

Issue 22

March 2010

Mollusc World

Skye Special

From white scallops to white slugs

Cheese Snails in Crab Wood

In the footsteps of J. R. Le B. Tomlin



THE CONCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

From the Hon. Editor



Mollusc World continues to be an important benefit and means of communication to members but remains a major outlay in a period where the Society's income, in the current economic climate, has fallen. A decision has therefore been made to reduce design costs by performing some of these ourselves and to move to an alternative printer who can also assist with type setting and distribution. Thus we have said farewell to Emma Pitrakou and to Henry Ling Ltd who have been involved with the magazine since its launch and our thanks go to them for all their hard work. Moving forward we now have an all-colour magazine and for perhaps the first time, a special "theme" for this issue. In September 2009 the Society held a marine field meeting in the Isle of Skye (an idea partly from Shelagh Smith who has collected many records from the area) co-ordinated by Celia Pain and Jan Light. In addition a small group carried out some successful non-marine recording. The Island of Skye, situated off the West coast of Mainland Scotland, is the largest and best known of the Inner Hebrides. It is sometimes referred to in Gaelic poetry and song as Eilean a' Cheò (The Misty Isle). Skye is renowned for its natural beauty and wildlife

(and as experienced by those who were on the marine field trip, rain!). The Map above by Adrian Sumner shows some of the places visited. Whilst on Skye, the idea was mooted that this issue of MW might focus on different aspects of the molluscs of the island and this is the result. There is also an account of a field trip to search for the "Cheese Snail", an interesting contribution about the surprising connection between shells and a major stage musical and two interesting book reviews! Please continue to send in articles, large and small. What about writing something about your favourite group of molluscs, or a snippet of interesting "mollusc news"? The next issue (copy deadline May 31st) will include some inspired poetry from several of you in response to Peter Dance's poem in issue 21 as well as shell art in the Channel Isles and another recipe!

Peter Topley

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Mollusc World

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

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Front cover: group examining a boulder at Port an Eorna, Plocton, mainland Scotland near Skye (Photo: Bas Payne).

Field Meeting at Winchester, June 2009:-

In the footsteps of the young Jack Tomlin

By June Chatfield



Group at Crab Wood being briefed by June (Photo: Bas Payne)

The field meeting to Crab Wood and West Wood, Winchester, Hampshire on 13 June 2009 was well attended with 18 present (including the Leader, June Chatfield). Ten were Conchological Society members, five from the Southampton Natural History Society and three from National Museum Wales in Cardiff. It is useful to combine with other groups in these meetings.

Crab Wood is classic collecting country, being an ancient woodland on chalk and clay-with-flints near Winchester. It was one of the early collecting sites of the famous conchologist J R le B Tomlin when he was a scholar at Winchester College (1878 - 1883). Specimens from "Crabbe Wood", especially *Helicodonta obvoluta*, the Cheese Snail, are in the Melville-Tomlin Collection at the National Museum Wales so this meeting was of special interest to the Cardiff team who collected some specimens of various molluscs for DNA work, a technique not available to Tomlin in the nineteenth century.

For the Conchological Society field meeting the weather was pleasantly warm and sunny, but although the ground had been moistened by rain the previous week, there had not been enough of it and the molluscs were mostly hidden away under logs and in crevices and had to be actively searched for with

much log-rolling and litter sifting. This extensive block of woodland is owned by Hampshire County Council and managed for conservation interests by the Countryside Section as part of the Farley Mount Country Park. There is open access via a network of paths and rides. The western section north of the Roman Road (Sarum Road) is leased to the Forestry Commission and although there are some conifer plantations, there are considerable stretches of beech plantations about 60 years old to support old woodland molluscs.

Crab Wood (41/43-29-and 41/44-29-)

The morning was spent in the eastern section (Crab Wood) on either side of the north/south road to Sparsholt. This area has a thicker layer of clay-with-flints covering the chalk and has been traditionally managed as oak, ash and beech standards with hazel coppice. Hampshire County Council is bringing rotational coppicing back to increase open areas and glades to benefit wild flowers and butterflies. Some ancient beech trees, probably originally pollarded, survive in this wood giving mature and old trees, while dead wood is left *in situ* for insects and fungi as well as molluscs. Part of the wood is included in the Reserves Handbook of the Hampshire and Isle of Wight Naturalists' Trust.

West Wood (41/41-29- and 41/41-30-)

The afternoon was spent in West Wood on the Forestry Commission plantations. This area is on the side of the hill and chalk is exposed. At our furthest point a large pile of harvested logs provided a focus for searching and here the chalk was not covered in clay-with-flints and a calcium source was more accessible to snails. Further cover was provided in the beech leaf-litter.

Records

Thirty four species of molluscs were found, which is typical for an old woodland on chalkland of southern England. Eleven species were slugs, the rest snails.

The richest collecting was in the Well Copse area of West Wood that was the main focus for the old woodland species of *Helicodonta obvoluta* (Cheese Snail) and *Limax cinereoniger* (Ash-black Slug)¹. The highlight of the meeting was the finding of the Cheese Snail, a rare species in Britain with a distribution concentrated in the western part of the South Downs of West Sussex and Hampshire, of which West Wood is the western-most limit nationally. It was also the focus of some of Tomlin's collecting in this block of woodland and he refers to *Helicodonta obvoluta* in a paper that was presented to the Winchester College Natural History Society and published by the College (Tomlin 1882), but he found the snail elusive:

The best place to look for living specimens is in old decayed stumps covered with ivy; but it is always difficult to find, and though I have hunted often in Crabbe Wood have seldom pitched upon a fortunate spot.

West Wood is the section furthest away from Winchester College and Tomlin would have visited on foot from College in a limited slot of time and it is doubtful whether the boys were given much free time. His paper shows his preference for the shelled molluscs as he does not expand on slugs:

This latter class consists of the common slugs, or Limacidae, which I will dismiss at once, as the aspect and much less handling of these slimy creatures cannot be considered especially inviting. I am sure the majority of my hearers will share in this opinion.

It is interesting to see in the report of the discussion that one, F A Bather, did not agree:

He deprecated the author's want of enthusiasm with regard to slugs.

Another comment on Tomlin's paper in *The Wykehamist* (No. 166, May 1882) was:

The paper was concise and to the point but abounded in long words, even more than the nature of the subject warranted.



Helicodonta obvoluta in West Wood
From top: ventral view showing umbilicus and folds in mouth of shell; dorsal views; juvenile with hairs; in "egg" of *Phalus impudicus*
(Photos: Bas Payne)



Log rolling at West Wood (Photo: Bas Payne)

On the Conchological Society field meeting *Helicodonta obvoluta* was only found in the north-west section of West Wood under a stacked pile of forestry logs and other dead wood. About eight living specimens were found and some dead shells. There were juveniles with bristly hairs on the shells as well as adults, demonstrating a breeding population still present 127 years after Tomlin's searches in Crab Wood. On an earlier occasion, when the wood was wet from all night rain and the atmosphere warm and humid, I have seen as many as 60 Cheese Snails active and crawling on the trunks of the young (60 year old) beech trees of Well Copse. It was noticeable that they favoured trunks that had a black crust of the fungus *Aschodichaena rugosa* and David Lonsdale of the Alton Natural History Society and former mycologist for the Forestry Commission, had previously seen snails (*Clausilia bidentata*) feeding on this fungus on beech trunks. A discovery of interest on the field meeting, also associating snails and fungi, was an egg of the Common Stinkhorn (*Phallus impudicus*) that had been hollowed out and had a Cheese Snail in residence.

About four specimens of the large slug *Limax cinereoniger* with a black and white striped foot sole were found under logs in the same area as the Cheese Snails.

I took a sample of beech leaf-litter from the Cheese Snail area (41/41675 30010) to sort at home. This was dominated by the small white Three-toothed Herald Snail *Carychium tridentatum* (35) with smaller numbers (1-5) of *Acanthinula aculeata*, *Punctum pygmaeum*, *Discus rotundatus*, *Cochlodina laminata*, *Oxychilus alliarius*, *Aegopinella nitidula*, *A. pura* and *Clausilia bidentata*.



Carychium tridentatum (Photo: Bas Payne)



Limax maximus (Photo: Bas Payne)



Harriet Wood photographing in Crab Wood (Photo: Bas Payne)



Adrian Norris identifying the catch! (Photo: Terry Wimbleton)

Tomlin's paper to the Winchester College Natural History Society in 1882 was a general one introducing the local molluscs and it is not possible to derive a complete list for Crab Wood from it as no localities were given for very common species. Mention is made of *Acanthinula aculeata*, *Balea perversa*, *Carychium tridentatum*, *Helicigona lapicida*, *Helicodonta obvoluta*, *Macrogastra rolphii*, *Merdigera obscura*, *Pomatias elegans* and seven species of zonitids not specified but three of these are not on our list. When official field meetings are arranged about a year in advance, we take our chance on the weather and June 2009 was dry. Tomlin himself commented that *Helicigona lapicida* and *Merdigera obscura* were abundant only after rain and *Balea perversa* needs dampness and shade. Opportunist searches in the appropriate weather will be necessary to find them together with further sampling of leaf-litter for some of the smaller species that were absent.



Above: *Boettgerilla pallens* (Photo: Bas Payne)



Monacha cantiana on Common Spotted Orchid at edge of West Wood (Photo: Graham Long)

List of species from the Winchester field meeting

<i>Acanthinula aculeata</i>		West Wood
<i>Aegopinella nitidula</i>		West Wood
<i>Aegopinella pura</i>		West Wood
<i>Arion ater</i>	Crab Wood	West Wood
<i>Arion circumscriptus</i>		West Wood
<i>Arion distinctus</i>		West Wood
<i>Arion intermedius</i>		West Wood
<i>Arion subfuscus</i>	Crab Wood	West Wood
<i>Boettgerilla pallens</i>		West Wood
<i>Carychium tridentatum</i>	Crab Wood	West Wood
<i>Cepaea hortensis</i>	Crab Wood	
<i>Cepaea nemoralis</i>	Crab Wood	
<i>Clausilia bidentata</i>	Crab Wood	West Wood
<i>Cochlodina laminata</i>		West Wood
<i>Cornu aspersum</i>	Crab Wood	West Wood
<i>Deroceras reticulatum</i>	Crab Wood	
<i>Discus reticulatus</i>	Crab Wood	West Wood
<i>Euconulus fulvus</i>		West Wood
<i>Helicodonta obvoluta</i>		West Wood
<i>Lauria cylindracea</i>		West Wood
<i>Lehmannia marginata</i>	Crab Wood	West Wood
<i>Limax cinereoniger</i>		West Wood
<i>Limax maximus</i>	Crab Wood	West Wood
<i>Macrogastra rolphii</i>	Crab Wood	
<i>Monacha cantiana</i>		West Wood
<i>Nesovitrea hammonis</i>	Crab Wood	
<i>Oxychilus alliarius</i>	Crab Wood	West Wood
<i>Oxychilus cellarius</i>		West Wood
<i>Oxychilus draparnaudi</i>	Crab Wood	
<i>Pomatias elegans</i>	Crab Wood	West Wood
<i>Punctum pygmaeum</i>	Crab Wood	West Wood
<i>Tandonia budapestensis</i>		West Wood
<i>Trochulus hispidus</i>	Crab Wood	
<i>Vitrea contracta</i>	Crab Wood	West Wood

Acknowledgement

I am grateful to John Glasgow for researching and copying the references to Tomlin's work on snails in reports and archives of Winchester College.

References

- ANON, 1882. Natural History Society *The Wykehamist* No. 166, 67.
- TOMLIN, J R le B, 1882. Land and Freshwater Shells of Winchester *Winchester College Natural History Society 6th Report 1882*, 44-47.

¹See page 25 for a photo of *Limax cinereoniger* on Skye – Ed.

Skye ConchLog: excerpts from a Conchologist's Blog *by Jan Light*

(I started keeping a blog on the Internet in March 2009, converted to the paperless medium of an electronic travelling journal by my daughter, on time-saving grounds. In practice it takes up rather more of my time.....but I enjoy writing it)

I'm on my way to the Western Isles, sharing a car with two fellow conchologists. It is the annual field meeting and I am returning to an island I have visited seldom. Nick and I first went to Skye in 1982 shortly after I became a member of the Conchological Society. It was a wonderful trip in many ways, my first experience of serious, enlightened, engaging conchology.

From the A1 we shift to the A66 and cross England from east to west. Then we are in the Lake District with the sun on its gently rolling hills and mountains, cosy up to each other and where they meet and fold into valleys they remind me of great sleeping Labrador puppies. The geology of the Lake District is a story of colliding continents, an event which melded two very different terrains. The ancient rocks of the north are bound to the younger lithologies of the south: the geology of the British Isles spans an unimaginable length of deep time.....

..... much later we are driving through such wilderness as the British Isles have to offer. High hills and mountains, some forested, some barren and lower slopes golden with grasses and sedges on the turn and hazily purple with the heathers. There are familiar signposts along the way, Onich, Invergarry and on the very final stretch we come to Dornie with its famous castle. With the sun moving to the west the light casts our aspect of the castle into shade, its brooding presence tricky to photograph.

When we arrive at the house we are to share with four others, they are out walking but return soon after we pull up the drive. There is a lamb stew on the stove and when we sit down for supper the seven of us get to know each other, there's lots of banter and we sort out housekeeping arrangements. The field meeting proper does not start until Friday.

So on Thursday we sally forth to a shore we checked out the evening before when the tide was in and there

weren't many shells lying around. The only clue we have is that offshore islets and the general aspect of the shore mean it is very sheltered and marine invertebrates



like that. The tide is well on the ebb when we arrive. There is a small cascading burn which is flowing under a bridge and down onto the foreshore. This means it would be unsafe to eat any gleanings from this particular beach.

There are the usual cockles, mussels and winkles to be found, also a few oysters. As the tide goes down we wade in the still, clear shallow water, finding boulders to roll and underneath, beauties including the lovely snow scallop (*Chlamys nivea*) attached to the boulder by its byssus. It is sitting alongside living *Trivia* and a sea slug *Berthella plumula*, which when dark orange, looks just like half an apricot. We take numerous photos of these animals *in situ* and roll the rock back into position (see above. Photo: Bas Payne).

Before the tide turns we have taken weeds to wash and have scrubbed boulders to sample all the microscopic species we'll never spot with the naked eye. Sorting these sieved residues later reveals a fascinating array of tiny snails including a trio of species which look like minute whelks (less than 2mm high) with purple-ringed apertures. These are segregates of the lovely *Rissoa lilacina*.



