesex, the home of his niece and her husband, where he died on 21st October 1958, aged 88: his niece's husband Leslie Gilrow was executor (probate details online). Swanton's health was already in decline when he and his wife Annie left Haslemere and she pre-deceased him in 1957. It is doubtful whether Swanton attended any of our society meetings. Swanton was an Honorary Associate of the Linnean Society of London from 1920 and honoured for his work in Haslemere Museum with an MBE in 1936 and an OBE in 1948 (Kane, 1995). According to his wishes there was no funeral as his body went to medical studies, perhaps influenced by Jonathan Hutchinson, the museum's Founder who was in medicine. He and Annie had no children and both devoted their lives to the museum, she as Librarian and also a helper in the educational work with children and the museum's novel 'Museum Examination'.

Swanton in Somerset

The 1881 Census shows Swanton's father, William C Swanton, aged 43 as a farmer of 200 acres, employing two men and a boy. Ernest was then 10 and a scholar (i.e. at school). He had two older sisters who featured in 1871, but in no subsequent Census at the family farm: two younger brothers were both born at Bratton Seymour/St Maur, Edward and Albert Swanton, and by the 1891 Census they were recorded as farmer's sons (aged 20 and 18) so would be working on the family farm. Ernest Swanton had left and was probably away school teaching: he did not follow his father into farming. Like two other nineteenth century naturalists

and writers who were both born on farms, Richard Jefferies (in Wiltshire) and W H Hudson (in Argentina, South America), Swanton sought a future elsewhere connected with natural history. Neither Jefferies nor Hudson had robust health, and this may have been the case with Swanton too. Details of his education and early teaching career is given in the obituary of the *Haslemere Herald* (October 1958): he had a good education at private schools at Wincanton and Clifton, Bristol before Bruton Grammar School, mostly as a day boy. From there he went into school teaching in Gloucestershire, Romsey Grammar School, Hampshire and Doddington College, Swale in east Kent where, like Jefferies before him he talked to gamekeepers, poachers, woodmen, shepherds and gypsies. In his home area he was fortunate to join the Wincanton Field Club and this gave him entry to publishing short papers in their journal and setting up a natural history display in the Parish Room to support a field meeting on the farm in 1896: doing this led him to seek his future in museum work. He heard about the opportunity at Haslemere from a friend that would appear to be Mr J. H. Ponsonby-Fane (normally known under the surname Ponsonby), a Conch. Soc. member since 1886 whose family estate at Brympton was near Yeovil in Somerset where he had been studying molluscs (Ponsonby, 1884) and recorded in his obituary as working in banking in London (Melvill, 1917): here he might have been in contact with Hutchinson, while another branch of the Ponsonby family had an estate near Haslemere.

Specimens collected in Somerset are in the current collection at Haslemere Educational Museum as incorporated in a British reference collection of shells that Swanton set up in a large cabinet, where they still are (figure 2). In his last paper on Somerset shells (Swanton, 1912) he gave much attention to the habitats of the snails and species assemblages, long before the classic papers of A E Boycott in the 1930s. Many of his Somerset notebooks were given to Taunton Museum and he made a comment that they did not have a shell collection. The collection at Haslemere indicates, through dates of collection, usually in June or July, that he often took his holidays on the family farm or at least in the west country, continuing his interest in recording Somerset non-marine shells.



figure 2: Drawer from the Haslemere Museum British reference collection of shells with specimens collected by Swanton.

Swanton as conchologist

Swanton joined the Conchological Society of Great Britain and Ireland in 1895, aged 25 and so brought existing enthusiasm and expertise in non-marine shells to Haslemere Educational Museum two years later. This interest appears to have dated to his school days and childhood on the farm. Most of his field work and collections indicate Swanton's active period in the field to be from the 1890s to the mid-1920s, after which extensive museum exhibition duties and setting up in a new building intervened. During this time he wrote several papers in the *Journal of Conchology* including an account of a

visit he made to South Africa with Dr Jonathan Hutchinson, the Museum's Founder who was investigating leprosy (Swanton, 1905), on slugs and potatoes (Swanton, 1905) and on Colonel George Montagu (Swanton, 1908). Archive letters in the Museum show that he corresponded with prominent Society members such as J. W. Jackson (then Hon. Secretary) and Fred Taylor, who also joined in 1895 and was brother of founder member J. W. Taylor. Some of Swanton's records are included in J. W. Taylor's monograph on land snails (Taylor, 1894-1921). The acknowledgements to his book *A Pocket Guide to the British Non-marine Mollusca* (Swanton, 1906) gives details of his conchological network including Messrs Adams, Allchin, Brockton Tomlin, Chaster, Collinge, Hobson, Hoyle (figure 3), Wallis Kew, Santer Kennard, Oldham, Edgar Smith, R. Standen (founder member), F. Taylor and geologist B. B. Woodward. He also expressed special thanks to Charles Pannell of Haslemere for loan of specimens and many books.

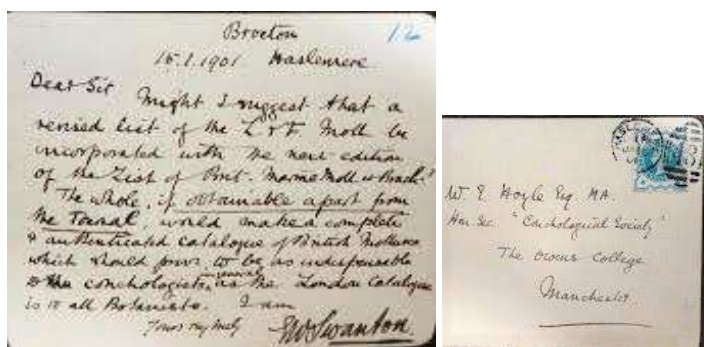


figure 3: Letter and envelope to Dr Hoyle from E W Swanton (Conchological Society archive). (Photos: Brian Goodwin)

Charles Pannell was a member of the Haslemere Microscope and Natural History Society, as were his parents; he also joined the Conch. Soc. in 1900 and was also a member of the Malacological Society of London and seems to have had the role of resident Haslemere non-marine conchologist already before Swanton arrived. Pannell's father was a shoemaker and dealer (listed in Kelly's Directory for Surrey, 1899) and, living in 13 East Street, Haslemere not far from the museum: his conchologist son continued with this business (1911 Census). Like Swanton, Charles Pannell junior married but neither had children. The museum published his *Molluscs of the Haslemere Area* (Pannell, 1903) and he later published an account of the molluscs of Surrey in the *Journal of Conchology* (Pannell, 1902 and 1903). Might there have been some territorial boundary between these two such that Swanton focussed his publications on molluscs outside Surrey? About the same age as Swanton, Pannell last appeared on the Conch. Soc. membership list in 1912.

By post, Swanton shared an interest in molluscs from archaeological sites with Dr J. G. Jackson (Hon. Secretary) and Herbert Toms of Brighton, an aspect of conchology that has since become an important discipline in archaeology today, promoted by various recent and current members of the Society such as Mike Allen, the late John Evans, Jan Light, Janet Ridout Sharpe, Elizabeth Sommerville and Tom Walker. Swanton's interest in edible molluscs, marine and terrestrial may have come from the help he gave Herbert Toms of Brighton and Hove Archaeological Society in identifying shells from excavations from 1911-1912 and this may have triggered an interest in edible molluscs that was to be the subject of his Presidential Address (Swanton, 1923).

In a chapter on 'Hedgerow & Woodland Snails' in *Country Notes*, culled from his articles in the local press (Swanton, 1938), he recalls: *It was my 'fortunate destiny' early in life to*

become an acquisitive shell collector. He had books by Tate (1866), Rimmer (c.1880), and Harting's Rambles (Harting, 1875). Always with an eye for the unusual, he refers to a specimen of the common garden snail (*Cornu aspersum*) with an elongated spire, a genetic form that interested another of the older Conch. Soc. members, the late A. W. Stelfox in Ireland who bred them. Roman snails (*Helix pomatia*) were also of interest to him finding them when he was at Doddington in Kent (specimens in Haslemere Museum). Unfortunately, the Neolithic record that he refers to is now regarded as erroneous, and this species is now listed as a Roman introduction rather than native. *Helix pomatia* were bred at the museum in Haslemere and he attempted to introduce them to Epsom, Surrey and North Dorset, but without success. In captivity at Haslemere he would have had to supply chalk in their diet as the soil around the museum is acidic Hythe Bed sandstone.

Some time ago the museum Library team put on my desk two box files of letters and pamphlets related to Swanton. Some were reprints signed by the authors, so one picked up something of his conchological network including people like A. E. Boycott the pioneer on snail ecology, some were species lists, printed labels, lists of varieties of the larger helicids (a popular item to collect in those days) and letters from conchologists, emphasising the importance of correspondence at the time before general use of the telephone and advent of internet and e-mail. In those days the *Journal of Conchology* was of smaller size and came out in slim parts several times a year and there was no newsletter or magazine. In the early days of the Society the focus of meetings was in the north of the country at Manchester and Leeds with only occasional ones in London that would have been more easily accessible from Haslemere on the fast London (Waterloo) to Portsmouth railway line. There is reference to a London branch in the *Proceedings* for 1898 but attendance was small. Apart from Pannell, Swanton is unlikely to have had local conchologists with whom to share the interest and at Haslemere he tended to be in the lead role as museum curator. Swanton's conchological papers were faunistic, essentially field work to add to the non-marine Census, then with the Vice-county as the recording unit, but he was also interested in the biology of snails used in his teaching at the museum.

The letter from J. W. Jackson inviting Swanton to be President is in the Museum, shown in figure 4 – a pencil note on it explains that it was retained as an example of hand writing of conchologists. In this letter, it was recognised that he would find meetings in the north of England difficult and was only expected to chair the AGM that could be in a location of his choosing – London. At that time the Museum was on the track of new premises, the large house on the High Street thanks to the fund-raising of Sir Archibald Geikie, where it is today, so Swanton's time for extramural activities was increasingly limited, especially at weekends. As things worked out (*Proceedings*, 17: 25-30), he was not able to attend the AGM at University College, London when the Chair was taken by A. E. Boycott who read his presidential address, *The Edible Molluscs of the British Isles*: this was duly published in the *Journal* (Swanton, 1923). Although his passion was for non-marine molluscs, an interest in marine shells was needed for museum work with collections and in assisting identification of archaeological material. Much of the background on edible molluscs came from a book in the museum (Lovell, 1884) but some of his own experiences are included too.

