PALLIDULA

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THE MAGAZINE OF THE BRITISH SHELL COLLECTORS' CLUB

EDITORIAL

In this issue there is an important article by Tom Walker and John Whicher on CITES listed shells and species protected by European and British laws; I would strongly advise all members to read this carefully.

Thank you to all other members who have submitted articles and do please keep up the good work. I have used most of the articles that I have in hand and would be very grateful to receive new material for next April's edition, especially from members who have not yet submitted anything for our publication.

The Whichers' summer get-together in York in June was once again a great success with a whole-lamb barbecue and added entertainment; no less than two airplanes and one helicopter piloted by friends from the local flying club put on a low level flying display over John and Jenny's garden.

Despite the poor weather over the summer the weather on the day of the Editor's get-together in August was very favourable, and several members enjoyed a relaxing barbecue and lots of chatter about shells and shelling.

Don't forget to begin preparing your exhibits for the October Shell Show.

The Editor

Dates for your Diary

Plans are already in hand for future Club Meetings. Members may like to note the following dates:-

Saturday 31st October 2009	-	Annual Shell Show at Theydon Bois Community Centre
Saturday 24th April 2010	-	Shell Convention and Auction at Theydon Bois Community Centre
Saturday 26th June 2010	-	Scottish Shell Show in Edinburgh
Saturday 7th August 2010	-	Editor's Get-together at Yateley, Hampshire
2010 TO BE CONFIRMED	-	The Whichers' Shell Day at Deighton, York

SECRETARY'S NOTES

This issue of *Pallidula* contains an article about protected species of molluscs; while current legislation may only affect a relatively few members, the Club has to take note of legislation now in place. Do please read the article on page 18 and note which species will no longer be permitted to be offered for sale or exhibited at Club meetings. It is regrettable that the Club has to take this action, but we cannot be seen to be flouting National and European laws.

As mentioned by the Editor, the Whichers' Shell Day proved very popular, and the Editor's get-together also had good attendance. Those who came to our informal meetings all agree that they are well worth attending, as they offer a wonderful chance to meet friends and chat about shells without all the hurly-burly of the main Shows. It is perhaps regrettable that more members do not come and join in. The Scottish show in 2010 will be in Edinburgh in June (see ad. on page 23), but John and Jenny Whicher have kindly offered to consider holding a gathering with a barbecue in September 2010. In 2011 we hope to replace the Edinburgh meeting with a show in June at Chatsworth House in Derbyshire (the home of the Duke and Duchess of Devonshire), and that should be a venue not to be missed. The BSCC offers more than just its two big meetings at Theydon Bois; give our smaller meetings a try – you won't regret it.

Please don't forget to log onto THE BRITISH SHELL COLLECTORS' CLUB website and check out our regular updates and articles

http://www.britishshellclub.org.uk

SHELL SHOW 2009

The Annual Show this year falls on 31st October, at Theydon Bois Village Hall as usual.

The sheet detailing exhibit categories and how to enter is enclosed with this magazine. The Show will again be exhibited in the primary location in the middle of the main hall. It is hoped to draw on the success of the photographic category from last year's Show, this class now being a permanent feature of the Show, hopefully to be exhibited on vertical, gallery-style display boards and continuing to be judged by a members' ballot on the day (if you attend, please do remember to cast your vote).

We must not forget the primary purpose of the Show though, namely to exhibit shells themselves and all members are encouraged to consider an entry. Although the show is formally judged, the key thing is to have a wide and varied display of shells and shell-related items to provoke and stimulate interest for all. Yes, there are some big and often stunning exhibits, but they are not always the ones which either provoke the most discussion or win all the prizes so please do not be put off from placing an entry. Don't forget that everybody has to start somewhere and many first-timers have been very highly acclaimed.

It was extremely encouraging to see a number of junior entries at last year's Show and it is very much hoped that this will become a trend. It was also exciting to see numerous entries of British shells and for one of them to walk off with the COA prize for best overall exhibit (even if, ironically, the exhibitor was not actually British, although in a way that is very encouraging too). And, don't forget, that whatever the listed categories are this year, the Shellomania category remains for all exhibits which are not covered anywhere else in the Show.

As usual, the hall will be open from 7:30am for dealers and exhibitors, with general admission (free of charge as always) from 9:00am. Dealers, please book tables in advance with the Show Secretary to avoid disappointment (ideally by email to abmanuk@hotmail.com) and note the charge for tables remains unchanged at £15.00 for a 6 foot table for the day. All attending are also encouraged to bring items to donate to the Club's Bring & Buy box, which has been increasing in popularity with new members in particular, under the continued supervision of Judith Nelson.