Rissoa lilacina rufilabrum Port an Eorna
(photo: PeterTopley)

We take all our samples away in bags and pots and then sit on the grassy bank watching the tide flow towards us and eat sandwiches, fruit and Kit Kats. We return to the house. It is my turn to cook our supper so I produce 'Christine Street's' curry which was such a hit on the Anglesey meeting.



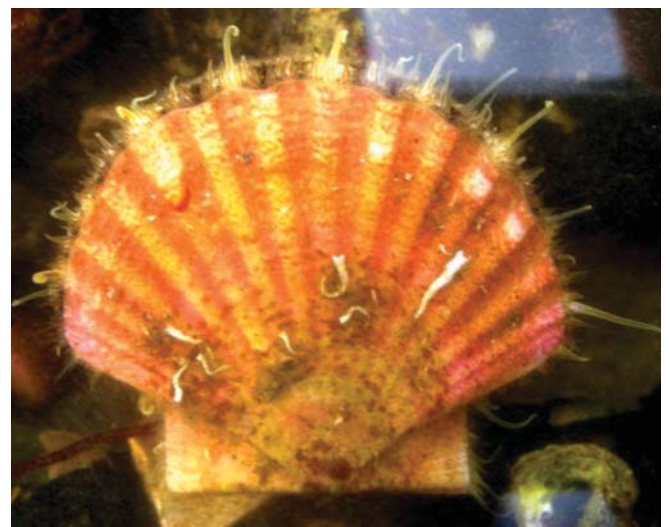
Seb "shell collecting" at Camus Croise
(Photo: Peter Topley)

The following day at Camus Croise we are entertained by Seb the 6-month old Labrador pup who has a fine time finding shells and tossing them about in the hope that someone will play with him. Despite the weather we complete our tasks and as we haul our wet selves back to the car I am already looking forward to the get-together we have planned for the whole group at our house in Kyleakin. We are a bumper 17 on this field trip ranging from experts to novices, dab hands and newer members. We are going to start at 6 o'clock in order to cater for people with long journeys to their guesthouses. Because of Skye's shape, journeys across the island can easily take 2 hours. We are keeping the meal ever so simple so its bangers and mash with green beans and I am in charge of making the largest pan of fried onions I've ever cooked but Rosemary and Sonia are chefs for the evening. Afterwards we serve apple pie, ice cream and cream.

After the last guests have gone I stay at my microscope for a short while but I am already behind with my samples. And tomorrow's shore is the biggie!

On the day of the very lowest springs, when you really have a sense of tiptoeing over the seabed, we go to a wonderful shore just west of Broadford Bay near Strollamus. It is a particularly unbeautiful beach, more or less level, featureless and very brown. The cobbles, pebbles, gravels, the brown fucoid seaweeds: all give an impression of a dull, shadowy place. But what marvels it reveals once you start to look.

The site is at a point where, at extreme low water, the channel between the shore and the opposing shore on the island of Scalpay is at its narrowest. When the tide is running through narrows you get a rapids effect and lots of marine life seems to like that. Sponges can be prolific and scallops obviously benefit from a constant stream of particulate matter to filter feed on.



Juvenile *Pecten maximus*, Strollamus (Photo Peter Topley)

Perhaps that is why I find lots of juvenile scallops: the king, *Pecten maximus*, the queen *Aequipecten opercularis* and the dainty snow scallop, *Chlamys nivea*. Individuals of the former two species are bright



Sieving gravel for molluscs, Strollamus
(Photo: Peter Topley)

splashes of colour at the water's edge or seen through the shallows amongst the gravels and weeds. The 'nivea' tend to attach to the undersides of large cobbles and rocks.

I saw lots of baby 'kings': it's a veritable nursery. I know from what I learnt on my first trip to Skye 27 years ago that local scallop divers used to pick up juveniles and move them around to 'nursery' grounds of their choosing. This simple management of their local resource made it easier for them to exploit the scallops in a sustainable way.

In addition to an array of molluscs, including interesting clam species which we sieve from the gravels, there are lots of sea urchins. There are many of the small *Psammechinus miliaris* urchins under rocks, but there are also large individuals of *Echinus esculentus* amongst the kelp plants in the shallows. These are edible but I have never tried them. The taste of urchin is said to taste like nothing else – an article in the *Independent*, which I found on the internet, described them as having a creamy taste with a hint of iodine. Peter finds a perfect test of the purple heart urchin, *Spatangus purpureus* which he later bleaches clean. It is a prize.

We take our usual weeds to wash, and scrub boulders on the shore. Just before we leave, Steve picks up a large paired *Pecten* shell. It has several interesting specimens on and inside it. We can see the turrid, the nudibranch, the chiton, the limpet and the young scallop attached to the exterior, and the interior has some small clods of sediment. We decide to take it back and see how many species we retrieve from it as a

sample of 'substrate'. When every last bit of sieved mud has been picked through we have a tally of more than 30 mollusc species from this single object.

As things turn out our tide on Strollamus turns out to be my seashore highlight. With deteriorating weather, time on the beach becomes more of a challenge and I adopt my supermarket approach to fieldwork. You just have to rush in, fill your trolley (buckets) with what you need and dash out again. The luxury of wandering over the shore looking for shells lying around, or lifting rocks to peer underneath is nothing like so enjoyable when you have rain dripping

off the hood of your jacket onto your nose, and you have no windscreen-wipers on your spectacles.

Nevertheless on the last shore day I learn a new trick. Julia is well versed in the finding and identifying of nudibranchs, otherwise known as sea-slugs. Some of them are so minute you barely see them with a naked eye, but you can know where to look and in the matter of *Doto*, Julia does..... (see page 19 of this issue.)

At the end of the meeting, three of us set out on Tuesday morning for our journey south. The weather is still moist and overcast but we are blessed with a wonderful rainbow on our way to Fort William. We are all quiet and, I guess, wrapped up in many thoughts. I am thinking about the sample pots I am taking home.

During our sorting sessions one of my compatriots looked through his microscope and uttered an expletive. I peered down his eyepieces and saw that he had a point. His petri dish was awash with small snails. There were hardly any mineral grains or other beings. He looked at his pot of residue and saw that it was uniformly the same. We did a finger in the air calculation and worked out that his pot might contain 64,000 snails. Fortunately they were nearly all specimens of less than a handful of species. But the sample needs to be sorted, and species identified, because this is why we take samples of the weed faunas. These are tiny molluscs, we are talking a pot the size of a plastic 35mm-film canister. That's just one sample and we have looked at 6 sites.

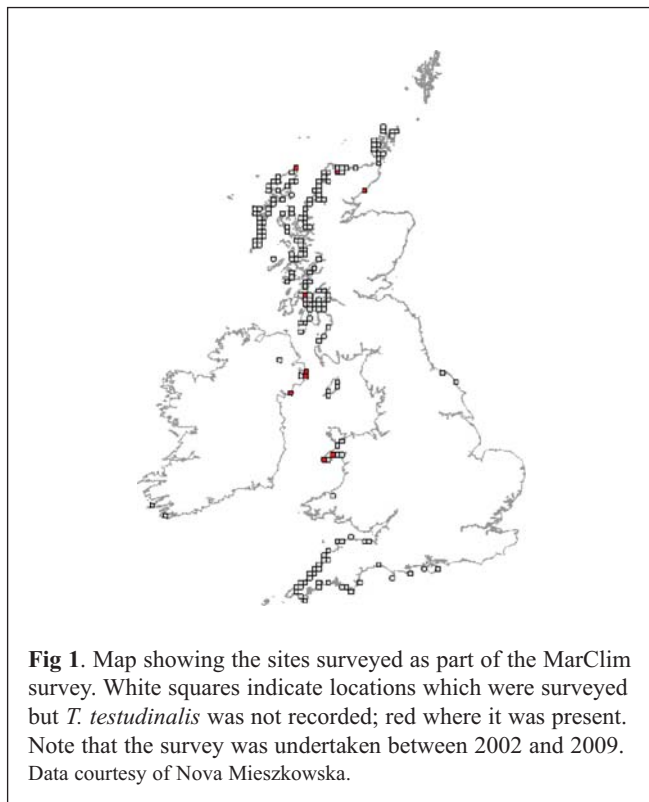
As we drive along I look out at the mountains on this misty morn and sigh. So many snails..... so little time.

The changing (?) distribution of *Tectura testudinalis*

by Steve Wilkinson

There are two species of *Tectura* which occur around the British and Irish coastline – *Tectura testudinalis* (Tortoiseshell limpet) and *T. virginea* (White tortoiseshell limpet). What makes them particularly interesting at the moment is that *T. testudinalis* has a northerly distribution and, given the likely impacts of climate change, it is expected that the distribution of this species will gradually retreat to the north of Scotland. Indeed a recent article in British Wildlife (Mieszkowska 2009) suggested that it “is now only found in reasonable numbers on the far north coast of Scotland (having disappeared from the Isle of Man and being recorded only rarely in Wales and England), the lack of intertidal habitat further north means the species may soon become extinct in Britain.”

This conclusion is based on the survey of a large number of rocky shores around the UK to look at the distribution of a range of rocky shore species. Figure 1 shows the sites surveyed through the study and highlights those where *T. testudinalis* was recorded. In short the species was recorded at very few of the sites surveyed.

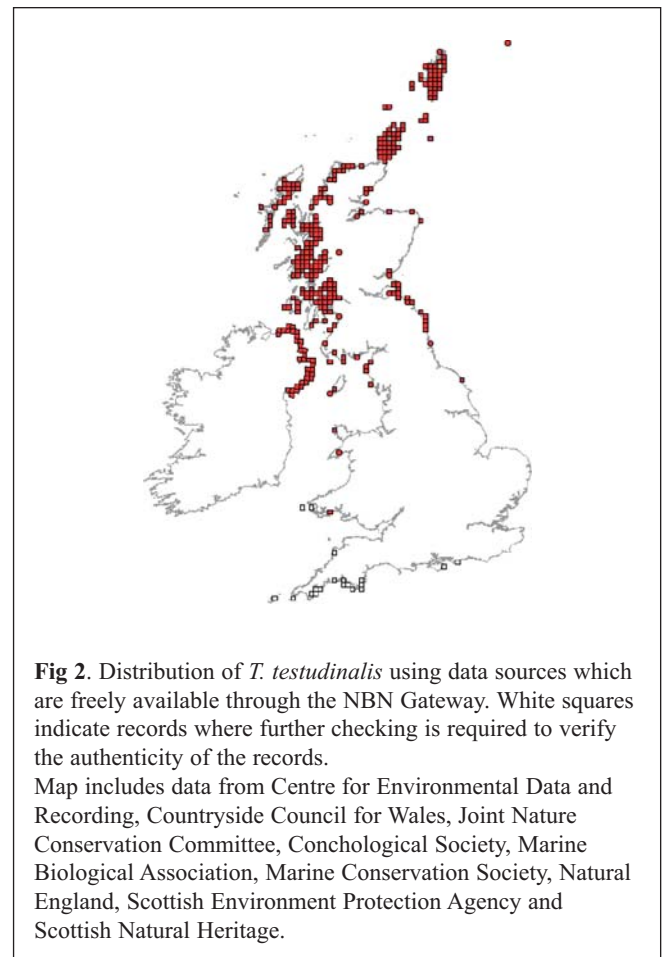


T. testudinalis has a circumpolar distribution. Graham (1988) describes it as being found “only North of a line from Dublin to Anglesey in the Irish Sea and north of Yorkshire in the North Sea and not on the “northern or western Irish Coasts”. However, he does refer to a recent report on the French coast south of the Channel Islands”. Its presence on the Isle of Man was supported by Bruce, Coleman & Jones (1963) who recorded it as “a few at LWS

Port Erin Bay, Fleshwick” though “fairly common on stones and shells” in the sublittoral (the Breast, Bay Fine and Port Erin Bay). These records were from 1930-31. On the other hand *T. virginea* was fairly common below LWM, Port Erin Bay, Port St Mary Ledges and Fleshwick.

On the east coast of England Foster-Smith (2000) notes that *T. Testudinalis* was recorded from Whitburn in 1858 (there was even some speculation then that it was extending its distribution southwards!). Records in the same area were recorded more recently by the MNCR survey in 1993 who also extended its distribution south to N of Hayburn Wyke (in Scarborough). It is notable that these recent records were made in the sublittoral – not the intertidal.

Combining all the data sources available through the NBN Gateway gives the distribution shown in Fig 2. While the data show a number of records along the south coast these are considered dubious and are shown in white on the map rather than red. They are more likely to be occurrences of *T. virginea* that have either been misidentified or mis-keyed. The sources of these records are MNCR surveys - JNCC are currently looking into the sources of these more carefully. However, it emphasises a point – that care is needed when separating the two species.



The recent trip to Skye provided a good opportunity to see both species. *T. testudinalis* was recorded on all of the shores surveyed (six in all) and *T. virginea* on four. However, it is notable that virtually all of the live *T. testudinalis* found were relatively small; live animals more than 10mm in length were not noted (though larger fresh dead shells were recorded). This result matches recent observations made in the north of Scotland where again only small individuals were recorded in the intertidal (Mieszkowska pers. comm.) This could indicate that the animals are right at the limit of their tolerance and that slightly harsher conditions (e.g. a particularly hot day) result in mortality of *T. testudinalis*. However further exploration is really required to identify exactly what aspect controls the southern limit of the species and its precise impact on the species.

Given the expected changes in distribution of *T. testudinalis* and the recent results of Mieszkowska (2009), records of this species are particularly interesting. Tracking a distribution retreating to the north is much more difficult than range extensions, simply because it is harder to prove a definite absence than it is to record a presence of a species. However, there would definitely seem to be merit in revisiting some of the more southerly sites where *T. testudinalis* has been previously recorded to see if the species is still there but also observations on the sizes and abundance of the individuals recorded would also be very worthwhile and informative.

Finding and identifying *Tectura* species

Where to find them

Both species live fairly low on the shore – particularly the less abundant *T. testudinalis* so a good tide is essential. Both do extend into the sublittoral down to depths of around 50m. They live attached to rock and are generally found in association with red or coralline algae with which they may be well camouflaged so careful searching is often required.

Separating the two species

The diagnostic characteristics separating the two species are reasonably straightforward though a little care is required, particularly for smaller individuals.