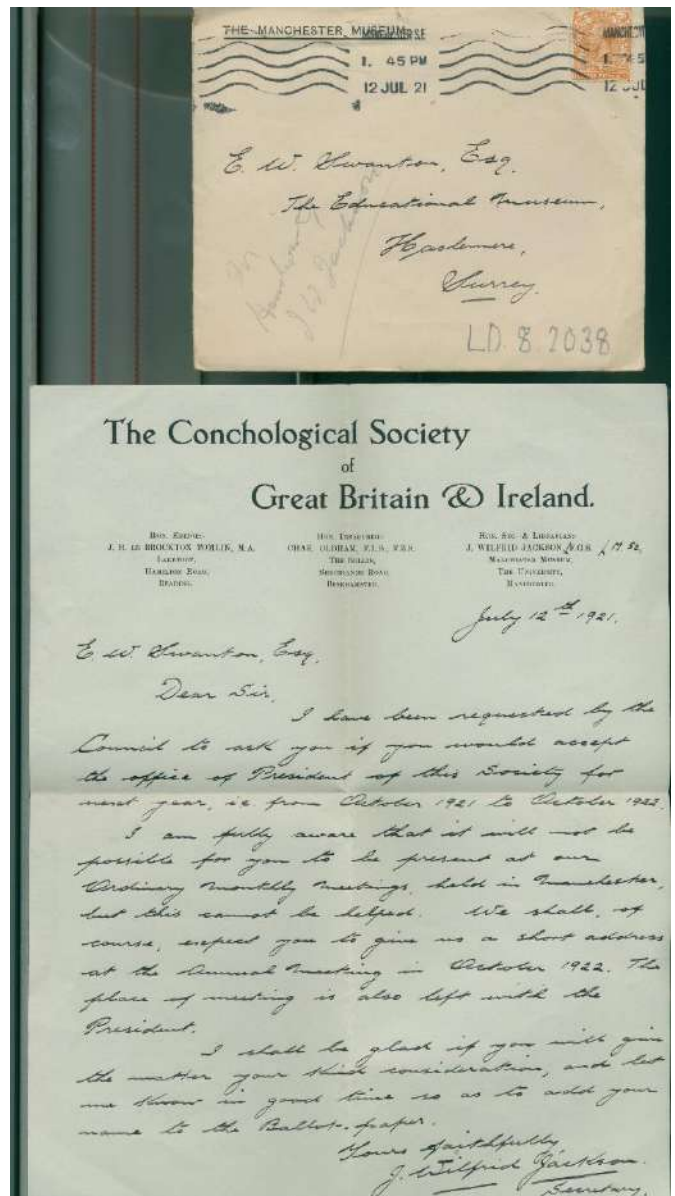


figure 4: Letter from Dr Jackson inviting Swanton to be Conchological Society President. (Photo courtesy: Has. Ed. Mus.)

Swanton's collections around Haslemere

Details of these can be found in the British reference collection and as annotations in his 1906 guide to snails. One copy of this in the museum library has inscribed on the front cover in Swanton's hand "marked with references to the Museum collection in the large cabinet". The shells are still in the same cabinet as Swanton arranged them. It also incorporates the collections of others such as the Rev Eyre of Swarraton, Hampshire and Frederick Townsend, author of the first Hampshire Flora. Swanton's Haslemere localities included Valewood, Lowder Mill, Boundless Water, Three Gates Lane (alongside the museum), Witley and the Devil's Punchbowl, Hindhead. Much of the area is on acid bedrock of the Lower Greensand so not particularly rich in shells, but the use of lime-cemented Bargate stone in local walls, as at Three Gates Lane, Haslemere, provided opportunity for the Lapidary Snail (*Helicigona lapicida*) with a thicker, keeled shell. Less acid clays exposed along the spring line below the acid sands provide pockets of opportunity to find land snails. One of these is the Devil's Punchbowl at Hindhead that he visited in 1915 and a field meeting will be held here on 11th August 2018 (see programme) when we will follow in Swanton's footsteps a century later and see what else we can find.

Swanton as museum curator



figure 5: At the moat, 'Inval', Haslemere with Sir Jonathan Hutchinson (far left) and E.W. Swanton (far right), 1901.

(photo: courtesy Has. Ed. Mus.)

Haslemere Educational Museum was originally set up in 1888 by Sir Jonathan Hutchinson, a medical man from London, who had bought land at Haslemere and built a home 'Inval' on the outside of town. Here, using outhouses, he made his collections available to the visiting public and set up popular lectures and demonstrations at weekends. The Haslemere Microscope and Natural History Society, also started in 1888 and soon based itself at the Museum with Hutchinson becoming President (figure 5). E. W. Swanton was also President at a later date. School group visits were part of the work of the museum from the time that it moved to Museum Hill off East Street when a Curator (Swanton) was appointed to include visits on weekdays. Hutchinson set up a Museum Examination in 1889, another novel idea, with several generations of children taking part during the whole of Swanton's time as Curator. Talks to adult groups took place on Sundays. Around Haslemere and Hindhead were many intellectual people, writers, artists, crafts people and scientists moving to the Surrey hills from about 1890–1910, outlined in *The Hilltop Writers* (Trotter, 1996) and many of these were associated with the Museum and Natural History Society and Swanton is included in the book. The novelist George Elliot became a member of the Natural History Society during her stay at Shottermill near Haslemere where she was working on her novel *Middlemarch*. In 1895, as the collections expanded, land in the town off East Street owned by Hutchinson was used and some simple wooden buildings were set up for the museum, making public access easier: this location was later known as Museum Hill (figures 6 and 7): a modern block of flats, Museum Court, now stands on the site. To curate the collections and extend opening times, Hutchinson appointed a Curator, E. W. Swanton, then a young man and keen naturalist. In *A Country Museum* (Swanton, 1947) is an account of this.

'In the previous year [1896] the success of a temporary museum I had arranged in a remote Somerset hamlet made me wish to become a museum curator in a country town or large village. Having heard from a friend that Dr Jonathan Hutchinson was wanting a curator for his museum at Haslemere I wrote to him at once, and within two or three days received a letter in which he informed me that he wanted zealous help in connection with his museum ...'

Hutchinson then went on to explain that there was: 'a great deal of work on Sundays'. This was then the only day of leisure that most people had off work and the museum was aimed at educating and entertaining the ordinary working

person too. Swanton went on to recall that: 'A few days after my return home [from interview] I received a letter in which he offered me the post of curator. I gladly accepted it.' Swanton was also curator for a short while at the Medical Graduates College and Polyclinic at Chenies Street, London, another of Hutchinson's ventures and he had a third museum in his native Yorkshire that Swanton was asked to help with in 1898. Another paper in the *Journal on the molluscs of Somerset* (Ponsonby, 1884) might indicate the friend to be J. Ponsonby of Yeovil (later known after his father died as Ponsonby-Fane (Melvill, 1947) who could be the link to Jonathan Hutchinson.

The obituary in the *Haslemere Herald* states that Swanton lived in Grayswood during his early years at the museum. Just three years into his Curatorship he married Annie Elizabeth Cobbold at Shaftesbury, Dorset in 1900: the 1901 Census gives her place of birth as Brackley, Northamptonshire and she was one year older than her husband. Their address at the time was 'Brocton' in College Hill, Haslemere (figure 8) where they had a 20-year old general domestic servant (Ann Kersley from Portsmouth) living in. The 1901 and 1911 Census gives details of this as a detached 7-room house and I have recently located it. Another Hutchinson property, the Swantons continued to rent 'Brocton' from the Founder's son Dr Roger Hutchinson until 1925 when they moved into Museum House and it was sold for £1,200. Details of the rental history were obtained from the Museum archives. It was interesting to see that they let the property during their summer holiday in 1914, a precarious time financially for them.



figure 6: Sir Jonathan Hutchinson in the courtyard of the old museum site off East Street, 1902. (photo: courtesy Has. Ed. Mus.)



figure 7: Galleries in the East Street museum, 1912.

(photo: courtesy Has. Ed. Mus.)



figure 8: 'Brocton' in College Hill Terrace where the Swantons lived for 25 years before moving to Museum House in 1925.

The Museum was based in wooden buildings on Museum Hill at the foot of High Street off the road to Fernhurst, now demolished, from 1897–1913 and later. Then a crisis hit for the Museum and Swanton when the Founder Sir Jonathan Hutchinson died on 23rd June 1913. In his will, the collection itself was left to the town, but not the premises or running costs so Swanton was given three months' notice. Hutchinson, however, had faith in the good people of Haslemere continuing with the museum, and that is what happened. The founding of Reading Museum has a similar history with a large shell collection left to the people of the town on the condition that it was housed and a museum and art gallery was built as an extension to the Reading Town Hall in the late nineteenth century.

At Haslemere, the Rector, the Rev. G. H. Aitken, organised a public meeting on the Museum's future which was well supported and he resolved to set up an endowment fund of £10,000; Swanton was given a reprieve. By 6th February 1914, Sir Archibald Geikie, retired Director of the British Geological Survey living in Haslemere, was Chairman of the committee set up to run the museum, a position that he held until his death ten years later. In 1914 the Museum vacated its old home for new temporary premises in East Street. Subscriptions were sought to pay for maintenance and the Curator's salary. Geikie was hard-working, a good administrator and fund-raiser who also, as a result of his geological career, had a high profile. However, six months later endowment plans were thwarted when World War I broke out on August Bank Holiday Monday 1914. During the 1914–18 War the Museum was very popular with soldiers stationed nearby and in 1921 visitor numbers were over 14,000. With the war over in 1918, Geikie was back to fund-raising, seeking support from incomers to the area and by 1924 they were in the position to search for a building to buy. 'The Lodge' in High Street came up for £3,500 and this was duly purchased in March 1925 (figure 9). Sadly Geikie, who had done much to achieve this, died in November 1924 before the final settlement and opening of the Museum in its impressive new quarters. A curator's house was also part of the building, so Mr and Mrs Swanton were living on site in Museum House for the rest of his tenure as Curator. Swanton's presidential address was given in London on 22nd October 1922 and that more or less marked the end of his active role in conchology, apart from putting on museum displays and curating the shell collection, but dates on shells

indicate some field work in the area into the 1930s. He would also have been heavily involved in building matters as the private house was converted to a museum and the three main galleries purpose-built at one end. Haslemere always has, and still is, a private museum that has to sort out its own funding and today is heavily reliant on a large team of Volunteers, grants and donations but continues to have professional curators.

From the beginning, Haslemere did not restrict its collecting policy to the local area and marketed itself as 'see the whole world on Haslemere High Street'. Some shells in Hutchinson's original teaching collections made from 1888–1897, likely to have included tropical seashells and shells in ethnography, were probably there already when Swanton arrived.



figure 9: Haslemere Educational Museum in its present permanent home in the High Street. Photo from rear garden.