Finally, can I please repeat the plea for judges. If you are on the list and would like to volunteer to judge at this year's Show then please do get in touch. If you are not on the list but would like to be considered either for this year or the future, then it would be great to hear from you. No judging experience is required, just a keen interest in shells and a desire to make a much-valued contribution to the Club.

I look forward to seeing you all at the Show.

Simon Taylor, Show Secretary

Auctioneer's Report - September 2009

Once again this year's auction proved very successful in spite of the current recession. The total takings for the 50 lots were £847.00 and due to the very generous donations from individuals and dealers, £469.90 went into club funds.

Apologies to Janet Sawyer for accidentally omitting her name from the thank you list in the last edition of *Pallidula*. I should like to do so now.

Due to the fact that I still have some additional material which was not used in May, there will be a small 20 lot auction at the October show. This auction is not open for email bids and lists will be available on the day of the show.

I am now accepting lots for the April 2010 auction and would once again appreciate any donated material. Beware 'Table Holders', I shall be on the scrounge at the October show!!! I hope to see you all at the October show.

John Fisher

THE 2009 BSCC CONVENTION

The Spring Convention: report and future thoughts.

Despite the one-off move into May from our usual date of the last Saturday in April, the Convention was very well attended and enjoyed. The weather was kind and those present, from founder members of the club to those attending their first event, were able to enjoy a chat and some refreshments either indoors or out. In the main hall, a wide variety of dealers stands had something of interest for everyone and the early afternoon saw one of the most hotly contested auctions for many years.

So, a success, but there is always room for improvement. This year we squeezed all the dealers, plus the auction lots, into the main hall by using the stage as well as having some display tables in the foyer. As many of you appreciate, the smaller hall has provided a very useful overflow for dealers in the past but, inevitably, those stationed there feel a little peripheralised and left out of proceedings, so we now endeavour to have all sellers together in the main hall with the other room used as a space to sit and talk or perhaps for workshops, exhibits, even lectures. With this year's good weather the room was largely deserted for much of the time, but if it were raining outside it would provide a valuable sanctuary.

Of course, this is not ideal for all; the stage can only be accessed via steps, for example. If you have any feelings on the matter and would like to make them heard, please don't hesitate to contact me or any other committee member.

A further suggestion has been made that we should explore the possibility of making the Spring Convention a 2-day affair, spread over both the Saturday and Sunday. Such an arrangement is common for shell shows across the globe and is a potential development for the British Shell Collectors' Club if supported. It would have to be the spring event which expanded as the Theydon Bois Village Hall is used on the Saturday night and the following day at the time of our regular booking in October. There are many other implications too (security, dealer support, member attendance, public transport and catering to name just those which leap immediately to mind) but I am sure all can be overcome if the Club genuinely wants its Convention to expand.

The committee would therefore welcome all members' input on this proposal, positive or negative, which could then be discussed at our next committee meeting in January. Please do let us know your opinions, by letter, email, telephone, chatting at meetings, whatever. As a committee we would be happy to make whatever arrangements are needed if the idea is supported, but equally we would not want to waste our efforts on something the membership feels unnecessary.

Please do let us know your thoughts on the subject. **Simon Taylor**

The cover photo for this issue features four species of Ovulidae: by Julian Joseph

Top: *Contrasimnia xanthochila* (Kuroda, 1928), 24.5 mm, East China Sea, trawled in 180 metres

2nd: row: *Cuspivolva rosewateri* (G. B. Sowerby II in A. Adams & Reeve, 1848), Philippines; left: 13.5 mm, right: 14.1 mm

3rd row: *Pseudosimnia carnea* (Poiret, 1789), 9.6 mm, Corsica

Bottom: *Calcarovula ildiko* Lorenz, 2006, 48.2 mm, Natal, South Africa, dived in 30 meters, 1993

I have had most of these shells in my collection for many years. The newly published book "The Living Ovulidae" by Felix Lorenz and Dirk Fehse has inspired me to take a much greater interest in the "allied cowries". On a recent trip to the Caribbean island of St. Lucia, I was fortunate enough, on the last day, to find a number of specimens of *Cyphoma gibbosa* (Linnaeus, 1758) living on greenish yellow sea fans in about 1-2 m. of water. I took a few, and the photo opposite shows two living specimens in a dish of water.