Tectura testudinalis

The oval shell is up to about 20mm in length. It is cream in colour with irregular chocolate brown marks radiating from the apex.

Key features:

Brown head scar within the shell (fig 3c)

Outer shell surface has fine ridges from the apex down to the shell margin (fig 3d)

The mantle skirt of the animal is green or blue (fig 4 a-b)

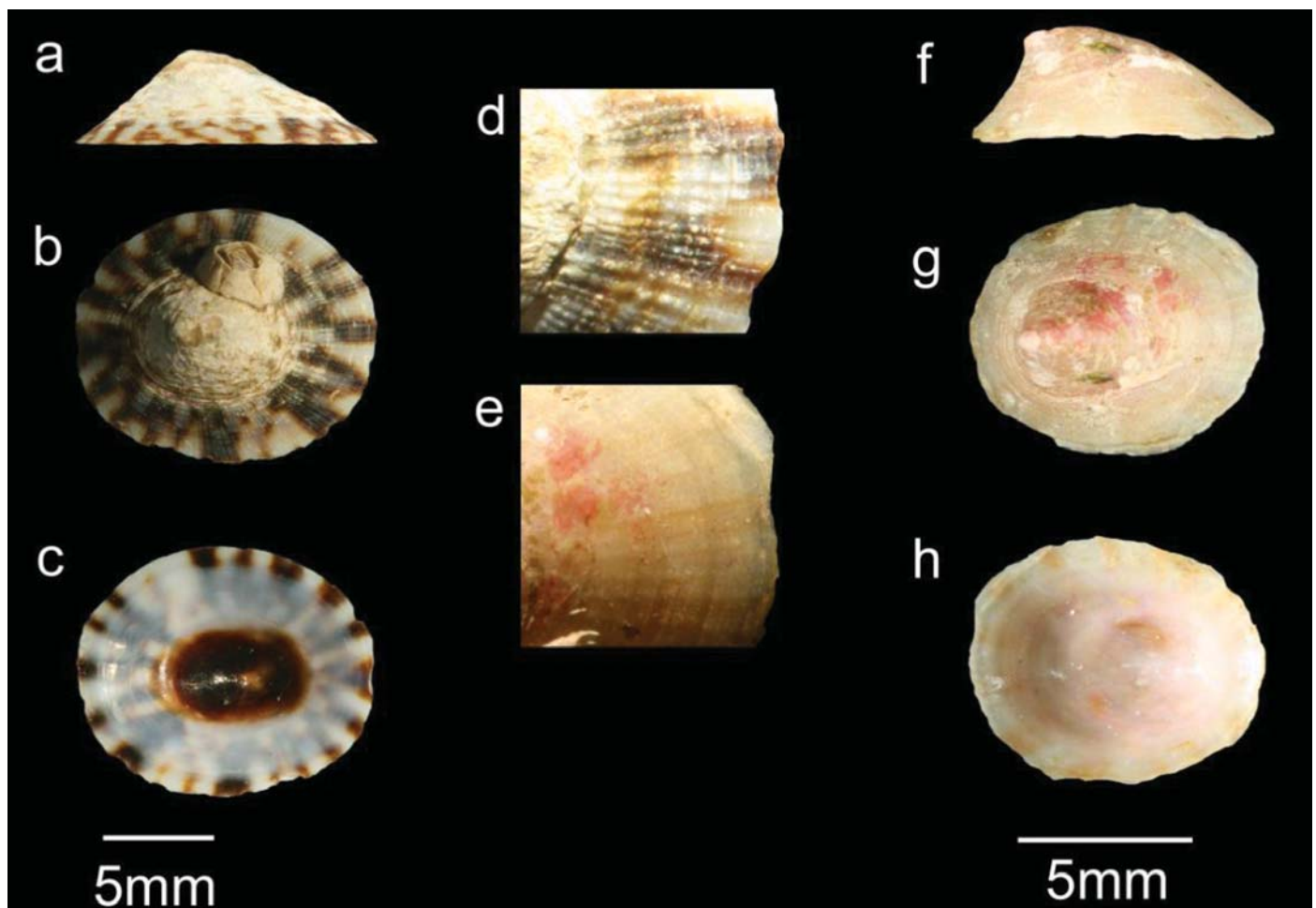


Fig 3 Image showing the differences in morphology of adult specimens of *T. testudinalis* (a - d) and *T. virginea* (e - h).
a and f: lateral views of species (note that shape is variable with a species and should not be used as an identification feature)
b and g: viewed from above (i.e. exterior of shell)
c and h: interior of shell - note the brown head scar in *T. testudinalis*
d and e: detail of external sculpturing of shell surface. Note the ridges on *T. testudinalis*.

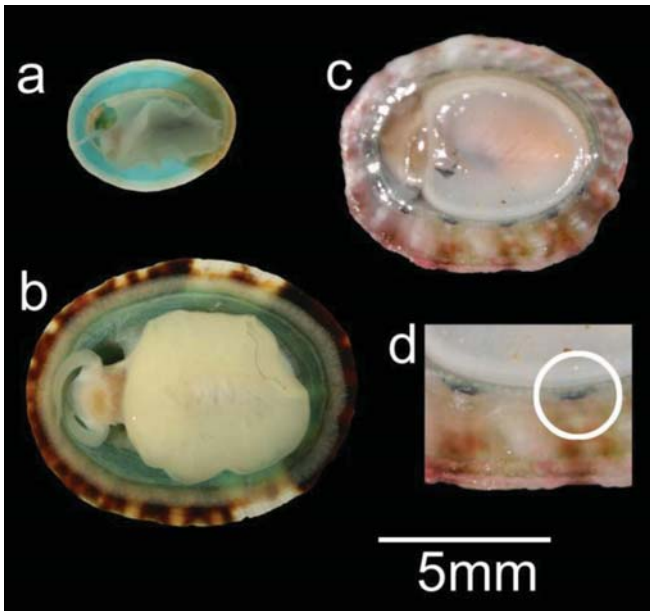


Fig 4 Differences in mantle pigmentation between *T. testudinalis* (a – b) and *T. virginea* (c – d). Note the green pigmentation in *T. testudinalis* (b) which exceptionally can appear blue (a). *T. virginea* has dark bands on the mantle skirt (highlighted in d). Note that the mantle edge is slightly withdrawn in c and d as a result of the animal being exposed to the air.

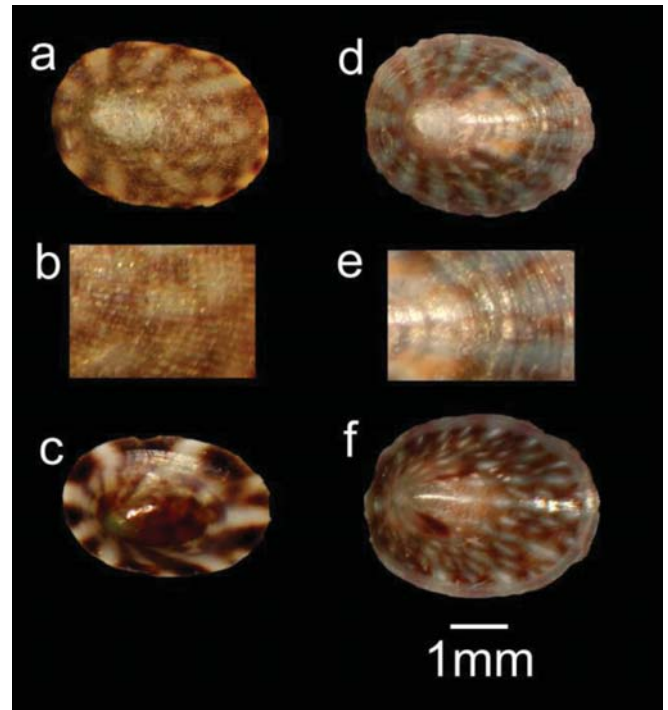


Fig 5 Detail of shell morphology in juvenile specimens of *T. testudinalis* (a-c) and *T. virginea* (d-f). Exterior of shell (a, b, d and e) which still displays the ridged sculpturing in *T. testudinalis* and the interior of the shells (c and f) where the brown head scar of *T. testudinalis* is again still visible.

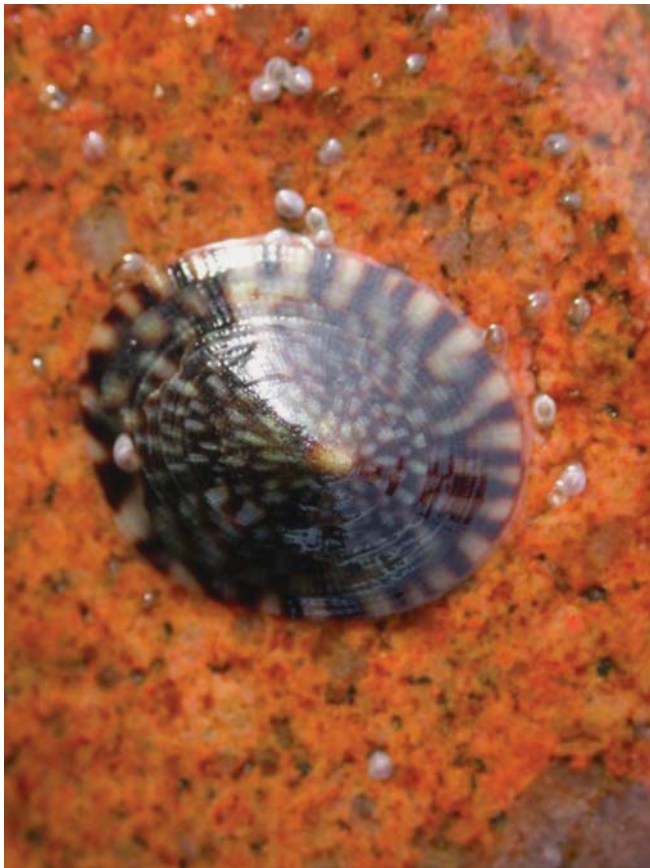


Fig 6: *T. testudinalis*, Helmsdale (photo:Nova Mieszkowska)

Tectura virginea

The shell is smaller than *T. testudinalis* growing up to about 10mm in length. It is cream in colour often with pink rays from the apex to the shell margin.

Key features:

- Head scar unpigmented (or exceptionally with a red V-shape) (fig 3h)
- Outer surface of the shell is smooth (fig 3e)
- The mantle skirt of the animal has dark bands aligned with the rays on the shell (fig 4 c-d)

References

Bruce JR, Coleman JS & Jones NS (1963) Marine Fauna of the Isle of Man. Liverpool University Press.

Graham A (1988) Molluscs: Prosobranch and Pyramidellid Gastropods. Synopsis of the British Fauna No. 2.

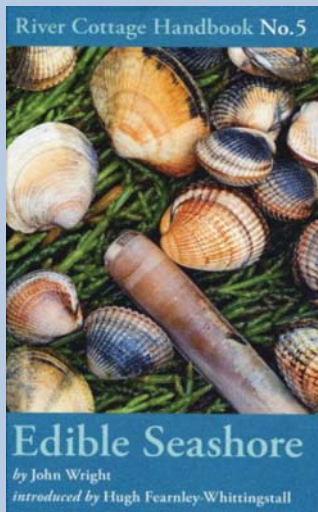
Foster-Smith J (2000) The Marine Fauna and Flora of the Cullercoats District Volume 2. University of Newcastle Upon Tyne.

Mieszkowska N (2009) Sentinels of climate change – species of the rocky intertidal zone. British Wildlife 20(4) 229-235.

Figures 1-5: Steve Wilkinson

BOOK REVIEW: **The River Cottage Edible Seashore Handbook** by John Wright.

2009. Bloomsbury, London. 240pp. Hardback. £14.99 (c. £8.49 on internet.)



In these times of increasing providence when it comes to resourceful strategies to provide one's own food, the publication of **Edible Seashore** is very timely. This gem of a book, a robust compact little hardback which will fit into a large coat pocket or small rucksack contains just about everything you would want to know about foraging for food on the

seashore and the enthusiasm of the author, John Wright, for his subject jumps out at you over and over again.

The book opens with a section that celebrates the 7000-mile long, fruitful coastline of the British Isles that harbours abundant edible plants and animals. The author has given us the benefit of his trial and error experiences, and the hazards he has encountered, in the matter of equipment, techniques, constraints, all of which are thoroughly covered. A chapter called The Rule Book is excellent. This discusses where to go on our coastline, who owns what coast, what rights to roam exist and provides the forager with the information needed to operate safely, competently and legally.

There is a chapter on Flowering plants and one on Seaweeds. The habitat, distribution, season and conservation status of each species in the book is given, with detailed sections outlining how to gather and eat the plant, seaweed or animal. The species accounts are infused with the author's personal experiences, with humour and with aspects of the cultural significance of the foods we can gather. Indeed the text is so fluently written, and so injected with humorous anecdotes and asides, it is a book that is easily read from cover to cover (as my husband proved).

The book tells us that seaweeds are extraordinarily nutritious. Most of us know they contain minerals (notably iodine) but they also contain vitamins and high proportions of good quality protein! Dulse (*Palmeria palmata*) can be 35% protein by weight. Armed with this knowledge I paused on a shore on the Skye field trip when I came across a fine young 'plant' of Dulse. I cut some tender snips off a frond with my knife. The taste was savoury and the texture chewy but not tough. It was a pleasant minor gastronomic experience.

Apparently you can dry this alga and crumble it to produce seaweed 'crisps'.

Perhaps the section on molluscs will be of most interest to readers here. After a few basic caveats on molluscs generally, the author gives his six top tips for safe bivalve consumption - a useful 'digest'. In the species accounts there is a wealth of information on finding and gathering cockles, mussels, oysters and clam species. There are useful photos of some of the siphon holes of bivalve species, including the typical keyhole of the razor clams. Winkles, whelks and limpets are included. In the latter case the author lists both limpets and slipper limpets, the latter not traditionally being thought of as edible. "Anyone who enjoys eating pencil rubbers dipped in fish paste will find the common limpet a treat" states John Wright. He doubts the assertion of a friend who is a restaurateur that it is possible to cook limpets in a way that renders them tender. However I would refute his doubt - I have cooked limpets and offered them to guests as certain members of this Society would attest. The secret is to go for limpets that are not large. I also did not agree with everything John Wright had to say about oysters but then I am an addict! In the chapter on crustaceans he includes some of the more unusual species such as squat lobsters (they serve these in the Wet Weather Centre at the head of Loch Sligachan on Skye), shore crabs and velvet swimming crabs.