Swanton's legacy

E. W. Swanton's major life's contribution was the active part he played at Haslemere Educational Museum across many disciplines during his half century as Curator where he clearly influenced many people including children on school visits and with the museum club, some of whom remained connected and acted as volunteers in their retirement. His work formed a solid framework for the future curators. Although Swanton did not continue with his first career as school teacher, his early experience was obviously valuable in the education work at Haslemere. It is interesting to note that the great conchologist J. R. le B. Tomlin also started his career as a school master until released from it by inheritance and both Swanton and Tomlin (of similar life span) started collecting shells in their own school days and joined this Society in their twenties. J. Cosmo Melvill, who wrote Ponsonby's obituary in the *Journal*, was at Harrow with Ponsonby where they probably first started an interest in shells and Melvill's own collection was later acquired by J. R. le B. Tomlin which is now at the National Museum of Wales, Cardiff. It was serendipity with a mutual friend of Hutchinson and Swanton in Somerset that gave Swanton his lucky break into the new post of Curator, something that he never regretted. After leaving Haslemere his last book was on yew trees published in the year that he died (Swanton, 1958).

References

- Ellis, A E. (1959). Obituary E W Swanton, *Journal of Conchology* **24**: 326.
- Harting, J. E. (1875). *Rambles in Search of Shells, Land and Freshwater*, Van Voorst, London
- Kane, M. (1995). *A Country Museum Revisited*, Haslemere Educational Museum
- Lovell, M. S. (1884). *The Edible Mollusca of Great Britain and Ireland with recipes for cooking them*, L. Reeve & Co, London
- Melville, J. C. (1917). Obituary J. H. Ponsonby-Fane, *Journal of Conchology* **15**: 195–197.
- Pannell, C. (1902). The Land and Freshwater Mollusca of Surrey, *Journal of Conchology* **10**: 168–179.
- Pannell, C. (1903a) (Additional Notes upon the Land and Freshwater Mollusca of Surrey, *Journal of Conchology* **10**: 331–334.
- Pannell, C. (1903b). *Molluscs of the Haslemere area*, Haslemere Educational Museum.
- Ponsonby, J. (1884). List of Shells Found in the Neighbourhood of Yeovil, N. Somerset, *Journal of Conchology* **4**: 245–247.
- Puttick, J. (1988). *The Haslemere Natural History Society 1888-1988 The First Century*, Haslemere Natural History Society.
- Rimmer, R. (ND, [1880]) *The Land and Freshwater Shells of the British Isles*, John Grant, Edinburgh
- Swanton, E. W. (1899). The Land and Freshwater Mollusca of Somersetshire, *Journal of Conchology* **9**: 187–202, 237–243.
- Swanton, E. W. (1902). South African Notes, *Journal of Conchology* **10**: 194–195.
- Swanton, E. W. (1905). Destruction of Potatoes by Slugs, *Journal of Conchology* **11**: 286.
- Swanton, E. W. (1906). *A Pocket Guide to the British Non-marine Mollusca*, Lockwood.
- Swanton, E. W. (1908a). The Mollusca of Wiltshire. *Journal of Conchology* **12**, (6), 129–133 and (7), 173–190.
- Swanton, E. W. (1908b). Colonel George Montagu, *Journal of Conchology* **12**, 161–166.
- Swanton, E. W. (1909). *Fungi and How to Know Them*, Methuen, London.
- Swanton, E. W. (1912a). *British Plant-galls*, Methuen, London.
- Swanton, E. W. (1912b). The Mollusca of Somerset (Land, Freshwater, Estuarine and Marine). *Somerset Archaeological and Natural History Society*, Taunton.
- Swanton, E. W. (1915). A catalogue of the Land and Freshwater Mollusca of Sussex, *The Zoologist* series iv, **19**: 175–181, 263–268, 308–314, 347–353, 384–394.
- Swanton, E. W. (1923). The Edible molluscs of the British Isles, *Journal of Conchology* **17**: 9–18.
- Swanton, E. W. (1938). *Country Notes*, Langham, Haslemere.
- Swanton, E. W. (1939). *The Rise and Development of the Haslemere Natural History Society*, Haslemere Museum.
- Swanton, E. W. (1947). *A Country Museum*, Haslemere Educational Museum.
- Swanton, E. W. (1958). *The Yew Trees of England*. Twickenham: Author.
- Swanton, E. W. and Woods. P. (Eds.), (1914). *Bygone Haslemere*, West, Newman & Co, London
- Tate. R. (1866). *The Land and Freshwater Mollusks of Great Britain*, Robert Hardwicke, London.
- Taylor, J. E. (1894–1921). *Monograph of the Land & Freshwater Mollusca of the British Isles*, 3 vols + 3 parts (unfinished), Leeds.
- Trotter, W. R. (1996). *The Hilltop Writers*, The Book Guild Ltd, Lewes, Sussex. (Revised 2013 Smith, J O Ed.
- The Biodiversity Heritage Library online has an impressive number of old books and journals, including the *Journal of Conchology* up to 1921. It was much used in the preparation of this article.



Mollusc courses at the Field Studies Council in 2018

Full details can be obtained from the FSC website locations indicated and bookings made. All Tutors are Conch. Soc. members.

Slugs and Snails

Orielton, Pembs, S. Wales ;Fri 20th July – Mon 23rd July 2018, led by Ben Rowson; Residential £350 (single room), £320 (shared), Non-res. £295 (includes evening meals & packed lunch) book with enquiries.pb@field-studies-council.org
Tel 01646 623920.

see: www.field-studies-council.org/individuals-and-families/natural-history/animals/soil-invertebrates.aspx

Introducing Molluscs

The Green Centre, Wat Tyler Country Park, Pitsea, Essex; Sat 4th August 2018, 9.30 – 16.30, led by Simon Taylor, £45.

see: www.field-studies-council.org/individuals-and-families/courses/2018/ef/introducing-molluscs-@-the-green-centre-73470.aspx

Slug Identification

Bishops Wood, Worcestershire, Weds 15th August 2018, 10.00-16.00, led by Chris de Feu, £40.

see: www.field-studies-council.org/individuals-and-families/courses/2018/bw/slug-identification-73383.aspx

Beachcombing and Seashells

Margam Park, Port Talbot, S Wales, Fri 17th – Mon 20th August 2018, led by June Chatfield; Residential £323 (single room), £293 (shared), Non-res. £228 (includes evening meals & packed lunch), book with enquiries.mp@field-studies-council.org
Tel 01639 895636 – see Chatfield (2016): *Mollusc World* **41**: 24–29 for finds from a previous course.

see: www.field-studies-council.org/individuals-and-families/courses/2018/ma/beachcombing-and-seashells-73719.aspx

CONSERVATION & RECORDING COMMITTEE (CRC).

In my last Officer Report (Mollusc World 45:22–27) I described the remit and membership of the newly re-formed CRC. I also outlined the business undertaken by this committee at its first meeting, held in Cardiff in November 2016. In November 2017 the committee held its second all-day meeting in Cambridge on the day preceding the Society’s regional meeting, both being hosted in the Cambridge University Museum of Zoology. As well as the ten founder members (Robert Cameron, Ian Killeen, Evelyn Moorkens, Adrian Norris, Bas Payne, Mary Seddon, Adrian Sumner, Simon Taylor, Peter Topley, Martin Willing), the committee welcomed three additions these being Keith Alexander, Julia Nunn and Ben Rowson, each bringing valuable additional skills and expertise (figure 1). It is a measure of the commitment of Committee members that they all attended the 2017 meeting helping to advance many ideas and initiatives. A series of issues were discussed, and this report provides a summary and in places a discussion, of some of the key topics.



figure 1: The Society’s Conservation and Recording Committee: a full turn out for the all-day meeting held at the University of Cambridge, November 2017. (Photos are of those mentioned above, in alphabetical order from top left to bottom right.)

1. Marine Issues.

a. **Presentation of marine records:** To provide a generalised picture of regional distribution the Conchological Society (CS) has used the Watsonian vice-county system to provide a broad picture of non-marine species occurrence within the 153 vice-counties in Britain and Ireland. This has proved useful in reporting new records and in showing species spread and decline in a rather general way and has for many years, provided the basis for the Non-marine recorder’s report. Vice-counties were not, however, used in the two non-marine Atlases (Kerney 1976, 1999) which display distribution on the basis of 10km grid squares as dots. For many years the

Society employed a superficially similar scheme by plotting the broad pattern of marine molluscan distribution by sea areas. Thus, the first sea area atlas (Seaward 1982) used 42 sea areas with the successor marine distribution publication (Seaward 1990) (figure 2) expanding its range to use 53 covering much of north-west Europe. After due discussion the committee decided that marine dot-mapping alone would continue and that there would not be any return to the use of the sea areas to display broad distribution patterns (this is essentially the formal re-confirmation of an earlier Marine Recorder decision). The CS will continue to accept marine records with either grid references (for shore locations) or lat./long. coordinates the latter being converted into dot locations by Recorder 6.

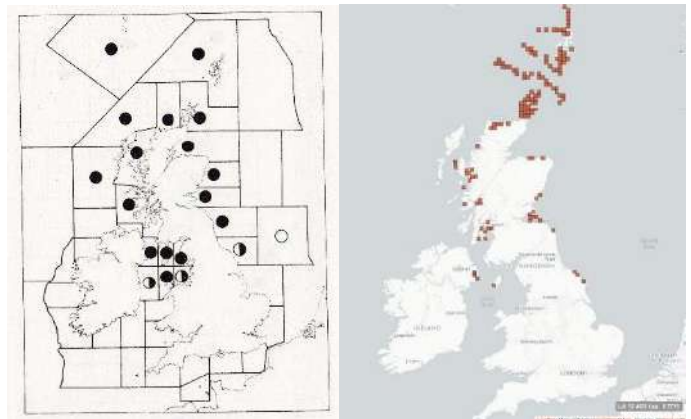


figure 2: Maps of the UK and Ireland showing the different levels of distributional resolution for the tortoiseshell limpet *Testudinalia testudinalis* as displayed by (left) The Sea Area Atlas of Marine Molluscs of Britain and Ireland (D.R. Seaward, Nature Conservancy Council & the Nature Conservancy Council and (right) a 10km ‘dot-map’ (NBN Atlas as accessed 16.5.2018).