SOME OF MY FAVOURITE SHELL COLLECTING AREAS FROM THE ATLANTIC AND MEDITERRANEAN SEAS

by Noel Gregory

I am now lucky enough to live in southern Spain a few miles from the Alberon Sea Almeria. This then gives me the environment to collect from the area shells that can be uncommon, endemic or even rare from the Med. Much experience has now been gained gathering material from this area and the return journey through Spain, Portugal and France to my base in England. So I am delighted to share with you my favourite areas of collecting.

Unless there has been a storm or very low tide it is unlikely you will find much on most of the beaches. I don't say that these areas are not worth a visit but the real gems can only be found in fishing harbours or nearby. Unfortunately even in these places I have seen a huge drop in material that can be gleaned. A few years ago France and Spain made bottom fishing illegal and since then many of the ports have been cleaned of the detritus that came with the fish caught from this area. Even if the fishermen disregard this order and continue fishing the bottom, all of the shells, rocks and rubbish are thrown overboard before reaching base and are no longer left festering for us collectors. However this must not put you off visiting harbours all around the coasts and I have listed some of these that have proved in the past to be good for our hobby.

One area that I have found productive is the harbour of Roscoff in northern France. As soon as you get off the ferry the area to the left contains a heap of dredged material which always seems to be there, this is so huge and contains so much material that a days looking would never be enough time to view the hundreds of tons of shell grit. Much is fossil, but some heaps will give you fresh dead material and many species difficult or impossible to find on the beach.

Another great shell area is the harbour of Le Val-Andre but only at low tide where the huge exposed beach will uncover all the discarded material from the many active trawlers. You cannot fail to get dozens of fresh and live shells from here and at Erquay where there are so many colourful Pecten maximus to be found dumped that one is almost spoilt for choice if you can match the valves, I must add that because of the trawling metal nets used in their collection, many of the lips of the specimens are much damaged.

At the very productive bay of Mont St Michael, the area will show you at low tide exposed oyster beds producing all the subsequent species that either pray or live in the protection from the millions of shells these farms provide. At low tide a search of these oyster stands will give you this live selection without a huge effort.

Of course *Crassostrea gigas* and *Ostrea edulis* and in huge numbers *Glycymeris glycymeris*, *Chlamys varia* and *opercularis* in all colours including *concolour, Laevicardium oblongum* and *crassum*, *Callista chione*, *Venus verrucosa*, *Mercenaria mercenaria*, *Paphia aurea*, *Bucccinum undatum*, *Littorina nigrolineata, Littorea obtusa* and *saxatilis* with *Tellina crassa* to name a few of the common shells and before coming to the shell show 2009, I found the rarer *Homalapoma peloritanum* (dead), *Lamellaria perspicua*, *Haminoa navicula*, *Modiolus adriaticus* and many beautiful examples of the *Nucella lapillus* form *imbricata* sometimes referred wrongly as *Coralliophila rolandi*.

There is however an even better source of material and that is to look at the processing areas usually slightly inland and in reach from the sea by river estuaries. A good example of this is the Oyster farm of Le-Vivia-sur-Mer. near Cancale. Here you will find the large flat bottom collection boats used to transport the farmed shells to the sorting area where they are graded and cleaned ready for the table. Huge plastic bins are used for storage and waste material and if you are lucky enough to find these at the end of the working day before this waste material is returned to the sea, you will find a huge range of species, mainly live. It was in just such a bin that I was able to find large *Ocenebra erinaceus* including three total albinos, *Calliostoma granulatum* and *zizyphinum*, *Gibbula magus* in great colours, *Lunatia catena*, huge *Trivia monacha* and *arctica*, *Colus jeffreysianus*, and a full colour range

of *Clamys varia* together with highly coloured *Pecten m*aximus that only seem to flourish in the waters of this bay and in the Channel Islands.

The Atlantic coast around Santander in Spain has many small harbours within easy reach but these seem only to be productive when the crab and octopus pots are stored before cleaning. If you are lucky to be there at the right time when shells like *Neptunia contraria* and *Buccinum humphreysianum* (dark variety) can be commonly found together with the beautiful *Callistoma zizyphinum* v. *conuloides*.

The Mediterranean coast of Spain is extremely varied and I have collected in all of the fishing harbours there. Timing is again very important; one can visit the same port over again and only rarely have a good collecting day. All the more exiting to find on several occasions is an old discarded net or huge rock covered with detritus and fresh dead material. In the eight years of serious collecting I have now most of the larger species to be found in the Med and if I haven't been able to dive or otherwise find them in harbours then the ShellAuction.net has provided the rest.