In the final section the text becomes a cookery book. The recipes have a fine pedigree, having been tested at the River Cottage HQ owned by Hugh Fearnley Whittingstall, who writes the foreword to this book. It tells you how to make genuine crispy seaweed (as opposed to the short-cut method using shredded cabbage) and there is a recipe for dulse and smoked fish tart. If you have never been able to face raw oysters, you might try oyster risotto, or a bacon and oyster omelette.

I start with something of a bias because I love the sea, the shore and all that one might find there. Eating wild foods is immensely satisfying. I have shown this book to several people who come from a cold start, and they have been much taken with it. At the end of a field session on the shore as conchologists, chased away by a rising tide, we retreat with our samples and specimens and records. Why not add another dimension and take away a pot of assorted clams, a pail of winkles, a haul of mussels or a bag of seaweed from a clean shore to eat for your supper?

Jan Light

A search for shells on the beaches of Skye

by Jim Logan

While the other members of the Conchological Society on Skye were heading down to the lowest areas of the shore and washing samples from sand, weed and other substrates for minute shells, Pauline and I concentrated on the larger shells washed up on the beaches. As we were staying on Skye for a week either side of the Conchological Society field trip we were able to survey several additional beaches around Skye. Altogether we visited 15 beaches and found 55 species of shells.



Figure 1: Jim and Pauline searching for shells
(Photo: Margaret Brown)

When I first joined the Conchological Society I started using its methods for carrying out beach surveys. At first I thought that they should be much more standardised and that all surveys should be carried out at a particular tide level, over a specific area of beach or over a specific time scale so that they could be compared. After several beach walks I realised how effective the Conchological Society method was. The main object is to discover which shells occur in the area with some indication of numbers. If you restrict the survey you may miss some species. The best method is to spend as much time as you can on the beach covering as much of the beach as possible. If you can visit the beach more than once, so much the better.

Shells can accumulate at different points on the beach for no apparent reason. On several occasions we have found that one species of shell occurred in large numbers at one end of the beach while it was absent on the rest of the beach. On other beaches the majority of shells are found in a few piles on an otherwise relatively shell free beach. For instance, on a recent 2,500 yard walk along a Welsh beach we found only a few

individuals of 5 shell species apart from two small areas of beach each about 3 metres wide by 5 metres long which contained many shells of 25 different species. Curiously, two days later everything had changed and the whole tideline of the same stretch was littered with large numbers of shells of 32 different species.

The shells found on the beach are a good way of discovering which molluscs live in the area but it does have its limitations. Some shells may be from animals that died a while ago and no longer live there. For instance, on Skye we found several *Hinia reticulata* shells as did other searchers but no one found any live specimens. The more robust shells can last for several years as can be seen from mature barnacles and worm tubes seen on the inside surfaces of some shells such as *Dosinia* sp., *Arctica islandica*, and others and will be over represented. Thin shells, like those of *Angulus* sp., are very fragile, break up quickly on any but very sheltered beaches and will be under reported.

Despite these points, surveys of the shells found washed up on the shore are very useful as an indication of the molluscs that live in the area. If you cannot dive or trawl for shells and live specimens they are the only way of finding out which molluscs live below the low tide mark.



Figure 2: Comparison of sizes of shells from Skye and Solway
(Photo: Jim Logan)

I was surprised how many of the shells on Skye were familiar to me from my usual hunting ground on the north coast of the Solway Firth near Kirkcudbright. One main difference was the size

of some of the shells. On Skye *Cerastoderma edule* (figure 2, bottom) grew to almost 40 mm at three years compared with around 25-30 mm in the Solway. One large *Littorina littorea* shell was 36.6 mm and many were around 30 mm whereas *L. littorea* in the Solway seldom grow beyond 25mm and most are around 20mm (Figure 2, centre). On Camas Croise we found two *Arctica islandica* 111.6 mm and 118.4 mm across each attached to a frond of *Laminaria saccharina*. Specimens found in the Solway usually are less than 80 mm (figure 2, top).



Crassostrea gigas near the Talisker Distillery
(Photo: Jim Logan)



Modiolus modiolus living on the lower shore, Skye
(Photo: Peter Topley)

Some shells were different from those found in the Solway. *Modiolus modiolus*, *Chlamys nivea*, *Tapes aureus* and *Tapes decussatus* occurred on several Skye beaches. *Cochlodesma praetenuae* and *Angulus squalidus* were found on two of the beaches and a single very worn *Tridonta montagui* was found at Armadale Bay. We also found a pile of fresh empty *Crassostrea gigas* shells on the beach near the Talisker distillery. Possibly someone wanted oysters to go with their dram.

We spent one morning on the Glass Bottomed Boat from Kyle of Lochalsh. It is not actually glass bottomed but it has an area below the waterline with viewing windows. It was a thrilling experience even though there was an

algal bloom which limited visibility to a few metres. We saw many shells on the sea bottom – mainly *Mya arenaria*, *M. truncata* and *Ensis siliqua* as well as many fish, sea urchins, and *Laminaria* forests. Dead man’s fingers (*Alcionyium digitatum*) and other marine life were seen on an old shipwreck. This is a trip well worth doing if you are up at Kyle of Lochalsh.

Deaths of Roman Snails

David Long and Martin Willing

Has anyone noticed unusual mortality among Roman Snails, *Helix pomatia* in the past couple of years? A report of the death of large numbers in the Chilterns, prior to mid-May 2008 by someone (whom we have been unable to contact, and who was carrying out a risk assessment for National Trails) was followed in July 2009 by a report from the mid-Cotswolds of the death of at least 40 out of a population in a cottage garden. In this case the owner was put in touch with me by the Gloucestershire Wildlife Trust; she had been studying the snails for at least 10 years.

It has not been easy to locate reports of deaths of large numbers of these snails. The best (i.e. only) summary I have found was on the Web site for the Animal Diversity Web (ADW) of the University of Michigan, Museum of Zoology: “Nematodes, trematodes, fungi and other parasites are capable of infecting dense snail populations, causing high mortality (“*Helix Pomatia*”, 2007; U.S. Department of Agriculture, 1998)”

With many thanks to Joan Oakley for the 2009 report, to Alice Paling of the Gloucestershire Wildlife Trust for putting me into touch with Joan, to Alisa Swanson of English Nature for drawing my attention to the 2008 report, and to Martin Willing for suggesting this note.

Chitons of Skye

by Steve Wilkinson

Probably one of the most unusual molluscan groups in appearance, chitons have eight shell plates in linear arrangement surrounded by a fleshy girdle. The field trip to Skye gave a good opportunity to see five species which are frequently encountered in the intertidal. As a group they often present difficulties with identification. Look carefully in particular at the detail on the valve and girdle surface. It is hoped that the images of Skye chiton specimens accompanying this short article, which also highlights the key features which may be useful in distinguishing species, will augment the information provided in the Jones & Baxter Synopsis (1987) which provides keys, descriptive text and line drawings for the 11 species which occur on the continental shelf of the British Isles.

Reference: Jones, AM & Baxter JM (1987) Molluscs: Caudofoveata, Solenogastres, Polyplacophora and Scaphopoda. Synopses of the British Fauna No. 37.

Illustrated specimens are from Strollamus and Camus Crois, Skye (Photos by Peter Topley).



Acanthochitona crinitus
(length <34mm)

- 18 tufts of bristles distributed around the girdle
- Tear drop shaped granulations on the valve surface



Leptochiton asellus
(length <19mm)

- Fairly common species in the subtidal extending to the very low shore
- Linear sculpturing of the valve surface
- Intermediate valves have a more angled 'keel' rather than being rounded as in *cancellatus* and *scabridus*



Lepidochitona cinereus
(length <28mm)

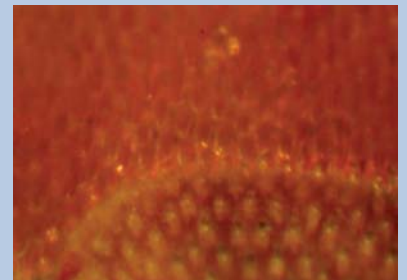
Commonest intertidal chiton often found quite high up the shore.

- No linear sculpturing of the valve surface
- Fairly coarse sculpturing of both the valve surface and girdle
- Colouring highly variable



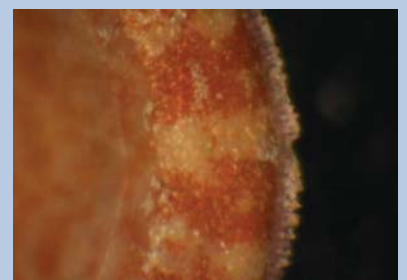
Callochiton septemvalvis
(length <32mm)

- Valve surface appears slightly granular
- Girdle has a snake-skin like appearance (below)



Tonicella rubra
(length <21mm)

- Valves are almost completely smooth
- Girdle covered with small circular granules (below)



Looking for Molluscs at Ardmore Bay, Northern Skye *by Julia Nunn*

Ardmore was a shore with something for everyone and is my favourite (new) site on Skye. Walking down the hill from the parking area (a tricky corner on the road), I could see long wide flats, with a ridge of rock and boulders on the centre left hand (eastern) side. The spit curved out to low water, sheltering mud and sand flats, gravel, runoffs, and a huge shallow lagoon-like pool in the centre.



Ardmore Bay (photo: the author)

The boulders housed a very rich marine fauna, particularly crabs and echinoderms. Amongst many other delights (*Rissoella* spp., *Berthella plumula*, *Mangelia coarctata*, *Musculus costulatus*), I was pleased to find 3 specimens of *Geitodoris planata* there (see Mollusc World 21) – a relatively rare nudibranch on the shore. I walked along the ridge exploring under Coraline algal maerl the boulders and then down to the kelp fringe. Here there were a number of runoffs, water draining from the beach, and a change in habitat to sand and sandy mud. Digging yielded live *Ensis arcuatus*, *Cochlodesma praetenuae* and the usual tellin and venerid suspects. The sea potato *Echinocardium cordatum* was common, but sadly no small bivalves were seen attached.

Rosemary then directed me to another habitat she and Ron had discovered which was a very large area of maerl (pink twiggy free-living coralline algal species) in the centre of the area. This habitat is uncommon and protected. It lay on top of gravel and muddy gravel where *Gibbula magus* roamed freely. However, there was insufficient time left on that tide to fully explore this new habitat. The weather was not ideal, being overcast, cool and occasionally rainy; and I feel that this site would have much more to offer on a repeat visit.

Just one *Pecten* – so many passengers! *by Jan Light*

We had just about finished up at Strollamus when Steve strolled up carrying a large *Pecten maximus* shell. “Isn’t this a nudibranch here?” Yes, nestling in one of the grooves there was a specimen of *Facelina bostoniensis* looking somewhat bedraggled with all its cerata collapsed in a heap. “Isn’t that *Raphitoma purpurea* said someone Only then did someone else point out the juvenile *Chlamys nivea* attached.

The shell was heavily colonised with the serpulid *Pomatoceros*, there were some algae attached and the interior contained muddy sediments. We decided to take it back to see how many species we could retrieve from a thorough examination and a washing of the weed and muds. And so it was that we recorded the following species (table below), all alive and many as juveniles, from this one shell. That’s 29 species including the ‘host’. Only *Semierycina nitida* was not recorded elsewhere on the shore. One piece of substrate and 35% of the total site list for that shore. Not bad going.

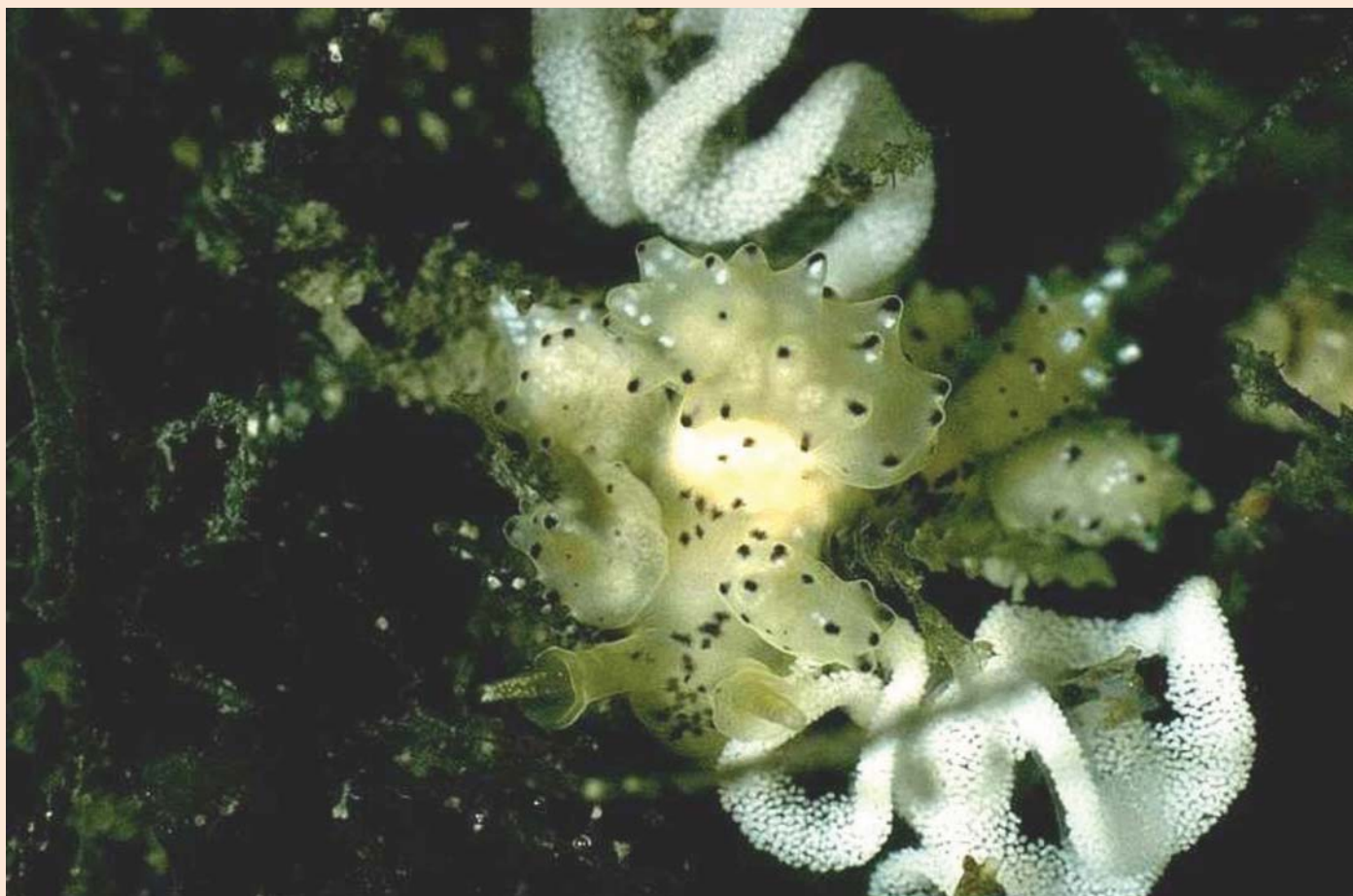
<i>Tectura testudinalis</i>	<i>Retusa truncatula</i>
<i>T. virginea</i>	<i>Facelina bostoniensis</i>
<i>Gibbula cineraria</i>	<i>Mytilus edulis</i>
<i>Onoba semicostata</i>	<i>Modiolarca tumida</i>
<i>Pusillina inconspicua</i>	<i>Chlamys nivea</i>
<i>Buccinum undatum</i>	<i>Heteranomia squamula</i>
<i>Raphitoma linearis</i>	<i>Semierycina nitida</i>
<i>R. purpurea</i>	<i>Mysella bidentata</i>
<i>Rissoella globularis</i>	<i>Parvicardium exiguum</i>
<i>Omalogyra atomus</i>	<i>P. scabrum</i>
<i>Ammonicerina rota</i>	<i>Venerupis senegalensis</i>
<i>Odostomia plicata</i>	<i>Dosinia exoleta</i>
<i>O. turrita</i>	<i>Turtonia minuta</i>
<i>O. unidentata</i>	<i>Hiatella arctica</i>