b. **‘Capturing our Coast’ & other similar projects:** Several shore-based ‘citizen science’ projects have developed to encourage people to record intertidal marine organisms. These include ‘Capturing our Coast’ (https://www.capturingourcoast.co.uk/), ‘Shore Thing’ (http://www.mba.ac.uk/shore_thing/about.html) and ‘Shore Search’ (a County Wildlife Trust’s initiative run on a county-by-county basis by individual trusts with a shoreline see: https://www.wildlifetrusts.org/events/2013/07/28/shore-search and figure 3). The CS has not taken any formal part in the development of any of these initiatives nor has it yet been asked for any help or advice. Julia Nunn, Simon Taylor and Martin Willing will endeavour to find out more about these projects, which all involve the recording of a range of marine molluscan species. When we understand more about their operation then we may wish to consider becoming a partner organisation to the latter two one to offer help and advice (or both!). The HLF-funded ‘Capturing our Coast’ ends in August 2018 so it will now be too late for the Society to become involved. Although the CS appreciates the value of such schemes in encouraging people to take an active interest in the marine environment it is also aware that such projects can generate a considerable amount of useful but also questionable data. The main problem arises if such data finds its way, unchecked by reliable experts, onto important data bases such as NBN.



figure 3: Shore Search image of adults and eggs of *Nucella lapillus*.
(photo: Sarah Ward / Sussex Wildlife Trust)

- d. **Digitisation of Marine Records:** Simon Taylor announced that about 165,000 recent marine records had been digitised and transferred to Recorder 6, but at least as many card records (mostly for pre-2000) remained to be processed. There was discussion as to how this should be achieved; by volunteer effort or a commercial route; a matter to be further considered by Council in 2018.
- e. **Marine Recording in Ireland:** Julia Nunn summarised marine recording activity in the island of Ireland. In Northern Ireland it was reported that there was little amateur recording although records were being gathered through the sublittoral diving-based 'Seasearch' project and the littoral-based 'Shore Thing'. The results pass through a process of regional and then national validation before they are shared via the NBN Atlas. Additional records are generated by commercial and governmental work. Julia is updated regularly with all marine records that come to the country's Centre for Environmental Data and Recording (CEDaR) and is able to validate these where possible. Little is known about marine recording in the Republic of Ireland, most of which is assumed to be professionally gathered, but does include records from the RoI 'Seasearch' project. Julia's personal records from around the Irish coast are entered onto Marine Recorder and go in that format to CEDaR as a 'back-up' data set on the understanding that they are not yet transferred to the NBN. Julia agreed to send a spreadsheet copy of her mollusc database records to Simon Taylor, when available, as an additional back-up under the same understanding.

2. Non-marine Issues

- a. **Transfer of Non-marine Recorder Duties:** Adrian Norris explained that he would like, after many years of hard work, to step down from the role of Hon. Non-marine Recorder. It was also announced that, with Adrian's support, Ben Rowson (National Museum of Wales [NMW]) had agreed to stand for the post. Subject to acceptance of this proposal by the CS Council and then the normal AGM voting procedures (April 2018) Ben would then take on the post. CS non-marine data, currently held by Adrian on his personal computer, would then be transferred to the NMW in Cardiff for safe storage on their mainframe systems. Continued re-licenced use of Recorder 6 is also planned. Adrian was unanimously and enthusiastically thanked by CRC for his tremendous hard work and dedication over a 10-year period. Ben will not be working alone. The non-marine recorder tasks are now increasingly wide-ranging and demanding. To make the post much more manageable and appealing it is planned

to establish a non-marine recorder 'support team'. A dedicated group of experienced members have agreed to assist in a variety of ways depending upon their experience and expertise (e.g. record validation). In November 2017 support team volunteers included Keith Alexander, Robert Cameron, Ron Carr, Chris du Feu, Ian Killeen, Evelyn Moorkens, Peter Topley, Adrian Sumner and Martin Willing. Adrian Norris will continue as a recorder for Yorkshire, act in a special advisory role and pursue his personal interest as an iRecord verifier.

- b. **Trial verification Tool:** One of the 2016 CRC targets was the development of a simple verification tool to assist those CS members and others (e.g. recorders at Bioblitz events or submitting records to iRecord) to undertake simple ID checks (with consideration to habitat type, geographical location, photographic evidence, requirement for dissection, look-a-like species and the necessity for expert confirmation to see if a determination was realistic. In 2017 Martin Willing and Ian Killeen produced a draft verification tool covering freshwater gastropods. Following an initial review and feedback, the first tool will be placed on the Society website (when relaunched in early 2018) for comment. Further tools will be developed to cover other non-marine groups starting with freshwater bivalves and later land snails and slugs.
- c. **Freshwater Gastropod Identification:** A proposal had been made to Council that the CS (working together with other partner organisations) might support the development of a freshwater gastropod ID leaflet (like the already produced land snail guide; Naggs *et al* 2014). Unlike the situation for land snails, freshwater bivalves and slugs, there is currently no freshwater gastropod ID guide available and so there is an urgent need to develop such a resource. It was felt that in the absence of a supporting book, a pull-out leaflet based solely upon images would not be able to deal with a number of important issues. These include the need for dissection as well as current taxonomic uncertainty regarding certain families such as the Lymnaeids and Planorbids; future updates, and changes in such areas might mean that a photo-guide would be rapidly outdated. The CRC also learnt that Ben Rowson had been approached by the FSC to produce a freshwater gastropod AIDGAP type guide. CRC felt that Council might wish to support such a proposal and that this might be a suitable first step to address the freshwater gastropod recording vacuum. The later need for an ID sheet might be re-considered following the book's production. At the time of the CRC meeting Ben was exploring the possibility that the NMW would seek HLF funding to support the initiative. CRC would take a recommendation to Council that the Society offers support for the production this proposed new guide.
- d. **Non-marine in Ireland:** Evelyn Moorkens reported on procedures, key news and issues for the whole of Ireland. It is estimated that there are about 80,000 non-marine records in the Irish non-marine data base. Low numbers of records are submitted, which are dealt with by Roy Anderson and Evelyn Moorkens for Northern Ireland and the Republic respectively. All submitted records are placed into 'quarantine' until suitably verified at which stage those accepted go to the National Biodiversity Data Centre with copies going to the CS non-marine recorder for addition to the Society data base. Work on two conservation projects for protected species were noted

these being the captive breeding of freshwater pearl mussel *Margaritifera margaritifera* (figures 4–5) and translocation of the Kerry slug *Geomalacus maculosus* (figure 6).



figure 4: Evelyn Moorkens checking a sample for juvenile freshwater pearl mussel *Margaritifera margaritifera* at a mussel hatchery in north Devon, July 2017. (photo: Isabelle Moser)



figure 5: Ian Killeen, Marie Barron (Environment Agency), Izzy Moser (Project Officer of the Torridge Freshwater Pearl Mussel Project, Devon) placing captive-reared juvenile mussels into a branch of the River Torridge (using the Irish method of short-term captive breeding – a process used throughout Europe). (photo: Isabelle Moser)



figure 6: Habitat created for the Kerry slug *Geomalacus maculosus* as a mitigation measure due to slug habitat loss elsewhere due to the construction of Cork to Killarney N22 road. (as *G. maculosus* is an EUHSD Annex IV strictly protected species, all habitat losses affecting the species have to be fully compensated with an equivalent area of new habitat). (photo: Evelyn Moorkens)

3. National Biodiversity Network (NBN) Issues

It was reported that NBN Gateway (a valuable resource used by many CS members) was being replaced by NBN Atlas. The new Atlas is based upon the Atlas of Living Australia infrastructure which had substantial investment from the Australian Government. Discussions on the change from Gateway to Atlas are ongoing; articles by Mandy Henshall and Paula Lightfoot describing some of the changes can be found on pages 30 and 33 of this issue. Despite the positive value of NBN the CS understands some data / data sets contain questionable or obviously incorrect records (not sourced from the CS). Such ‘problem records’ are most obvious for rare and protected species where knowledge of true distribution is well known due to frequent surveys and monitoring. It was suggested that a pilot ‘clean-up’ be undertaken by members of the CRC to identify rogue and suspect records, which might then either be removed or more helpfully be ‘flagged up’ as either erroneous or suspect. Helpfully the NBN Atlas now has the functionality to display the verification status of records e.g. ‘accepted-correct’, ‘unconfirmed-plausible’, ‘unconfirmed-unreviewed’ etc. Following a suggestion made at the 2016 CRC meeting (but deferred due to the GATEWAY > ATLAS changes) Martin Willing, Ian Killeen and Evelyn Moorkens would investigate suspect records of a small pilot selection of suitable non-marine species (with well-known distribution) such as *Vertigo moulinsiana*, *V. geyeri*, *Anisus vorticulus*, *Pseudanodonta complanata* and *Valvata macrostoma*; MJW would also liaise with Paula Lightfoot to choose a similar number of well-studied marine candidate species for similar scrutiny by the Marine Recorder.

4. Updating Red Lists

Mary Seddon (Chair, IUCN SSC Mollusc Specialist Group) reported that the updated IUCN European Red List was nearing completion at either a regional or global level and that in total about 3,500 species had been assessed. It was reported that in early 2018 the UK and Irish records would be available to view and then reviewed using this new resource. This might allow the CS to then look at how to create partnerships with conservation agencies to plan and carry out conservation actions for the most threatened species (in addition to those on the EU Habitats Directive). It is hoped that a short article might be produced to describe these Red List outcomes in more detail in a future edition of Mollusc World.

5. Recorder 6

The Recorder 6 package is not only used by the CS for marine and non-marine recording but also by many individual members. It was therefore with some concern that the committee was reminded in of JNCC’s withdrawal of support for the package. Apparently, this was first suggested in 2013 and is now confirmed with support ending in March 2018. Reassuringly it was reported that Michael Weideli believed that the package would continue to get support from another source. Further details will be reported when available.

6. Conservation Projects

The first two all-day meetings of the CRC had chiefly focussed on pressing issues relating to recording. It was now felt that the CS needed to try to develop some specific conservation projects possibly linked to work on individual species. As well as inviting individual members of CRC to suggest specific project ideas the possibility of working in partnership with other organisations such as Buglife was considered (a Buglife representative would be invited to attend the next CRC

meeting). Further conservation proposals included (1) the addition of molluscan conservation advice items onto the website, (2) providing summaries of molluscan conservation-related academic papers into Mollusc World and (3) a workshop to train members on the numerous and complex conservation regulations.

7. Social Media

Evelyn Moorkens suggested that the CS should set up a Facebook page and it was suggested that she take a proposal to Council.

8. iRECORD

Members were reminded that, although various individuals are happy to act as iRecord verifiers, the CS has no obligation or responsibility to provide services for this initiative. Before any iRecord derived records are accepted by the Society they need to undergo the same level of scrutiny as all other submitted records with verification undertaken by a CS 'approved' expert. Both Ben Rowson (and / or other nominees) and Simon Taylor are happy to deal with iRecord non-marine and marine records respectively.

THE GULF WEDGE CLAM *RANGIA CUNEATA* – FURTHER DEVELOPMENTS

I introduced the CS's involvement with the invasive bivalve *Rangia cuneata* in my last report (MW 45: 24). I reported that tissue snips from 25 Lincolnshire specimens had been sent off to Russia (together with other European samples from Belgium, the Netherlands, Poland, Russia and three sites from the Gulf and eastern coasts of the USA). Samples were sequenced to allow analysis of mitochondrial cytochrome oxidase [COI] gene fragments. The results were returned in 2017. It is not appropriate to give a full summary of results here as most of the data is being incorporated into one or more

papers for completion in 2018. It is, however, possible to give some general conclusions. Thus, it seems that:

- haplotype (similar COI gene fragments) similarities between all the European populations suggests that they came from a common source;
- that there is some overlap between the samples from the USA and Europe;
- the presence in Europe of haplotypes not yet located in the few American samples suggests that the location of the source or sources has yet to be identified.

A full presentation of *Rangia* biology and these results was given at the Euromal conference held in Kraków 10th –14th September 2017.

Rangia has spread rapidly across northern Europe in little over 10 years with populations now discovered in nine countries stretching across a 2,000 km range extending from Lincolnshire in England to Estonia – all in all quite an achievement for a sub-tropical bivalve originating in the Gulf of Mexico!

One of the keys to fully understanding *Rangia* colonisation is to know when they arrived at sites (rather than simply when they were discovered). This might at least be partially achieved by being able to age shells. In autumn 2017 a sample of 5 fresh *Rangia* shells from Lincolnshire were sent to the School of Ocean Sciences at Bangor University where they were processed to see if shell sectioning to study 'growth lines' (sclerochronology) would be viable. Trial results were encouraging and showed a range of ages for the specimens. Late in 2017 Dr. Phil Hollyman from Bangor had formulated an MSc proposal which it is hoped will allow a *Rangia* aging study to be undertaken in 2018 using shell material from across Europe and with shells sourced by way of CS contacts with continental workers (figure 7).



figure 7: A gulf wedge clam *Rangia cuneata* shell section or 'peel' showing how micro-examination of a sectioned shell can produce an estimate of shell age, a process called sclerochronology.

(Image: Phil Hollyman (Bangor University))

eDNA DEVELOPMENT FOR *ANISUS VORTICULUS* SURVEY – PROGRESS

My last officer report also described the launch of a project to develop a technique to survey for the rare *Anisus vorticulus* using eDNA (environmental-DNA: see web-link below). This earlier account explained the numerous advantages that would arise from the successful development of the technique (e.g. allowing the economical and rapid survey of the Pevensy Levels and Broads, vast areas not previously surveyed for the snail by slow, difficult and expensive traditional methods). 2017 continued with further laboratory work undertaken at Brighton University to develop functional gene markers and probes. In late April 2017 a Lower Tidal Arun Strategy (LTAS) meeting was held at RSPB Pulborough Brooks integrating the eDNA project with other work being undertaken on *A. vorticulus* in the Arun valley and elsewhere in Sussex. A series of presentations included an outline background ecology of the snail, the eDNA project and the HLF supported *A. vorticulus* 'Back from the Brink' (investigating ditch management strategies for the snail). All talks were linked to the LTAS which is designed to assess the impacts of sea level rise the environment of the tidal Arun valley and many of its threatened species such as *A. vorticulus*.

In 2018 it is planned to obtain *A. vorticulus* from elsewhere in Britain and Europe to study any genetic variability that might exist across the species' range. It is then hoped that the project might embark upon field-based trials to determine if the technique allows accurate detection of the snail. For a simplified account of the general use of eDNA to detect freshwater organisms please visit:

<https://www.gov.uk/government/publications/developing-dna-techniques-to-identify-freshwater-invertebrates-for-environmental-monitoring>

FIELD STUDIES COUNCIL (FSC) BIOLINKS PROJECT

Early in 2017 the CS were contacted by the FSC to thank us for our input (late in 2016) into the BioLinks consultation. In July 2017 we also learnt that the initiative had successfully gained HLF backing. The BioLinks project, which starts in 2018, aims to deliver an extensive training project covering invertebrate species identification in two regions: South East England (London and Berkshire) and the West Midlands (Shropshire and Worcestershire). In a nutshell, the course will run for 5 years and deliver 300 invertebrate training courses, some of which will focus on non-marine molluscs. More information about the project can be found on their webpage: <http://www.field-studies-council.org/about/fsc-projects/current-projects/biolinks.aspx>

One of the CRC tasks in 2018 will be to study details of the project to see how we might assist in the development of strategy and overall course content. As course tutors will be paid the Society needs to carefully consider how it can become involved to ensure that courses are of high quality and act to promote the aims of the Society. Discussions with Keiron Brown, the FSC BioLinks Project Manager, indicate that he is keen to involve the CS so that the project raises awareness of the Society's major role in non-marine recording in Britain and Ireland. He wishes to take advice from us on what is and is not appropriate on any molluscan courses whilst fully appreciating our charitable status.

BRITISH WILDLIFE

Two molluscan 'Wildlife Reports' were published during 2017 (*British Wildlife* **28:4** 291–293; **28:6** 445–447). As in previous years these were able to cover a range of molluscan news, issues and discussions, partly drawing upon and discussing the Society's non-marine and marine reports as well as a selection of reports and papers from *Mollusc World* and *The Journal of Conchology*. Additionally, in August 2017, about half of the extended report was devoted to publicising the availability of Conchological Society's research grants. The CS is keen to encourage more project applications from amateurs, 'citizen scientists' and local conservation groups based in Britain or Ireland. To give people a rough idea of the type of proposal that might be considered several marine and non-marine project examples were included. Disappointingly the publicity only resulted in one enquiry.

ASSOCIATIONS WITH OTHER ORGANISATIONS

The Conchological Society has active associations with many other conservation organisations. The main ones are Buglife, Invertebrate Link* (to which an annual report was sent in March 2017 consisting of an amalgamation of the two recorders' report together with that of the Conservation Officer), and the Wildlife Trusts (by way of membership of the Conservation Committee of the Sussex Wildlife Trust). In relation to the Trust's Biological Records Centre I have been able to include an annual report to *Adastra*, the annual review of wildlife recording in the county (www.sxbrc.org.uk). For 2017 this summarised 20 years of surveys and monitoring work of *Anisus vorticulus* at Amberley Wild Brooks and Pulborough Brooks, the two sites that make up the Arun Valley SAC established to protect the snail. Additionally, the Conservation Officer is a member of the Arun & Rother Rivers Trust (ARRT); this provides numerous opportunities to become involved in river catchment discussions where molluscan assessments and conservation issues are of relevance.

* Invertebrate Link: further information @ www.royensoc.co.uk/InvLink/Index.html

References:

- Kerney, M.P. (1976). *Atlas of the Non-marine Mollusca of the British Isles*. Conchological Society of Great Britain and Ireland / Natural Environment Research Council (Institute of Terrestrial Ecology).
- Kerney, M.P. (1999). *Atlas of the Land & Freshwater Molluscs of Britain and Ireland*. Harley Books.
- Naggs, F, Preece, R.C. Anderson, R. A. Peiris, Taylor, H. and White, T. (2014) *An Illustrated guide to the land snails of the British Isles*. Joint NHM/Conchological Society / Malacological Society Publication, SRP Ltd, Exeter.
- Seaward, D.R. (1982). *Sea Area Atlas of the Marine Molluscs of Britain and Ireland*. Nature Conservancy Council. Shrewsbury.
- Seaward, D.R. (1990). *Distribution of the marine molluscs of north west Europe*. Nature Conservancy Council. Shrewsbury.

Honorary Treasurer's Report on the Financial Statements to 31st December 2017

The Society has enjoyed another satisfactory year with funds of £124,217, being an increase of £4,452 in the year.

Whilst our overall income in the year was the same as in 2016 we did benefit from the recovery of royalties of £998 on publications, mostly from The Journal of Conchology, which had accrued over the last decade. Subscription income fell by £494 to £12,998 but as we continue to operate at break even before revaluation gains, we see no reason at present to change subscription levels.

Thanks to our editors' close control, this year's publication costs have been reduced by £726. Our grants this year have increased by £660 and this has resulted in overall costs remaining virtually unchanged at £19,226.

During 2017 we sold £10,000 of Fixed Interest Units to increase our liquidity in preparation for spending on our Website, where changes are currently being planned. This has resulted in a small reduction in investment income. Our investments again performed satisfactorily giving us a revaluation surplus of £4,821.

2018 has started well with £4,155 subscriptions paid in advance at the end of 2017 and a further £2,255 paid on the first business day of 2018. Thanks to all of our members who have arranged to pay promptly and to CIRCA, our membership services company who manage this so well. My thanks also to Jian Fan, our honorary examiner for giving his time and expertise to examine the accounts.

Our healthy financial position should enable us to continue to meet our charitable objectives in 2018 and beyond.

Nick Light

Honorary Treasurer
19th January 2018

(notes on the Financial Statements are currently available online at:
www.conchsoc.org/news/2017_reports. [Ed.]

CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2017
Statement of Financial Activities

	Note	2017	2016
Incoming resources			
Fees and subscriptions		£12,998	£13,492
Investment income	1	£4,650	£4,750
Income from activities for generating funds		£122	£585
Other incoming resources		£988	£0
Donations and legacies		£99	£169
Total incoming resources		£18,857	£18,996
Expenditure			
Publications costs		£13,908	£14,632
Stationery, postage and advertising		£518	£461
Meetings costs		£859	£383
Sundry expenses and fees		£988	£1,375
Membership Services		£1,297	£1,430
Grants	2	£1,680	£1,000
Total expenditure		19,226	£19,281
Net incoming resources		-£369	-£285
Gains on revaluation		£4,821	£7,933
Net movement in funds		£4,452	£7,648
Fund balances brought forward		£119,765	£112,117
Fund balances carried forward		£124,217	£119,765

Balance Sheet at 31st December 2017

		2017	2016
Fixed Assets			
Investments at market value	3	£113,581	£118,740
Total fixed assets		£113,581	£118,740
Current Assets			
Debtors	4	£1,020	£1,195
Cash at bank and in hand		£15,151	£8,843
Total current assets		£16,171	£8,038
Short term creditors			
	5	£5,515	£7,013
Net current assets		£10,656	£1,025
Total assets less current liabilities		£124,217	£119,765
Unrestricted income funds		£124,217	£119,765



Some of the participants on the Conchological Society field meeting to the Gower, October, 2017. (photo: Peter Topley)

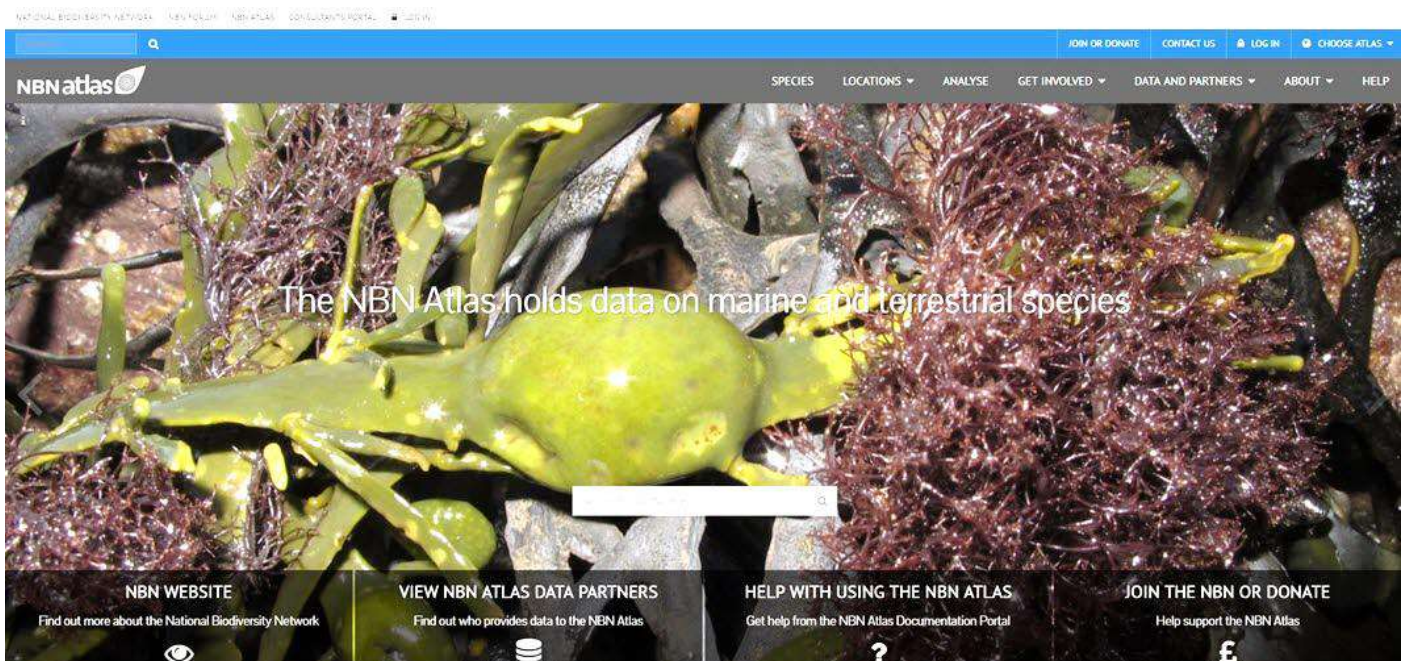


figure 1: NBN Atlas homepage.

As members of the Conchological Society of Great Britain & Ireland, you will hopefully be aware of the National Biodiversity Network (NBN) and its data sharing website the NBN Atlas <https://nbnatlas.org>, which launched in April 2017 (figure 1). Indeed, The Conchological Society has been an important supporter and data partner of the NBN for many years. The Society currently shares over 600,000 records of terrestrial, freshwater and marine molluscs in nine datasets which are administered by the Society's Marine and Non-Marine Recorders. These records are all verified to the highest standard and are publicly available through the NBN Atlas, at full capture resolution, except in a few cases where this is not possible due to recorder permissions.

One year on from the launch of the NBN Atlas and we thought it would be interesting to provide a summary of what's been achieved and what you can expect from future development.

From the NBN Gateway to the NBN Atlas

It was the end of an era with the decommissioning of the NBN Gateway on 31 March 2017. The NBN Gateway had been an excellent tool enabling data sharing on a scale never seen before in the UK, but the technology behind it needed to be significantly updated and the NBN Atlas was therefore developed as its replacement.

The NBN Atlas is based on the open source Atlas of Living Australia infrastructure. The National Biodiversity Network Trust has taken this platform and redesigned and remastered it to create a bespoke system for the UK which remains compatible to allow data to be shared globally.

By adapting an existing platform, costs have been minimised and it has resulted in a more powerful and functionally integrated end product than would have been achieved if a new platform had been built from scratch.

As the Atlas of Living Australia platform is open source, many other countries around the world use the same system, including France, Spain, Portugal and Argentina. This makes our UK biodiversity data compatible with other countries' data and allows users to compare and share data globally.

Phase 1

As the NBN Gateway was being decommissioned, we had developed the first phase of the NBN Atlas, which, along with the NBN Atlas Wales, was live and available on 1 April 2017. These two NBN Atlases joined the NBN Atlas Scotland, which had launched the previous year. Despite the tight timescales, we had a functioning biological information management infrastructure up and running, within budget, on time and with a massive 215 million species records available.

All the work to date has been part of the first phase of the NBN Atlas, with future developments planned to enhance the current system.

Some key work in the first phase related to:

- Download limits.
In July 2017, we removed the original download limit of 50,000 records and replaced it with a much higher figure of 10 million records. With the 10 million record download facility users are able to download all the data for any species and all the data for any dataset except for the BTO dataset – Birds (BTO + Partners) which has 151 million records.
- Data upload templates and guidance.
We produced [data upload templates and guidance](#) for sharing data via the NBN Atlas platforms.
All of the NBN Atlases hold their data in Darwin Core format, the internationally recognised standard for biodiversity data.
- NBN Atlas Documentation and Help Portal.
We developed a new site to bring together information and guidance for users of all of the NBN Atlases. On the site you can find 'How to' videos and download information to help you use the NBN Atlas, and find out more about using, sharing and downloading data.
The [NBN Atlas Documentation and Help Portal](#) can be found by clicking on the 'Help' link on the top right hand side of each of the NBN Atlases.

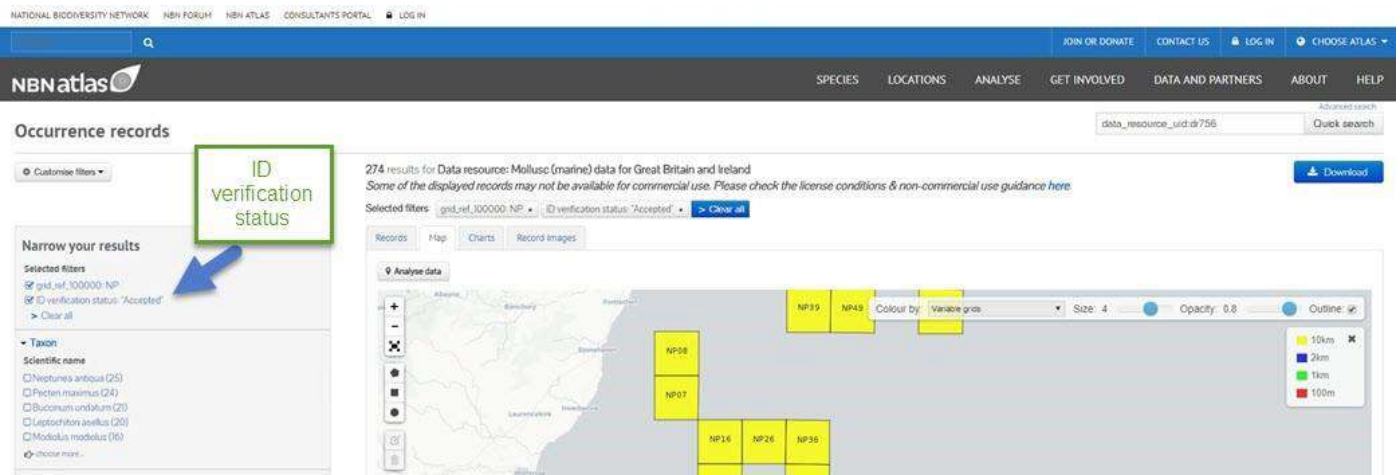


figure 2: Map showing example of filtering for accepted records only.

Verification Status of Records

Occurrence records on the NBN Atlases now require an identification verification status (figure 2) [see also the article following by Paula Lightfoot on this subject. Ed.] There are six options for data partners to choose from:

- Accepted
- Accepted – correct
- Accepted – considered correct
- Unconfirmed (default)
- Unconfirmed – plausible
- Unconfirmed – not reviewed

The description of each option can be found on the [NBN Atlas Documentation and Help Portal](#). Accepted and Unconfirmed records are displayed in different colours on the occurrence record maps and it is possible to filter records by identification verification status.

Revised Terms of Use and Guidance for Using data

In April 2018 we made some revisions to our Terms of Use and Guidance for Using Data from the NBN Atlas.

The main change related to the introduction of a fixed charge notice which can be issued if a data user is found to have breached the Data Partner's Terms, NBN Atlas Terms of Use or the licence conditions associated with data accessed through the NBN Atlas.

Images on the NBN Atlas

Species images are now provided through the very generous contributions of some of our Network partners, rather than drawing them from the Encyclopaedia of Life. So, we now have images, and occurrence records, from Dave Fenwick (APHOTOMARINE), Derek Crawley (Mammal Society), Malcolm Storey (BioImages) and Paula Lightfoot (Seasearch).

New addition to the NBN Atlas family

On 3 April 2018, we were delighted to announce the launch of the [NBN Atlas Isle of Man](#).

Future developments

Much has been achieved over the last year, but there are more developments planned for the future. Here are just a few examples of development work to come:

- Ability to request enhanced access to sensitive species data.

- Improvements to the downloads, including;
 - Improving heading descriptions
 - Changing download fields
 - Changing order of fields in downloads
- Ability to save user profiles
- Ability to annotate individual records

Some statistics

Number of Records on the NBN Atlas

As at 15th May 2018, the NBN Atlas held over 219 million species records, an increase of 4 million since launch. Taking into account that we were unable to transfer some data partner records from the NBN Gateway to the NBN Atlas due to access and licensing concerns, this is a very positive increase. It is especially important to remember that there were only 133 million records, of which only 71% were publicly available, on the NBN Gateway when it was decommissioned.

Number of data partners

On 1st April 2017, 111 data partners were sharing data through the NBN Atlas. As of 15th May 2018 there were 128 data partners (figure 3).

Some Conchological Society statistics

We thought it would be interesting to share some statistics specific to the datasets on the NBN Atlas which have been provided by the Conchological Society of Britain & Ireland.