Above: *Odostomia unidentata*. Port an Eorna nr Plocton (Photo: Peter Topley)

Doto onusta – an overlooked intertidal species of nudibranch

by Julia Nunn



Doto onusta (Photo with kind permission of Bernard Picton)

Doto onusta Hesse, 1872 is a little known species, which has usually been considered synonymous with *Doto coronata* (Picton & Morrow, 1994). It was thought by Lemche to be the species found on the hydroid *Dynamena pumila*, which grows intertidally attached to the brown algae *Fucus serratus* and *Ascophyllum nodosum*, or even under boulders, where there is water movement (wave action or current). The species figured in Picton & Morrow's book is clearly physically separable from '*Doto coronata*' agg. *D. onusta* is translucent white, with black/dark spots on its cerata, whereas *D. coronata* (agg.) has bright red spots, and a red patch on the inner face of each ceras. More molecular work with this group of nudibranchs is required to fully confirm the status of *D. onusta* as a species. Until this work is done, however, it is acceptable to record the form with black/dark spots found on *Dynamena pumila* as *D. onusta* (B. Picton, pers. comm.).

Doto onusta has rarely been recorded, as there are few who would recognise it in the field, or indeed

search for it. Most nudibranch enthusiasts are divers, and do not investigate the intertidal! In areas of water movement, at low water, carefully examine *Fucus serratus* for dense colonies of *Dynamena pumila* – it's a relatively 'chunky' hydroid, not thin and wispy-looking like *Obelia* spp. Although the same hydroid is found on *Ascophyllum nodosum* (see picture below), the



Habitat for *Doto onusta*, The Braes, Skye (photo: author)

colonies are not dense, and the higher position on the shore (much longer period of emersion) would also mitigate against any *Doto onusta* being found. It is relatively unusual to find such colonies on *Fucus serratus*, and I was lucky to find a suitable habitat during the Society's recent field excursion to Skye at The Braes (picture above).



Dynamena pumila on *Ascophyllum nodosum* (photo: author)

When you have found dense colonies of the hydroid, carefully examine them for signs of the curled and folded white spawn laid by *Doto* spp. There are good images in Picton & Morrow's book. If you find the spawn, it is almost certain that you will find the nudibranchs that laid them. Examine the area with a x10 lens and you will easily be able to spot the animals. I usually take

away a small section of the *Fucus serratus* with hydroids, spawn and animals to check their identification under a microscope in fresh sea water. It is important to do this, as there may be a mixture of species of *Doto* present. For example, the majority of the *Doto* specimens present at The Braes were *Doto coronata* (agg.) identified by the red patch on the inside of each cerata, but about 10-20% were *D. onusta*.

Records (all Ireland apart from Skye!): I do not know of any others. The record from Skye is probably the first for Scotland – it has certainly not been known from the west coast of Scotland before this field trip.

Achill Island, Mayo 1976 by Lemche
 Murles Point, Donegal 1978 E. Platts; 1994 BioMar;

2002 author

The Dorn, Strangford Lough, Down
 late 1970s B. Picton

Portstewart, Londonderry 1986 author

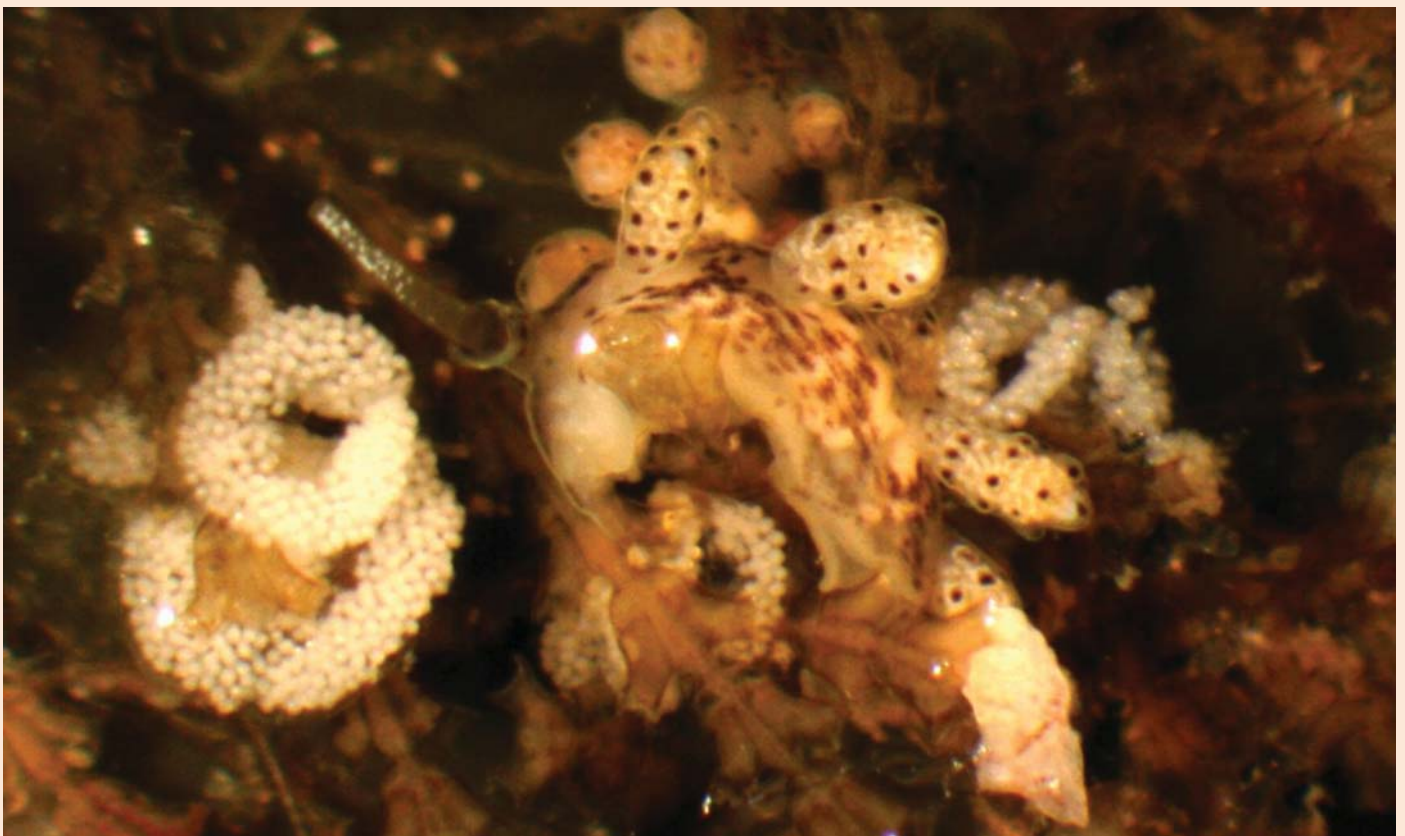
Great Saltee, Wexford 1999 author

Streamstown, Galway 1999 author

The Braes, Skye 2009 author

Reference: Picton, B.E. & Morrow, C.C. 1994 *A Field Guide to the Nudibranchs of the British Isles*. Immel Publishing, London

Below: *Doto coronata* with spawn, The Braes, Skye (Photo: Peter Topley)



Snailing on Skye *by Adrian Sumner*

The middle of September brought a week of fine weather and three conchologists to the “Misty Isle”. Since a Conchological Society marine meeting had been planned for 18th–21st September, it seemed a good idea to do some non-marine recording on the Isle of Skye as well, so three members – Rosemary Hill, Ron Boyce and Adrian Sumner – got together and did some recording before the marine meeting started.

The marine conchologists were going to be based at Broadford, in the south-east of the island, and this was also a good base for non-marine conchology, as the area is geologically the most favourable part of Skye. Although most of the Highlands and Islands of Scotland are based on ancient igneous rocks such as granite, and covered with acid peaty soils, there are extensive areas of both Cambrian and Jurassic limestone to the south-west of Broadford (see Map, page 2). The Cambrian limestone is part of the Durness limestone, which forms a band running down the west of Scotland from the north coast of Sutherland to Argyll. Such basic soils promised to support a richer fauna than the more acid soils found over much of Skye.

Over 60 species of non-marine molluscs are recorded for Skye in the *Atlas of Land and Freshwater Molluscs of Britain and Ireland* (Kerney, 1999), and Chris du Feu has done a lot of recording on the island over the last few years and added a few more species, concentrating particularly on slugs (see his article in this issue). In general, however, recent records have not been obtained for many parts of the country since the *Atlas* was published, and it was hoped to get some really up-to-date information on the slugs and snails of Skye. In particular, it would be nice to know which species of *Balea*, of which two species have recently been recognised in Britain (Gittenberger *et al.*, 2006), occur in Skye.

Adrian had already been on the island for several days and done some desultory recording before joining up with Ron and Rosemary. *Zenobiella subrufescens* was a nice find in the grounds of Armadale Castle in the south. *Arion owenii* also turned up here and in Broadford, but didn't seem to be as widespread and common on Skye as in many places in the west of Scotland; Chris du Feu had already recorded its presence on Skye, but regards it as a very recent immigrant. In the north-west of the island by Claigan coralline sands, where a small trickle ran across the grassland and into the sea, *Potamopyrgus antipodarum* was an interesting find. Although this little freshwater snail has spread to almost every corner of the British Isles, it appears to be very local on Skye, and we found it nowhere else; however, *Ancylus fluviatilis*, which occurred in the same trickle as *P. antipodarum*, was common and widespread. A day trip to the small island of Raasay, off the east coast of Skye and reached by a small ferry (Figure 1) from Sconser, produced a list of 14 species. Nearly half of these were slugs, so it was quite exciting to find several specimens of the snail *Clausilia bidentata* in a small patch of deciduous wood after finding so many shell-less species. The area around the ruins of the old ironstone mine up in the hills proved to be quite productive, but also had a good population of midges, which curtailed examination of the site!



Figure 1. The Raasay ferry, *Loch Striven*, approaching Sconser on the mainland of Skye, with the island of Raasay in the background (Photo: Adrian Sumner)

Ron and Rosemary had also done some preliminary reconnaissance, and near Loch Cill Chriosd in Strath Suardal, which runs south-west from Broadford towards Torrinn, they discovered a real curiosity – a “land limpet”. This was a fine specimen of *Ancylus fluviatilis* that for some reason was attached to a rock completely away from the water (Fig. 2)!



Figure 2. The “land limpet” (*Ancylus fluviatilis*) from Strath Suardal (Photo: Rosemary Hill)

Serious recording began on 14th September, when Ron, Rosemary and Adrian met in the large car park at Broadford and headed south to Tokavaig Wood, near Ord. Some hard searching produced only 12 species in this mixed deciduous wood with a predominance of hazel. We soon found specimens of *Balea heydeni* (Figure 3), and the first ones were attached to bark on the ground. Although *Balea* spp. are reported to be found only rarely on the ground (Boycott, 1934; Kerney, 1999), these were only the first of several that we found there. Obviously if a piece of bark or a branch to which a specimen of *Balea* is attached should fall to the ground, the snail will fall with it. No doubt they subsequently climb up another tree, and thus the species becomes dispersed. Another highlight of the site was a young specimen of the slug *Limax cinereoniger*. Large *Arion* spp. were also here: *A. flagellus*, quite common on the island, and some specimens of *A. cf. rufus*, one of which was enjoying a meal of puffballs that were growing out of the moss on a tree trunk (Figure 4).



Figure 3. A specimen of *Balea heydeni* from Tokavaig Wood near Ord (Photo: Rosemary Hill)



Figure 4. *Arion* cf. *rufus* eating a puffball growing out of the dense growth of moss on a tree trunk in Tokavaig Wood (Photo: Adrian Sumner)

After lunch we returned to the tiny settlement of Ord (Figure 5) where, however, examination of the beach revealed little, although a watercress-choked stream running across it produce *Lymnaea truncatula* and *Pisidium personatum*.



Figure 5. The beach at Ord, Isle of Skye (Photo: Adrian Sumner)

Our final destination for the day was Lower Breakish, a limestone area near the shore to the east of Broadford. The journey there was not uneventful however; one feature of

the Highlands and Islands is numerous single-track roads with a limited number of passing places. These can be a trap for the unwary and inexperienced, and on the way from Ord we had to help push back on to the road a car that had misjudged things when trying to pass. Conchological Society risk assessments don't cover such eventualities! Lower Breakish itself proved to be goldmine. Initially we looked at a limestone cliff beside a small river that entered the sea at this point (Figure 6), and Ron's efforts with his vacuum cleaner produced a specimen of *Columella edentula* here. However, the greatest concentration of snails was in a drystone limestone wall nearby, which hid a large number of specimens within its cracks, of which the most notable were several specimens of *Pyramidula pusilla*, absent from most of Scotland because of its preference for limestone.

The next day we concentrated on Strath Suardal, which runs between Broadford and Torrinn, and is largely on limestone. Our first stop was by the ruined chapel of Cill Chriosd (Figure 7), which itself harboured several species of snails, including more *Pyramidula pusilla*, as well as the bright pink little woodlouse *Androniscus dentiger*, another denizen of limey regions. Behind the chapel was Loch Cill Chriosd (Figure 8), where we found, among other species, *Lymnaea palustris* and *Gyraulus crista*; some marshy areas by the loch further along the Strath yielded *Oxyloma elegans* and *Euconulus alderi*. Across the road from the loch was a hazel wood, not particularly rich in molluscs with the dry weather, but which produced one of the highlights of the expedition, a specimen of *Leiostryla anglica*. Altogether we found 26 species in this quite small area.

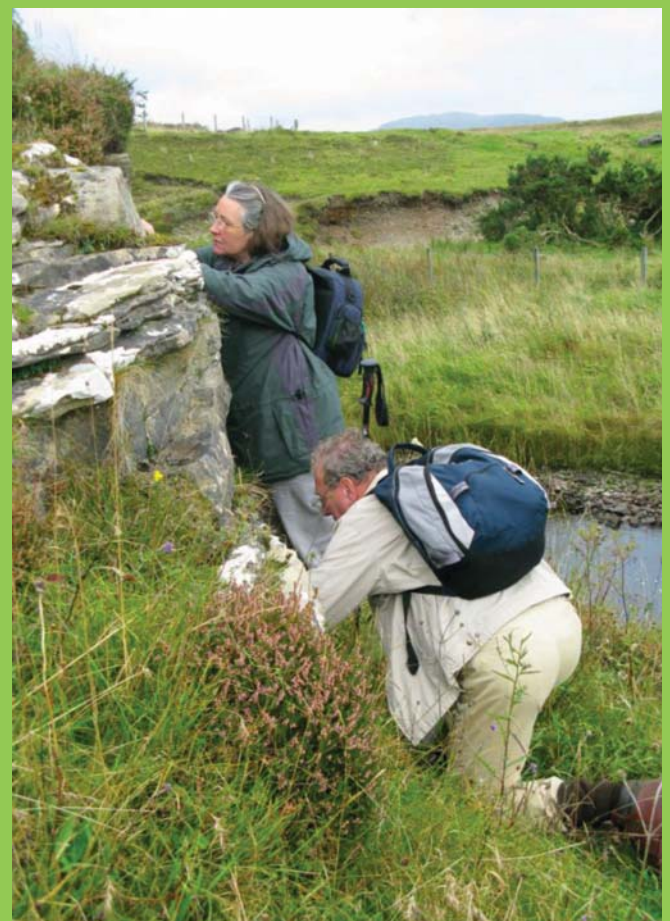


Figure 6. Rosemary Hill and Adrian Sumner examining the limestone cliff by the Abhainn Ashik watercourse at Lower Breakish for snails (Photo: Ron Boyce)



Figure 7. The ruined chapel of Cill Chriosd, home to *Pyramidula pusilla* (Photo: Adrian Sumner)

Further along the Strath, where it meets the sea (Loch Slapin) is the little village of Torrìn, our final destination of the day. At an abandoned area covered with limestone dust from the nearby marble quarry Ron discovered what he described as the “National Collection of *Trochulus striolatus*”, but our main goal here was a hazel wood nearby (Figure 9). The 15 species from this wood included *Acanthinula aculeata*, and a good number of *Balea heydeni*, both on tree trunks and on the ground, attached to fallen wood and bark.



Figure 8. Ron Boyce and Rosemary Hill searching for molluscs by Loch Cill Chriosd (Photo: Adrian Sumner)

Altogether we found 46 species of slugs and snails on Skye, a high proportion of the previously reported total. Although only one was new to Skye (*Balea heydeni*, and that only because it is a newly recognised segregate in Britain), we did extend the recorded ranges of several species. Perhaps most important, we had fine weather for our recording excursions, and had a jolly good time as a result.

Acknowledgements

We thank Ian Killeen for the determinations of the *Pisidium* specimens

References

- Boycott, AE. (1934) The habitats of land Mollusca in Britain. *J. Ecol.* **22**, 1–38.
- Gittenberger, E., Preece, RC. & Ripken, TEJ. (2006) *Balea heydeni* von Maltzan, 1881 (Pulmonata: Clausilidae): an overlooked but widely distributed European species. *J. Conchol.*, **39**, 145–150.
- Kerney, M. (1999) *Atlas of Land and Freshwater Molluscs of Britain and Ireland*. Harley Books, Colchester.



Figure 9. Hazel wood near Torrìn, Isle of Skye (Photo: Ron Boyce)

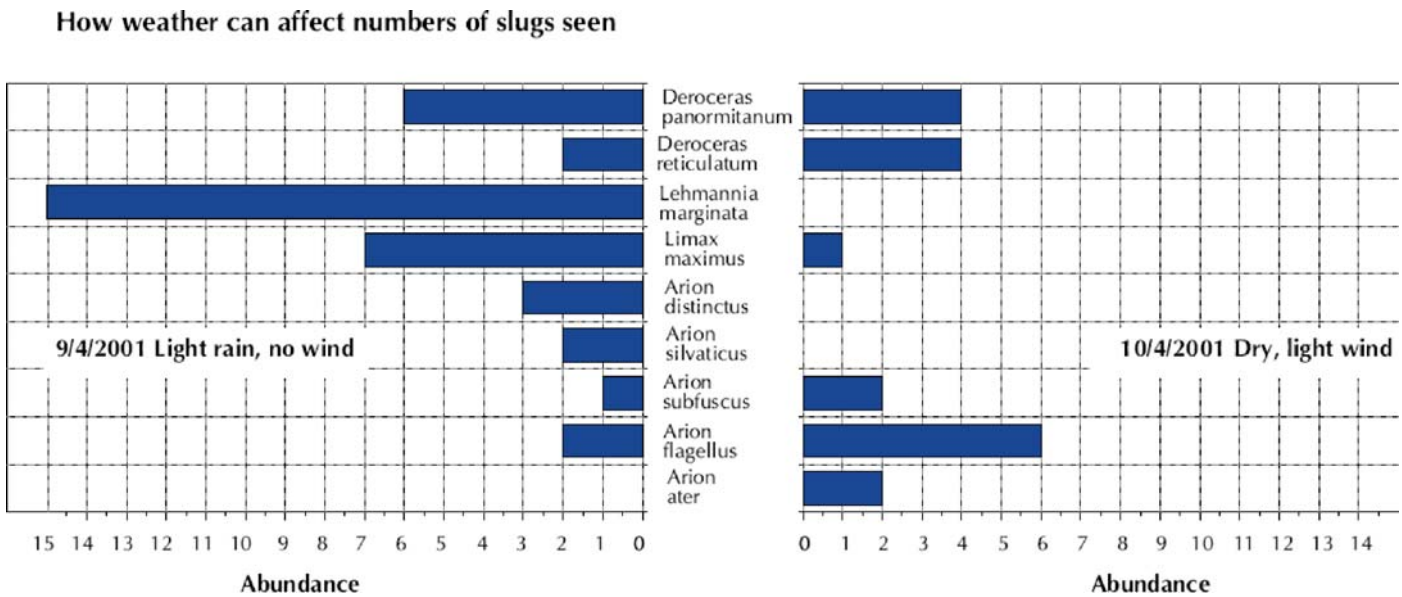
Non-marine molluscs found on Skye & Raasay, September 2009

Species	Raasay	Skye
<i>Potamopyrgus antipodarum</i>		✓
<i>Lymnaea truncatula</i>		✓
<i>Lymnaea palustris</i> agg.		✓
<i>Radix balthica</i>		✓
<i>Gyraulus crista</i>		✓
<i>Ancylus fluviatilis</i>		✓
<i>Pisidium nitidum</i>		✓
<i>Pisidium personatum</i>		✓
<i>Carychium tridentatum</i>		✓
<i>Oxyloma elegans</i>		✓
<i>Cochlicopa lubrica</i>	✓	✓
<i>Pyramidula pusilla</i>		✓
<i>Columella edentula</i>		✓
<i>Leiostyla anglica</i>		✓
<i>Lauria cylindracea</i>	✓	✓
<i>Acanthinula aculeata</i>		✓
<i>Discus rotundatus</i>	✓	✓
<i>Arion ater</i> s.s.		✓
<i>Arion ater</i> agg.		✓
<i>Arion cf. rufus</i>		✓
<i>Arion flagellus</i>	✓	✓
<i>Arion subfuscus</i>	✓	✓
<i>Arion circumscriptus</i> agg.	✓	✓
<i>Arion silvaticus</i> seg.		✓
<i>Arion distinctus</i>		✓
<i>Arion owenii</i>		✓
<i>Arion intermedius</i>		✓
<i>Vitrea crystallina</i>		✓
<i>Vitrea contracta</i>		✓
<i>Nesovitrea hammonis</i>	✓	✓
<i>Aegopinella nitidula</i>	✓	✓
<i>Oxychilus cellarius</i>		✓
<i>Oxychilus alliaris</i>		✓
<i>Limax maximus</i>	✓	✓
<i>Limax cinereoniger</i>		✓
<i>Lehmannia marginata</i>	✓	✓
<i>Deroceras laeve</i>		✓
<i>Deroceras reticulatum</i>	✓	✓
<i>Euconulus fulvus</i>		✓
<i>Euconulus alderi</i>		✓
<i>Clausilia bidentata</i>	✓	✓
<i>Balea heydeni</i>		✓
<i>Zenobiella subrufescens</i>		✓
<i>Trochulus striolatus</i>	✓	✓
<i>Arianta arbustorum</i>		✓
<i>Cepaea hortensis</i>	✓	✓
TOTAL species	14	46

Slugs in Skye *by Chris du Feu*

My Skye slug recording began in 1997 when we had booked a family holiday in Skye over Easter. The proprietors of the guest house we had chosen, Pat and Roger Cottis, had advertised themselves as member of various natural history societies. That seemed to be good enough for us. When we arrived, I asked if they would mind if I brought in a slug, which I had found on the way, for close examination in good light. Absolutely no problem - Roger immediately cleared a worktop in the lounge and asked if he could have a close look too. Later Pat came in with a 'little friend' she had found in the rhubarb she had cut. A first for Skye - *Deroceras panormitanum* which we now refer to as the "rhubarb slug". Our holiday was very productive on the slug recording front and we have returned most Easters since then to visit Pat and Roger who are now firm friends and suppliers of occasional slug records.

Figure 1. Slug abundance on two successive nights with different weather conditions



The first thing discovered was that Skye is under-recorded as far as slugs are concerned. No surprise here, but it is always very rewarding to find new records. Our first visit gave a good number of new species records for Skye. Some of these resulted from the existence of 'new' species, for example *Arion distinctus* and *Arion flagellus*. Others, such as our rhubarb slug, resulted from fairly recent colonisation. As years went by, we continued to look in new places but also to revisit some old haunts.

Because of the all-pervading power of Murphy's Law, it is usually difficult to find slugs on occasions when you set out to do so deliberately. I usually note some measure of slug abundance and habitat with my records. This has proved useful in helping direct searches to places and times where and when slugs will be easiest to find. Conclusions are sometimes as might be expected, but not always. For example, on two successive nights I went on a slug hunt in exactly the same place, on the same route, for the same length of time - how boring slug watchers can become. The only difference in the events was in the weather conditions. The results are most instructive (see Figure 1).

So to enjoy after-dark slug watching, make sure the weather is damp and calm. What about habitats? Assessing all of my records for the two habitats searched most - woodland and 'human influenced' - the diversity of species was similar and the total number of records was also the same. What I have not recorded is time spent in gathering records. And here, I think there is a difference. Woodland, even pristine, natural woodland may have a diverse slug fauna but slugs are not generally massively abundant. On the other hand human habitats, including compost heaps and brownfield sites, often have both diversity of species and abundance. We have one deeply ingrained memory of a morning spent searching in a natural, ancient coastal woodland at Ord, almost untrodden by human foot. Unfortunately it was also almost untrodden by slug foot, with a total of only six species, all of which are commonly found elsewhere in the island and all of which were hard to find in the woodland. In the afternoon we made a much shorter visit to an unpromising, abandoned industrial site in Broadford. Slightly greater species richness but vastly more abundance awaited us with seven species found including *Boettgerilla pallens*. All these species records gained with little expense in time or effort. (Of course, the danger of knowing that slug hunting is better in damp weather and that brownfield sites are good hunting grounds is that these become self-fulfilling prophecies and other habitats and conditions are overlooked.)

Our records are all submitted to the national recording scheme and also the 'local' group - the Highland Biological Recording

Group (HBRG) (see also page 30). Its area is somewhat larger than a typical Watsonian vice-county. In the HBRG newsletter, there had been some correspondence about the value of what was called 'local patch recording'. This is where people record species or natural events, over a long period of time, in some small area. It was very pertinent to the slug hunting in Skye, even though I am just a 'foreign' member of the group and my patch consists of various short annual visits to a rather large island. The value of local patch recording lies in being able to document changes rather than just static species distributions. Missing species can be just as important as those present. Of course, local patch recording is absolutely pointless unless information is accessible - and that means some form of computerisation (even if just as word-processed notes). As I had found back at home with the slug recording group I had run at school, slug distributions are changing. It is definitely worth revisiting sites from time to time. Provided you have searched thoroughly in the past, you can be fairly confident new species are new species rather than long-standing residents that you have overlooked previously. Figure 2 shows species recorded over the years. The 2009 records include those from the Conch. Soc. field visit (which, through another application of Murphy's Law, neither Roger or I were able to attend).

Some species have been particularly interesting to observe. *Arion flagellus* can be found almost anywhere, often in association with *Arion subfuscus* and *Arion ater*. Like *Arion ater* it will appear in daylight when conditions are damp enough without being too wet. *Arion owenii* appears to be a newcomer. We did not record it until 2005 when it was found in a Portree car park, just above the shore line. We did not visit again until 2009. It was found then in two more places - a small, abandoned quarry near the Armadale ferry terminal and in a car park at a visitor centre near Portree. The Conch. Soc. visit found it in Armadale and also in Broadford. All of these were places which had been searched in previous years. These findings were all in places much visited by humans and their vehicles. Unlike *Arion flagellus*, it appears that *Arion owenii* is a genuine recent arrival on the island. *Arion fasciatus* had been recorded both in the far north and far south of Skye. It is not common and seems to be associated with human habitation.