The oldest record, which has a complete date, is of *Helicella itala* (Heath snail) recorded on 01/10/1727. The record can be viewed at: <https://tinyurl.com/y74uzvzn>. There is an older record, but this only shows the year as being 1620 and is for *Margaritifera (Margaritifera) margaritifera* (Freshwater pearl mussel): <https://tinyurl.com/ybvytw4n>.

Of the species within the Conchological Society datasets, we have the most records for *Deroceras reticulatum* (Netted field slug) (12,737): <https://tinyurl.com/y88mwegv> and *Discus rotundatus* (Rounded Snail) (12,383): <https://tinyurl.com/ydcxenra>.

The NBN is grateful to the Conchological Society for its continued positive attitude towards making mollusc data openly available to support research, conservation and education. It also values the Society's input into the development of the NBN Atlas, and previously the NBN Gateway, through participation in consultations and working groups.

Conchological Society of Great Britain & Ireland

RESOURCES

1. EA Protected Species Database Desmoulin's whorl snail
Desmoulin's whorl snail records within EA Protected Species database presented for QA.
2. Mollusc (marine) data for Great Britain and Ireland
The records in this dataset are the results of the Conchological Society's Marine Census which has been run since 1876. The dataset includes all the archival records which have so far been digitised, plus modern data which is included on receipt. A portion of the Society's marine records still remain in paper format.
3. Mollusc (marine) data for Great Britain and Ireland - restricted access

607,220 records

Data access

- View records
- Download usage stats
- Alert me about new records
- Alert me about annotations

100% records have verified identification

figure 3: Conchological Society Data Partner page.

The NBN

The National Biodiversity Network (NBN), a registered charity, has been championing the sharing of biological data in the UK since 2000, with the aim of improving the availability of high resolution and high quality data to provide a base for all environmental decision-making in the UK.

The NBN is a partnership and the data partner pages of the NBN Atlas can help to link up groups who are working on similar projects, or help enthusiastic amateur biological recorders find local groups or recording schemes in their area.

Resources

- NBN Atlas - <https://nbnatlas.org/>
- NBN Documentation and Help portal - <https://docs.nbnatlas.org/>
- NBN – www.nbn.org.uk
- GBIF - <http://www.gbif.org/>

Contacts

If you would like further information or advice on anything relating to the NBN or NBN Atlas please contact support@nbn.org.uk.



UK Awards for Biological Recording and Information Sharing

The National Biodiversity Network wants to recognise significant achievement and celebrate success in biological recording and information sharing.

The NBN Trust therefore established a national award scheme, in 2015, in partnership with the Biological Records Centre and the National Forum for Biological Recording. These awards are made annually to individuals, groups of people or organisations that are making outstanding contributions to biological recording and improving our understanding of the natural world.

There are six Award categories:

- Gilbert White Youth Award for recording terrestrial and freshwater wildlife
- Gilbert White Adult Award for recording terrestrial and freshwater wildlife
- David Robertson Youth Award for recording marine and coastal wildlife
- David Robertson Adult Award for recording marine and coastal wildlife
- Lynne Farrell Group Award for recording wildlife
- Adult Newcomer Award for recording wildlife

Nominations for the 2018 Awards

Nominations opened on 6th June and close on 31st July 2018. Information on how to nominate an individual or group of biological recorders (together with the relevant nomination forms) is available on the NBN website under News and Events.

You can also read about the past winners on the website.

Why not nominate someone you know who has made a real contribution to biological recording and see them get the recognition they deserve?

Awards' ceremony

The winners in each category will be announced at a special ceremony on the evening of 21st November in Nottingham, as part of this year's NBN Conference.

The NBN Atlas and Data Quality

Paula Lightfoot

The NBN Atlas is a wonderful resource for those who collect and use biodiversity data. The ability to contribute to knowledge of species distributions and to see our own records in the context of others is a great motivating factor for recorders. By bringing together data from multiple sources, including statutory nature conservation bodies, research institutions, conservation NGOs, national recording schemes and local environmental records centres, the NBN Atlas is a convenient 'one-stop-shop' providing access to data for research, conservation and of course for general interest.

The datasets on the NBN Atlas are provided by over 120 different organisations. These data partners are responsible for quality controlling the data they share and for providing information about data collection and verification procedures. This information can be viewed on the metadata pages for each dataset on the Atlas. Despite data providers' best efforts, some errors do inevitably slip through the net. The appearance of records outside a species' expected distribution (or worse still, records of marine species on land or vice versa!) is confusing and can undermine confidence in the data. Once added to a database, errors can persist for years and cause considerable frustration.

The NBN Secretariat, in consultation with data partners, has been taking steps to tackle this very important issue. All species records now have a verification status which can be used to filter records for view and download, e.g. to eliminate unconfirmed records from a distribution map. By default, both accepted and unconfirmed records are mapped on the

NBN Atlas species pages, but unconfirmed records are shown in a different colour. The ability to annotate individual records, for example to notify a data partner of potential errors in their dataset, is planned for future development as a priority. Until then, it is possible to contact data partners using the contact details provided on their profile page on the Atlas.

As some readers know from personal experience, managing a species database is always a work in progress. Making data publicly available for peer review is a wonderful way of improving data quality. Drawing potential errors to the attention of the data partner enables them to take action to correct or remove the record. If no action is taken, the annotated record will be classified as unconfirmed and can therefore be filtered out of maps and downloads. Peer review can be carried out by individuals in an ad hoc way, simply notifying data providers of potential errors as they spot them, or in a more coordinated way by organisations with expertise in a particular taxonomic group, perhaps identifying a short list of priority species to tackle.

We have probably all spotted potential errors in species distribution data on the NBN Atlas or NBN Gateway at some point, but perhaps didn't know that we could do anything about it. We, the wider NBN community, can and should take action to ensure the data on the NBN Atlas are as accurate and reliable as possible, thus ensuring that the NBN Atlas reaches its full potential as a valuable resource for all of us.

British Shell Collectors' Club



Saturday 27th April 2019
Shell Convention

This is an opportunity to meet other members and to seek advice from experienced collectors. Activities include members' exhibits and exchange tables, dealers' tables and sometimes an auction of fine specimens and books.

Theydon Bois Community Centre,
Coppice Row,
Theydon Bois,
CM16 7ER.
Open from 9am to 5pm. Admission free.

Please check web site for up to date and further information: www.britishshellclub.org

Membership update



The following Conchological Society members have not previously been included in either this column of Mollusc World or in the latest edition of the Members' Guide (2016). 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 (details on page 31).

Codes after a member's address denote their interests: -
B Conchological books; **C** Conservation; **F** fossils;
Mb British marine; **Nb** British non-marine; **P** photography

(names and contact details removed)

50 years ago: from *The Conchologists' Newsletter* (no. 26, September 1968)

The *Conchologists' Newsletter* was this publication's predecessor and ran from January 1961 to December 2002.

Cleaning sails from A.E. Ellis

A leaflet entitled *Hints on cleaning the smaller transparent species of British land Mollusca* was issued by Arthur G. Stubbs (Eastbourne, 1900). As this is now probably difficult to obtain, the following... may be of use to collectors.

Let us suppose that we have some living *Oxychilus alliarius* to clean. Pick out the worst specimen and put it into a tea-strainer; if the animal is crawling tap it to make it retire... Dip the strainer into boiling water for six seconds, then take it out and turn the shell out onto a piece of blotting paper or old handkerchief. Roll it over once or twice in order to dry the slime, and thus enable the shell to be held more firmly. Take a needle in the right hand and hold the shell in the left... in a vertical position, the mouth upwards and towards you, the first finger on top, the thumb below. Insert the needle through the footsole and mantle of the animal, and begin pulling slowly and steadily downwards, following the direction of the last whorl; keep on pulling in the same direction but away from the shell, not coiling round and round... If the animal shows signs of breaking pull a bit slower and a bit steadier; if the signs continue, let go the shell with the left hand, and let it dangle on the needle in the water again for a couple of seconds, then have another pull, and if it should still give signs of breaking, let it break, and be thankful it was the worst specimen.

Now, the cause of breaking was probably one of the following: 1. Water not quite boiling; 2. A jerk at the commencement of the pull; 3. Too long or too short a time boiling; 4. Eggs; 5. General cussedness. If the breakage took place 'early on' in the animal, no. 4 is the probable cause and extra care is all that is required. If about the middle, and you find yourself pulling at one end of a long straggling bit of white stringy snail, and something inside pulling at the other, nos. 1 and 3 will account for it. If the breakage takes place just at the 'tip of his tail', when you thought that you had got him all out, but find that his liver hasn't budged, no. 2 is pretty sure to be the reason, and it is a very common one. It is of two kinds: there is the initial plunge of the light-hearted operator; and there is the partial letting go of the animal at the first pull, caused by a weak insertion of the needle in the first place. Now try the next worst specimen, correcting the above errors, and if after a few further attempts of from four to ten seconds immersion they still break, put it down to cause no. 5 and pass on to something else. Later on try again with a fresh lot of water, a new needle, and a very steady pull.

If you have been successful in getting the animal out entire, you may now proceed to boil two or three together, but do not try to do too many at once, as they are harder to extract after they have begun to cool. Brush the shells with the soft tooth-brush, taking care not to injure the lips, and pick any dirt out of the umbilicus.

The following time-table for the immersion of [some different species] may be found useful [current species names are used here, whilst keeping the original order. Ed.]: -

Species	Seconds immersion	Comments
<i>Oxychilus cellarius</i> <i>O. draparnaldi</i> , <i>O. n. helveticus</i>	10-14	Comparatively easy.
<i>Oxychilus alliarius</i>	c. 6	Not very easy.
<i>Aegopinella nitidula</i>	6-8	Fairly easy: 'tail-piece' apt to break.
<i>Zonitoides nitidus</i>	6-8	Not easy.
<i>Zonitoides excavatus</i>	6-8	Easy
<i>Nesovitrea hammonis</i> <i>Aegopinella pura</i>	4-6	Not easy. A lot depends on ability to hold the tiny shells.
<i>Vitrea</i> & <i>Euconulus</i>	4-6	Immerse when crawling ¹ .

Species	Seconds immersion	Comments
<i>Vitrina pellucida</i>	c. 8	²
<i>Zenobiella subrufescens</i>	8-9	Dry and hold in rag. Do not give preliminary jerk.
<i>Merdigera obscura</i>	12-14	Immerse when crawling. Circular pull on extraction.
<i>Azeca goodalli</i>	8-10	Immerse when crawling.
<i>Cochlicopa lubrica</i>	c. 8	Immerse when crawling. Circular pull on extraction.

¹ A drop of tepid water will often persuade them to come out, if lightly dabbed on their shells with a paint-brush.

² After immersion spread out on blotting paper and trap snail between needle and blotting paper, then with thumb and first finger of left hand gently pull shell away from shell.