Boettgerilla pallens is also a new arrival. We first found it on Eilean Ban in 1999 - the island which supports the Skye Bridge. It was adjacent to the wall separating the island from the roadway. The following year it was in exactly the same place (but unlikely to be the same individual). In 2003 we found it elsewhere - both in places searched before and in new places - and records continue to accumulate. Clearly a new arrival, it seems likely one brought in by road transport. *Tandonia budapestensis* has been, thankfully, only seen once in 2002. Although in woodland, it was on the very edge adjacent to a garden. It was in a place previously searched. It seems likely that it appeared in connection with gardening operations and was spreading away from the point of infestation. It could well become established - as it has become so elsewhere in Scotland in association with human settlements. There are no historic records for any of the keeled slugs on the island except one for *Milax gagates* in some gardens in Sleat. We have looked here but not found any.

Limax cinereoniger is present and widespread but not abundant. (See above, at Kinloch (photo: author)) Some records are, naturally, in ancient woodland or plantations where ancient woodland had stood previously. However, we also have seen it in two different years in an apparently unlikely place - Eilean Banh. This island cannot, by any stretch of the imagination, be said to be either well wooded or undisturbed. One specimen was found next to the Maxwell cottage, lurking under a piece of damp chipboard left during building works. *Deroceras panormitanum*, as expected for a newcomer, is generally associated with human activity. The few observations in other habitats have all been very close to these 'human' habitats.

Of interest, too, are slugs that have not yet been seen. *Limacus flavus* has been recorded on the mainland near to the island. [*see note below. Ed.] I suspect it is present on the island. It is generally under-recorded in spite of its tendency to live in close proximity to (or even inside) human habitation. It is highly nocturnal and so rarely seen - although its trails through the kitchen may often be seen and remarked on the next morning. *Lehmannia valentiana* is another good candidate for appearance. With its appearance in some many parts of Britain, it seems unlikely that it has not arrived in Skye. The question is not so much whether it has arrived but whether there are any viable populations. The climate in lowland Skye is not particularly severe and, if the species arrives, it

should be able to thrive in sheltered gardens. A compost bin census would be the answer - that would probably find *Limacus flavus* too. Perhaps in 2010?

* Note from Adrian Sumner: "In recent years I've only found *L. maculatus* in Scotland, whereas *L. flavus* was certainly present some years ago, so it looks as if *maculatus* is replacing *flavus*."

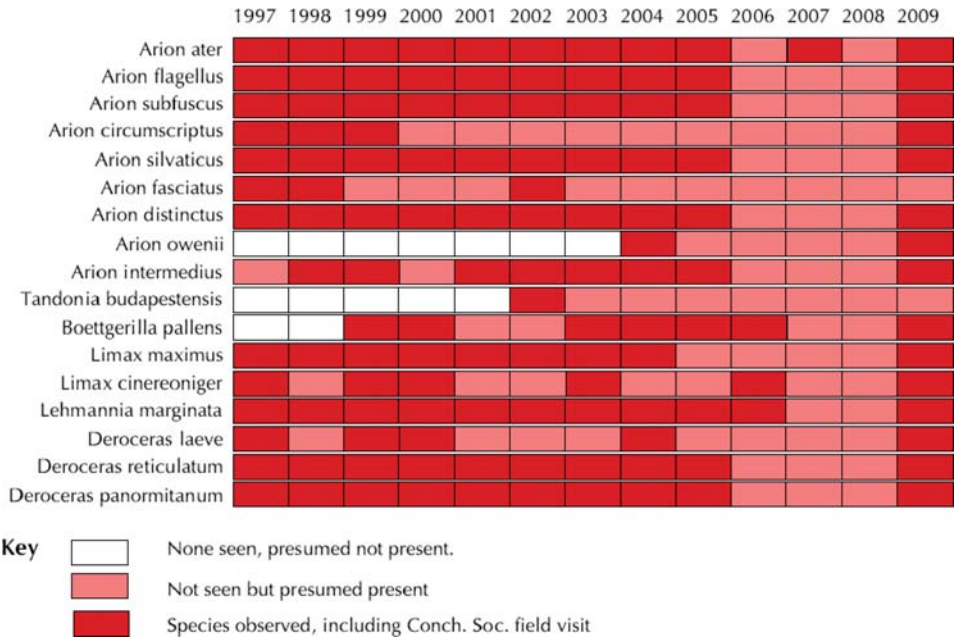


Figure 2 (Right):-
Slug species observed on Skye by year.

Simple and tender: Cooking smaller shellfish *Bas Payne*

If you find that cooked bivalves often turn out a bit tough, you might want to try this, which worked well on smaller chicken venuses (*Chamelea gallina*) collected near Plocton on the recent Skye field meeting - delicious and tender.

- A) Scrub and rinse the shells.
- B) Place them in a layer only one or at most two shells deep in a pan or bowl.
- C) Pour on boiling water about three times as deep as the shells (i.e. lots of water in relation to the amount of shell, so that they heat up quickly).
- D) Leave for 10-15 minutes.
- E) Pour the hot water off and eat.

It's probably even more important than usual to make sure that the place you collect the shells isn't polluted, as the shellfish are cooked relatively lightly; and for the same reason it's probably best not to use it on very large shells as they may not cook right through.



Above: Bas enjoying freshly cooked winkles on Skye (photo: Peter Topley)

The same method worked well also with winkles (see photo); and even better on another occasion with some fresh fairly small carpet shells (*Venerupis phillipinarum*) from Poole Harbour, when we started by lightly frying an onion in butter in a saucepan, pouring on a little white wine, then turning the plate off, adding the shells as in B above, and then pouring on boiling water etc. as in C-E.

Enjoy ...



Arion ater is well known to be very variable in colouration - from jet black right through to white. Until recently, however, neither of us had seen any pure white specimens. One of us (RC) observed three pure white individuals at Storr woodland (exotic conifer), Skye (NG5052) on 1st April 2009. About 300 metres away, along the same burn side, RC observed a second group of 9 pure white individuals. All these individuals were adult and, also in the area, were the usual pure black specimens. We should remark that, in Skye, *Arion ater* are almost invariably uniform jet black and they are abundant.

Arion ater is well known for its extreme reluctance to cross-mate. In fact, even after several years of walking over the *Arion ater*-infested Highlands, RC has only observed mating individuals once (27 May 2002, NG7117 near Kinloch, Skye). Self-fertilisation (or parthenogenetic reproduction) ensures offspring are closer in appearance and behaviour to the egg-laying parent than would be the case in conventional cross-mating. The appearance of several white slugs in two adjacent clusters, suggests a white founder-parent (perhaps

resulting from a mutation) producing several white near-clones. If the white colouration proves no disadvantage to survival or reproduction, there is no

reason why they should not thrive and continue to self-propagate more of their own kind. This might be preferable to going to the trouble of finding other slugs with which to cross mate in the hope of producing a more variable collection of offspring, some of which might be more fitted to survive in the woodland habitat.

We both revisited Storr in an attempt to find these white slugs in August 2009. Alas, the rain was so heavy that almost all slugs were sheltering too deep in the vegetation to be located. We found one recently dead white slug and a very few small non-white individuals. Whether the white individuals will survive sufficiently well to breed and establish a White Slug of Storr tourist attraction remains to be seen.

Photograph: *Arion ater* - white (by Roger Cottis)

We all know about these small cowry shells, *Cypraea moneta* and *Cypraea annulus* and their use as money and most members will know of many other past and present day uses. Towards the end of last year Celia Pain and myself watched a really fantastic and beautiful production of the Lion King at the Lyceum theatre, Covent Garden, London. The costumes and make up were the most original and imaginative that I have ever seen in a theatre production. But what we noticed more than anything else was that the costumes of the Lion King himself, the Lion Queen and their cub were covered in these little cowry shells in a series of very attractive and artistic designs and patterns (see Fig.1 and 2).



Figure 1
Andile Gumbi as
the Lion King
(from the
London
Company.)



Figure 2
The Lionesses
in the London
production of
Disney's The
Lion King)

It reminded me of the ancient African tribal regalia worn for religious, royal and other purposes. I found out afterwards that the costumes, masks and puppets were

designed by Julie Taymor and Michael Curry and the whole production was directed by Julie Taymor herself. To me it was quite obvious why the play has already run for 10 years and will probably run for another ten or more and I would encourage anyone who hasn't seen it to do so.

These ceremonial clothes, costumes and the headdresses are still made and used by African tribes for displays put on especially for tourists and high ranking visitors. Illustrated is a Mali headdress Fig.2 (in my collection).

This was a fascinating modern use of these little cowry shells.



Headdress of a Mali witch doctor (Photo: John Llewellyn-Jones)

Acknowledgements

The reference and the pictures (Fig.1 and 2) of costumes from the Lion King were kindly sent to me by Ryan Petersen of The Corner shop PR, the press representative for Disney's The Lion King and are reproduced here with permission.

Reference

National Geographic March 1969 Vol.135, No.3. P.430.

Meeting announcement

The Malacological Society of London

Molluscs as Environmental Indicators

Wednesday 14th April 2010, 10am-6.30pm
St Catharine's College, Cambridge

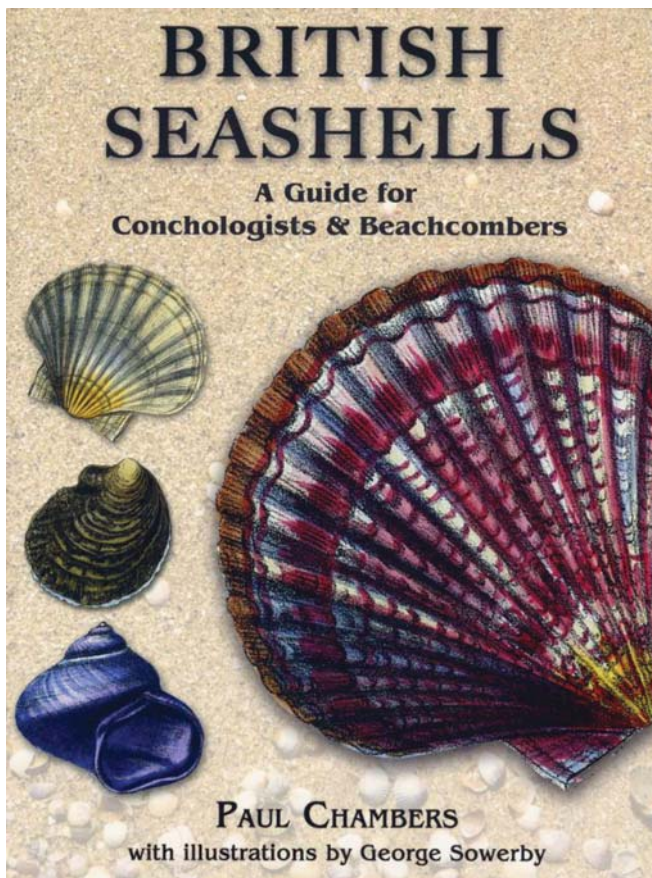
Please contact the organisers for further details:-
Richard Preece (rcp1001@cam.ac.uk) or
David Aldridge (d.aldrige@zoo.cam.ac.uk)

BOOK REVIEW

British Seashells: A Guide for Conchologists & Beachcombers.

Paul Chambers with illustrations by George Sowerby.

Pen & Sword Books, Barnsley, 2009. 233pp. Hardback. £25.00 rrp.



Hard on the heels of Paul Chambers' recent book on Channel Island Marine Molluscs (reviewed in *Mollusc World* no. 21), comes this celebration of some 400 species of British seashell (it does not include non-marine molluscs, sea-slugs, cephalopods or chitons), which live on the beach or in the shallow seas surrounding the British Isles.

In writing this book Paul does not set himself up as an expert on British Shells although he is very knowledgeable. The information it contains is a fortunate by-product resulting from many years spent combing the literature in university and museum libraries, as well as the British Library, to search out distributional information and records for the Channel Islands book. It should probably be said at the outset that although it is suggested that the book may be regarded as an identification guide - and it does indeed provide a concise description of species, the etymology of Latin names and vignettes of the shells - its true value rests as a compilation of information of cultural and historical significance and interest for Britain's seashells.

So this book is, as Paul Chambers claims, a novelty after a period of some 140 years. The subject matter of

the book has driven Paul's approach and style. He appreciates the natural historical roles of many of the early collectors and players in conchological studies in the British Isles, and he has attempted to impart something of a Victorian essence in the book. The original figures by George Sowerby for Jeffreys' *British Conchology* (1862-1869) have been used as illustrations. In their reproduced form they give some fair impression of the shell, although they could not be considered to be reliable for identification. There are other books, and these days, useful resources on the Internet, to cover stringent identification requirements.

This is a delightful compilation of quirky fact, conchological snippets and anecdotes, and sound historical information on Britain's marine shells. I suppose this volume fits within the genre of a Common-place book although this has always seemed to me to be a bit of a misnomer since often the information contained in such compilations is far from common knowledge. It's a book not just for your shelves, but to sit on a coffee table, or bedside cabinet, to be dipped into and to prompt the thought: "I didn't know that"!

Between its boards you can read that George Barlee was converted to shell-collecting after the death of his young son. Picking shells from the shore became his antidote to depression and he retired early to indulge his new enthusiasm for conchology. Then again, did you know that the elegant and aptly named Pelican's Foot seashell was called the 'blobber-lipped Edinburgh whelk' in the 18th century?..... And how the 'Five Shilling Shell' (*Macra glauca*) got its name.

Paul Chambers has attempted to draw out something of the 'personality' or character of shells, and the characters who populated the Victorian world of conchology. He makes the point that in recent times our attitude towards nature has become rather more dispassionate and clinical. This shift must in some part be driven by the need to focus on conservation and biodiversity studies of our molluscan fauna. Published in hardback with an attractive dust jacket, this book is presented to stand the test of serial thumbing. Despite its cover price, in line with current trends in the book retailing trade, you will already find it for rather less on Amazon's website and and it is also offered at a cut price by other booksellers.

Jan Light

The Highland Biological Recording Group and non-marine molluscs

David O'Brien (Vice Chairman, HBRG) and Chris du Feu

Skye falls within the area of the Highland Biological Recording Group, HBRG, founded in 1986 to stimulate public interest and involvement in biological recording; collect data on Highland wildlife through surveys; publish the results; maintain a directory of local specialists and recorders; transfer data to and from National Recording Schemes.

The HBRG welcomes records from the Scottish Highlands (of any species, not just molluscs) from any who visit the region - details of how to submit records, are in the web site at www.hrbg.org.uk. The group shares its records with national recording schemes, so if you already submit mollusc records to the Conch. Soc. Non-marine Recorder (which I hope you do) you can be sure they will be passed to the HBRG.

There are at least five reasons to submit mollusc records for the Highlands:-

1. The area (larger than Wales but with a very small population is under-recorded) is under recorded, so we have our work cut out trying to cover the whole region. There are some odd gaps in the mollusc distribution map. Surely there are more *Tandonia budapestensis* (Budapest slug) & *T. sowerbyi* (Sowerby's slug) out there? It's not as if we don't grow root vegetables in the Highlands!
2. A large number of recent Scottish records have been recently received by the Conch. Soc. Non-Marine Recorder and will be uploaded onto the NBN website. However for many species, even common ones like *Oxychilus alliarius* or *Arion ater*, more records are needed to build up a picture on trends or current distribution.
3. There are previously unsurveyed sites e.g. ancient semi-natural woodland which have turned up *Malacolimax tenellus* (Black Isle) and *Limax cinereoniger* (Skye & Easter Ross) over the last couple of years. There are probably some interesting coastal species too, and of course, the possibility of who knows what in some of the montane habitats.
4. Some of the rarer species like *Arion owenii* (one Highland record from Chris De Feu at Portree, Skye) could well be present but completely unrecorded - it's an undiscovered country.
5. Autumn in the Highlands is superb for fungi and hence mycophagous molluscs. Agriculture up here is also less intense than elsewhere in Britain so there are lots of opportunities to look at grassland species. Also contrary to Dr Johnson, it's not all peat bogs in the Highlands - there are plenty of base-rich flushes, many of which haven't been studied for molluscs.

There are now 125 members of the group, mostly living in the Highlands but several come from as far south as England and visit the Highlands from time to time. HBRG organises various field visits during the summer and has short-term and ongoing recording projects into some species groups. Membership is only £6 per year and members receive, annually, a copy of 'Highland Naturalist'



Highland
Biological
Recording
Group

which gives results of various surveys and carries articles about a wide variety of species.

We look forward to welcoming you to the

Conchological Society – Diary of Meetings

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

IMPORTANT: Please remember to inform the leader if you are attending a field meeting. If you are held up in traffic or your public transport is delayed, it may be possible to ring the Programme Secretary on 0794 109 4395 on the day of the meeting for information on the location of the field site being surveyed. Indoor meetings at the Natural History Museum will take place in the Dorothea Bate Room [Palaeontology Demonstration Room] at the end of Gallery 30, unless otherwise stated. Please note the earlier start times, and also the long indoor meeting in October with an early start time of 11:00 h. Please bring plenty of exhibits and demonstration material.

The Programme Secretary will be happy to receive any offers to lead field meetings or suggestions for speakers for indoor meetings.

Key to meetings

NHM = Natural History Museum, London, indoor meeting
FIELD = Field Meeting at outdoor location
WKSHP = Workshop on Molluscan topic
YCS = Yorkshire Conch. Soc. event

NHM - Saturday 27 March:

14:00 h in the Dorothea Bate Room [Palaeontology Demonstration Room], preceded by Council meeting:-

Annual General Meeting

Presidential Address by Sebastian Payne:-

Australian shells and the colonisation of Lord Howe Island

Abstract

The shell fauna of Australia is, by British standards, very diverse. Most families with which we are familiar from European waters are also found round Australia, though the genera and species are usually rather different, and diversity is generally higher. But there are also many representatives of much less familiar tropical Pacific families.

Lord Howe Island is a volcanic island about 400 km NE of Sydney; it emerged about 7 million years ago, and is surrounded by water over 1000 m deep. The shell fauna of Lord Howe Island casts light on how shells spread. Some families present on Lord Howe Island show high diversity and share many species with the Queensland coast, the Barrier Reef and New Caledonia. These clearly have no problem colonising distant islands provided suitable habitats are available. Others, however, show much lower diversity, and many of the species in these families are found nowhere else. These families are presumably less good at colonising distant islands, probably because their larvae settle more rapidly.

YCS - Saturday 10 April: Fraisthorpe, VC61. Contact: David Lindley

(0113 2697047) (home), david.lindley3@btinternet.com
Meet at 10:30 h in the coastal car park in Fraisthorpe, grid ref. TA 169627, for 1 km recording in squares TA15 and 16.

YCS - Sunday 9 May: Topcliffe for A1 corridor.

Contact: David Lindley
(0113 2697047) (home), david.lindley3@btinternet.com
Meet at 10:30 h in the small car park on the west side of the old bridge in Topcliffe, SD 397759.

THE DIARY CONTINUES ON THE FOLLOWING PAGE

Diary of Meetings – Conchological Society (continued)

FIELD - Saturday-Monday 22-24 May - Please note change of dates

North Wales limestone pavements

Leader: Adrian Norris (0113 274 5244) (home)

Over the past year or so, work has been undertaken to survey the molluscan fauna of Limestone Pavements in Yorkshire. In order to acquire some comparative data it is intended to visit two sites in Caernarvonshire in 2010. In order to be of maximum value the main samples must be taken from within designated areas of each limestone pavement. Although this is one of the main points of the visit there should be plenty of opportunity to investigate the molluscan fauna in other areas close by.

The two main sites designated as sample areas in Caernarvonshire are as follows: a limestone pavement on the Great Orme with a central point grid reference of SH7572583950, and a limestone pavement known as Bryn Pydew with a central point of SH8175779817. Bryn Pydew is situated just north of the A55 trunk road which runs between Colwyn Bay and Conwy.

Any necessary permits have still to be acquired, but this should not be a problem as this project is part of an on-going study of the pavements being undertaken by the University of Chester.

There is plenty of accommodation, of all types and costs, both within and surrounding Llandudno.

Meet on Saturday on the Great Orme at about SH766842 at 11:00 h. Pay the Toll fee of £2.50 for the Marine Drive which runs around the Great Orme and park in a small informal car park up a small track about 100 yards past the Rest and be Thankful cafe, which is beyond the Lighthouse. We should not have any problems parking in one of the two areas off that track

FIELD - Saturday 12 June

Flitwick Moor and Folly Wood, Flitwick, Bedfordshire.

Joint meeting with the Flitvale local Wildlife Trust group.

Leader: Peter Topley (0118 935 1413),
<molluscworld@ntlworld.com>

Bedfordshire's most important wetland and an SSSI, Flitwick Moor is a blend of fen, meadow, wet woodland and fragile peaty soil, supporting mosses, ferns and flowers. Although this is generally a low pH habitat, previous records include *Vertigo substriata* and it will be useful to update the mollusc records of this important reserve which harbours wildlife species unique to the county and beyond. Meet at 10:30h at the car park at the end of the small track at Folly farm, grid ref. TL 046354. Bring wellingtons and a packed lunch. The site is 1 mile from Flitwick station which is on the Thameslink line from London. Detailed directions and a map are available on the BCNP Wildlife Trust website at

<http://www.wildlifebcnp.org/reserves/reserve1.php?reserveid=19>

FIELD - Saturday 26 June - FRESHWATER MEETING

River Wey, Northern branch, Froyle, Hampshire.

Leader: June Chatfield (01420 82214) (home)

Meet at 10:30h at the service road by the Hen and Chickens pub on the A31, grid ref. SU 756421. Bring packed lunch. For those travelling by public transport there is a Southwest train departing London Waterloo at about 08:23 h arriving at Alton at 09:38 h, and bus no. 65 for the Hen and Chickens in Upper Froyle leaves Alton station at 10:00 h.

The northern Wey is a chalk stream that arises in Alton and is very rich in freshwater molluscs. Through Bill Stanford of the Bentley Fly Fishers (who will probably join us) we have permission to access private riverbanks to Bentley. We would particularly like to look for *Pisidium amnicum* and large mussels.

Members of the Northern Wey Trust and Alton Natural History Society may join us. Appropriate maps for the area are Explorer map 144 Basingstoke and Landranger map 186 Aldershot and Guildford. The leader would appreciate knowing who is coming to this meeting, please telephone 01420 82214.

FIELD - Saturday 3 July

Brockadale, Southwest Yorkshire.

Joint meeting with the Yorkshire Naturalists' Union.

Leader: Paul Symonds paul@gentian.plus.com

Meet in the Brockadale YWT nature reserve car park at SE 513174 at 10:30 h. The car park is 400 yards down Leys Lane, which is half a mile north-west of Little Smeaton on the minor road towards Darrington. Leys Lane is marked with a 'no through road' sign.

One of the features of the reserve is its limestone crags. Those within the woodlands may be cool and shaded in part, but the top of the south-facing cliffs with its thin soils bakes in the summer sun and provides a home for the only Yorkshire site for *Truncatellina cylindrica*. The snail is at present only known from a very small site within the reserve, but it may also occur on several of the other south-facing crags which occur along the valley sides.

Full details of this event can be found on the YNU website YNU.org.uk

YCS - Saturday 4 September Settrington area, VC62.

Contact: David Lindley

(0113 2697047) (home), david.lindley3@btinternet.com

Meet at 10:30 h in the village centre, SE 834703, for 1 km recording.

FIELD - Wednesday - Saturday 8-11 September 2010

Isles of Scilly MARINE MEETING.

Joint meeting with the Porcupine Marine Natural History Society. Co-ordination and contact for details: Angie Gall, Isles of Scilly Wildlife Trust (01872 240777 ext 243) (work)

This joint meeting in the Scillies is being hosted by Porcupine who are making arrangements for laboratory accommodation and boat transport to the various islands, for which there will be a charge of £35. Please contact Angie Gall to book the boats and lab space. The entire meeting is expected to run from Monday 6 September until Monday 13 September, but the Conch Soc component will run from 8-11 September when the best tides for shore work are. Ron Boyce will prepare health and safety documentation for the Wednesday/Saturday period.

Accommodation on the Scillies is in very short supply, so if you are planning to attend this meeting, early booking of your accommodation is vital.

YCS - Saturday 2 October

Upper Nidderdale, VC64.

Contact: David Lindley (0113 2697047) (home), david.lindley3@btinternet.com

Meet at 10:30 h in the car park in Pateley Bridge on the south side of the river, grid ref. SE 157654.

NHM - Saturday 2 October

11:00 h in the Dorothea Bate Room [Palaeontology Demonstration Room] Please note the revised start time. No Council meeting.

Please bring plenty of exhibits and demonstration material. There will be a lunch break at about 13:00 h. Lecture to start at 14:00 h. The programme is still at the planning stage but may include African molluscs.

Members are encouraged to bring specimens of any Mollusca for identification, a X20 binocular microscope will be available if needed.

Guest speaker at 14:00 h

Robert Cameron (University of Sheffield):-

Thoughts on an extraordinary snail: Helixena in the Azores and other molluscan oddities

THE DIARY CONTINUES ON THE BACK COVER

DIARY OF MEETINGS (continued from page 31)

NHM – Saturday 16 October

Full day meeting of Council only
11:00 h in the Board Room of the Natural History Museum

FIELD - Saturday and Sunday 23-24 October

South Devon: *Malacolimax tenellus* search.
Leader: Keith Alexander (01392 413092) (home)

FIELD - Saturday 30 October Wyre Forest: *Malacolimax tenellus* search. Leader: Rosemary Winnall
(01299 266489) (home) (07732 203393) (mobile)

INDOOR – Saturday 6 November

Regional meeting in Cambridge.

WKSHP – Saturday 27 November The Annual workshop

Held in Woking. Offers Members the opportunity to receive tuition on identifying difficult groups.
Bookings to Judith Nelson (01483 761210)(home)

NHM – Saturday 11 December

14:00 h in the Dorothea Bate Room
[Palaeontology Demonstration Room], preceded by Council meeting.
Guest speaker at 14:00 h: *to be announced*



About the Conchological Society

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

How to become a member

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

Ordinary membership £33.00, Family/Joint membership £35.00, Institutional membership (UK & Ireland) £47.00

Institutional membership (Overseas) £50.00, Student membership £15.00

Payments in sterling only, to the membership secretary (contact details are on our web site). 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. It is no longer necessary to sign a formal declaration. 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/storefront/seesubs.php>. Over-seas members may also pay using Western Union, but a named person has to be nominated, so please use the acting Hon Treasurer's name, Nick Light.

How to submit articles to Mollusc World:

Copy (handwritten, typed or electronic) should be sent to the Editor at the address below. If sending electronic copy using e-mail please include a subject line "*Mollusc World* submission". When emailing several large file attachments, such as photos, please divide your submission up into separate emails referencing the original article to ensure receipt. Electronic submission is preferred in Microsoft Word, but if other programmes (e.g. Works) are used, please indicate the programme used with the accompanying e-mail. Images and Artwork may be digitised, but we recommend that a digital image size no larger than 8" x 6" and 300 dpi be sent with your submission. For line art we recommend that you send hard copy, all originals will be treated with care and returned by "snail-mail".

Please send articles to:

Peter Topley, c/o The Hon. General Secretary, Miss R.E. Hill, 447b Wokingham Road, Earley, Reading RG6 7EL (or alternatively Peter's address may be found in the member's guide). email: molluscworld@ntlworld.com.

Advertisements in Mollusc World

We are pleased to invite advertisements, provided they are in line with the Conchological Society's charitable objectives and responsibilities. Typical examples might include books and other publications, equipment, services and collections of (or individual) shells. The latter will be vetted on a case by case basis and only accepted if there are no ethical problems. Advertisements of shells for sale from commercial shell dealers will generally not be accepted. A nominal charge will usually be made for advertisements and will be required from commercial advertisers. Charges per issue are currently £20 per 100cm² space for a boxed advertisement or £1.00 per line for a text only advertisement. Any requests for advertisements should be sent to the Editor by the normal route; information on preferred methods of payment will be given at the time.



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Photos: above: *Aplysia punctata*, near Strollamus, Skye (Ron Boyce)

below: Coming off the shore, near Strollamus, Skye (Jim Logan)