Marine mollusca in Orkney Alastair Skene (a junior member at the time, Stromness, Orkney)

Readers who knew the late Robert Rendall, or who have studied his *Mollusca Orcadensia*, will be interested to know that his fine collection of Orkney marine shells is now housed in the small museum in Stromness, Orkney, and was in fact the centre piece of an exhibition in honour of R.R. this summer.

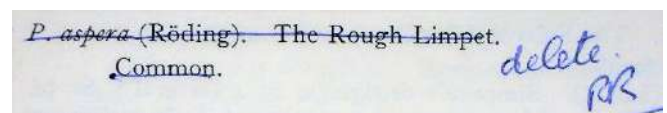
I myself first started collecting shells on the beaches six years ago when I was 9 and joined the Orkney Field Club. This interest was mostly inspired by my Headmaster, Mr. William Groundwater, who himself made a considerable collection of Orkney shells. Three years ago, when I was 12, I arranged my shells in order for a competition at a County show for a prize donated by Robert Rendall. By that time I had just over 100 varieties. When I was putting them in order, I found I had not a respectable specimen of the common cockle and had to go out into the garden and hunt among my sisters' garden decorations for one!

About this time, too, Mr Groundwater introduced me to Mr. Rendall, and I found him a most inspiring and enthusiastic person. It was Mr. Rendall's inspiration that set me to studying shells, not just collecting them – and Orkney is a wonderful place to do this, with its variety of shores. He also encouraged me to join the Conchological Society.

For the past two years we (because I have driven my family into shells) have kept detailed records of our finds. We have even managed to add a few new records to *Mollusca Orcadensia* in this short time.

Mr. Rendall himself made some changes. He regarded *Patella depressa* Pennant as a wrong identification and insisted on adding 'Very doubtful R.R.' in manuscript in my copy of his book.

[Curiously in my own copy of *Mollusca Orcadensia* the author has crossed out the record for another limpet, *P. aspera* (now *P. ulyssiponensis*) of which there are numerous Orkney records (see below). Ed.]



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 and subscribers worldwide. Members receive two publications: Journal of Conchology which specialises in Molluscan Biogeography, Taxonomy and Conservation and this magazine. New members are always welcome to attend field meetings and indoor meetings before joining.

Some key contacts (see web site [<http://www.conchsoc.org/pages/contacts.php>] and 2016 membership list for additional contact details)

HON. PRESIDENT: Martin Willing

14 Goodwood Close, Midhurst, Sussex, GU29 9JG

Email: president@conchsoc.org

HON. GENERAL SECRETARY: Rosemary Hill

447b Wokingham Road, Earley, Reading, RG6 7EL

Email: secretary@conchsoc.org

HON. TREASURER: Nick Light

The Old Workshop, West Street, Winterbourne Kingston,

Dorset, DT11 9AX Email: treasurer@conchsoc.org

HON. EDITOR OF THE JOURNAL OF CONCHOLOGY

Anna Holmes, National Museum of Wales, Cathays Park,

Cardiff, CF10 3NP Email: journal@conchsoc.org

HON. EDITOR OF MOLLUSC WORLD: Peter Topley

The Rectory, 8 Rectory Close, Clifton, Shefford, Beds., SG17 5EL

E mails: magazine@conchsoc.org

FOR BACK NUMBERS OF CONCH. SOC. PUBLICATIONS

please apply to:

Tom Walker, 38 Redlands Road, Reading, RG1 5HD.

E mail: tom@tmwalker.co.uk

RECORDING AND CONSERVATION

HON. CONSERVATION OFFICER: Martin Willing (see opposite)

Email: conservation@conchsoc.org

HON. MARINE CENSUS RECORDER: Simon Taylor

Fiddlesticks, 44 Strawberry Lane,

Tolleshunt Knights, Essex, C05 0RX

E mail: marine@conchsoc.org Phone: 01621 810141

HON. NON-MARINE CENSUS RECORDER: Ben Rowson

Amgueddfa Cymru – National Museum of Wales, Dept. Biodiversity

& Systematic Biology, Cathays Park, Cardiff, CF10 3NP

E mail: nonmarine@conchsoc.org

SUBSCRIPTIONS and MEMBERSHIP

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

E mail: shellmember@gmail.com

For general membership enquiries please contact: -

HON. MEMBERSHIP LIAISON OFFICER: Briony Eastabrook

Rock cottage, Chapel Street, Stow on the Wold, Glos., GL54 1DA

E mail: membership@conchsoc.org

How to become a member

Subscriptions are payable in January each year, and run for the period 1st January to 31st December. Members joining later in the year will receive all publications issued during the relevant calendar year. • Ordinary membership £33 • Family/Joint membership £35 • Under 18 (receiving Mollusc World only) £5 • Student membership £15 • Institutional subscriptions £47

In view of the high cost of postage for distribution from the UK, members living in the Republic of Ireland and 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, CIRCA Subscriptions, 13-17 Sturton Street, Cambridge, CB1 2SN, (shellmember@gmail.com).

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 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. Images and Artwork may be digitised, but we recommend that a digital image size 200Kb- 3Mb (JPEG preferred) be sent with your submission. All originals will be treated with care and returned by post if requested. Authors should note that issues of the magazine may be posted retrospectively on the Conchological Society's web site. Copy intended for the November 2018 issue should be with the Hon. Editor prior to 28th September 2018; inclusion in a particular issue is at the Hon. Editor's discretion and depends upon the 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. Advertisements of shells for sale from commercial shell dealers will generally not be accepted. Please contact the magazine Editor for further details.



Conchological Society of Great Britain and Ireland

Diary of Meetings

Please check website (www.conchsoc.org) for further details/updates, including other meetings arranged at shorter notice.

Saturday 11th August 2018: FIELD MEETING (non-marine): The Devil's Punchbowl, Hindhead, Surrey.

Leader: June Chatfield (01420 82214). Acid woodland and heath with spring seepages, in the footsteps of EW Swanson, who collected molluscs here a century ago. Meet at 11:00 at the NT Visitor Centre / café in the NT car park (SU 891 358).

Saturday 8th – Saturday 15th September 2018: FIELD MEETING (marine): Mullet Peninsula, Co. Mayo, Ireland.

Joint meeting with Porcupine and Seasearch. Leader: Julia Nunn (jdun@cherrycottage.myzen.co.uk).

Remote area of NW Ireland with good variety of shores and diverse fauna; shore visits and diving.

For further information see *Mollusc World* 45: 32–33 or contact leader.

Saturday 22nd September: FIELD MEETING (non-marine): Wharram Percy, North Yorkshire.

Leader: Terry O'Connor (0779 4040684, osteoconnor@gmail.com). Varied chalk grasslands on a mix of slopes and some woodland. Meet at 10:30 at parking area just off minor road at SE86686442.

Saturday 29th September: FIELD MEETING (non-marine) In memory of David Long as a tribute to his memory and his

work with mollusc recording and conservation in Gloucestershire. Cotswold Commons and Beechwoods NNR, Gloucestershire, particularly targeted on recording *Ena montana*. Meet at 10:30, at the Old Ebworth Centre car park, OS grid reference SO 900113. Leaders: Keith Alexander (01392 413092; keith.alexander@waitrose.com) and John Fleming (01452 813659; johnfleming2012@hotmail.co.uk). See web site for details.

Saturday 6th October 2018 10:00 – 16:00: SNAIL IDENTIFICATION WORKSHOP. Elsecar Heritage Centre, Barnsley,

South Yorkshire, S74 8HJ. Leader: Robert Cameron. Sorby Invertebrate Group / Dearne Valley Landscape Partnership event. Free to CS members; **advance booking essential.** Contact Derek Whiteley (invertebrates@sorby.org.uk)

Saturday 6th October 2018: FIELD MEETING (non-marine and marine): Orfordness, Suffolk. Leader: Toby Abrehart (toby@abrehartecology.com). Terrestrial and saline lagoon molluscs. Meet at 10:00 at Orford Quay (TM4254749516).

Saturday 13th October 2018: FIELD MEETING (non-marine): Hawkbatch, Shropshire.

Joint meeting with Wyre Forest Study Group. Leaders: Rosemary Winnall (01299 266489, mob 07732 203393, rosemary@wyreforest.net) and Rosemary Hill (0118 966 5160, rosemaryhi@lineone.net)

Further distribution mapping of *Malacolimax tenellus*, and a look at some of the calcareous flushes in the woods.

Meet at 10:00 at Hawkbatch Car Park, SO761776, 2 miles NW of Bewdley on the B 4194.

Saturday 20th October 2018: INDOOR MEETING: Demonstrations, exhibits, and lecture.

Guest Speaker: Penny Green: 'The Knepp rewilding project' (provisional title).

14:00 – 17:00: Angela Marmont Centre, Natural History Museum, London SW7 5BD.

(Council members please note that there will be a Council meeting before this meeting.)

Saturday 10th November 2018: REGIONAL INDOOR MEETING: Bristol Museum and Art Gallery and MShed

Organiser: Rhian Rowson (rhian.rowson@bristol.gov.uk).

A day of talks, exhibits, and discussion, including a tour of the mollusc collection. Full details will be posted on the website.

Saturday 24th November 2018: WORKSHOP MEETING: Woking, Surrey.

10:00 – 17:00: by kind invitation of Judith Nelson at Hilbre House, Pembroke Road, Woking, Surrey GU22 7ED. This annual workshop offers members the opportunity to receive tuition and share problems and experiences. Those who wish to come should ring Judith (01483 761210) in advance for more details and to reserve a place. A fee of £5 will be charged to cover expenses. Please note that Hilbre House is a non-smoking property.

Saturday 8th December 2018: INDOOR MEETING: A Christmas miscellany

14:00 – 17:30: Angela Marmont Centre, Natural History Museum.

The usual short presentations (5–20 minutes) by members, which can be anything mollusc-related, with or without exhibits; and also a quiz (with prizes!). This will be followed by a glass of Christmas wine (free!); and then by supper at a nearby restaurant (pay your share ...). If you would like to make a presentation, or want a place at the restaurant, please get in touch with Bas.

(Council members please note that there will be a Council meeting before this meeting.)

Please note the following provisional dates in 2019 for your diary:

Saturday 19th January 2019: INDOOR MEETING 14:00 (preceded by Council meeting)

Saturday 23rd February 2019: FULL DAY INDOOR MEETING

Saturday 6th April 2019: ANNUAL GENERAL MEETING (preceded by Council meeting)

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.

Indoor meetings at the Natural History Museum take place in the Angela Marmont Centre for UK Biodiversity, Darwin Building.

Please bring plenty of exhibits and demonstration material.

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.