You will know of the excitement of finding rare material and this luck has not passed me by with nets covered in one instance with a thousand *Clamys varia*, 500 *Clamys opercularis* v. *audouinii* and the same amount of *multistriata* and, yes, over a dozen of the rare *C. bruei*. This with another net containing over 1000 *Clamys flexuosa* and 5 *Schilderia achatidea* has given me the energy to continue to look and find some great specimens.

I think that the most exciting part of collecting is that at any time one can add to the list and further the study of rare material. This year I have found in the harbour of Almeria two specimens of the rarely recorded *Hexaplex saharicus* and from Montril, the Polinices, *Natica notabilis* which was taken alive from a small fishing boat and until now, never been recorded (except Morocco) from the Mediterranean.

This article could well develop into a book for I could continue to list the hundreds of species that grace the Atlantic and Med coasts. If you have any enquiries or you want to collect in the Almeria region of Spain, then please feel free to contact me by email: Casa El Espartal@hotmail.com.

THE VICTORIAN RARE 50 SHELLS: A BOOK BY S. P. DANCE

by Dave Charlton

I am a novice shell collector and have just started to collect shells again. I did collect local shells when I was a youngster. I remember Nora McMillan in the Liverpool museum. However, I had not collected any until the foot and mouth outbreak stopped my mineral collecting, but I could still go on the local beaches, and I got interested in shells again. I had seen a book on the Victorian rare 50 shells, and comments were made that it would have cost a fortune to acquire all these because most where unobtainable. Somebody else said it is still almost impossible and would still cost a fortune to assemble in today's world.

In 1969 Peter Dance published his book "50 Rare Shells" in which he illustrated and discussed fifty shells which had an interesting and often exciting history. At some time during the past each of those species was considered 'rare' and virtually unobtainable no matter what assets that one had available. While many of the species are now common and easily obtainable for a pittance compared to their former cost, assembling a collection of all fifty even today poses a formidable challenge. The red rag part: can I do it? Why not, on my terms?

I wondered if I could do it on a shoestring budget. That would be a good idea. I am not on the internet but neither where the Victorians, so no internet. Rules: do I need any? I don't want to use the internet; British dealers if possible; I don't need gem shells. Any quality will do as long as recognisable, or should I try and obtain a bit better quality as long as they are cheap. Try and obtain all or obtain as many as possible as cheap as possible. How close do I think I can get? As a novice I don't know these shells yet, so I have asked if I can have a list of the 50 with a photo of each shell. This was obtained off the internet for me. First rule broken? Accepted. I need a list and photographs to help identify the shells and I tried to buy the book but it was not available.

So would it be possible? It should be; time scale - say 10 years? I believe these would all be obtainable if you had lots of money and the internet? Possibly in weeks, but by limiting the buying to shell shows or call on British dealers or worldwide dealers, if possible should take 8-20 years to complete if possible to do. Should I govern myself to obtain the cheapest possible shells?

So if I can achieve the personal challenge then I could be only the second in the world to report the rare 50 collected. Lots more people have been to the top of Everest or to the Moon. It's still a good challenge and worth finishing. As a novice it could be a challenge to see how many I could collect.

Ten of them would be easy under £10 each - 40p my cheapest up to now. The next ten not too bad - under £20 each. The third ten possibly under £50 each. The fourth ten could cost a fortune? The last ten is the real challenge. I don't think I will ever have the money to waste to collect the last 10 shells. The last few will be the biggest problem. The two slit shells, two pricy cowries, one cone, one volute and *Pholadomya candida*, a rare bivalve. The pitfall if I go as cheap as possible is that I could possibly be the owner of some real rubbish shells, but the owner of all the rare 50; I would have achieved my challenge and to have done it my way. Yes, it still looks a good challenge to me.

I reckon if I use the internet it could be done in a few months with a lot of funds, but just going to the dealers at shell shows it could take ten years. The challenge is on – to obtain as many as possible in ten years as cheap as possible; at this time do I think the rare 50 is possible my way?. Only one other person has achieved it up to now. I'm up and running. The cheapest early shell was *Strombus listeri* at 40p.or 3 for £1.20; the price is the governing factor not quality.

It's now 3 years by 2006 and has worked out very close to what I anticipated. The two slit shells, one volute, one *Pholadomya candida* and the cowries are just obtained. Another four to go – possible but pricey?

A couple more were acquired at the October 2008 Show, so only 2 to go now; getting very close.

Then just got one more and a chance in a few months of the last one. Done, dusted, finished.

A second person who has achieved the 50 has contacted Peter so I will have to see him to get some photographs. I wanted to get to Carlisle to see Peter before Christmas but my leg has been bad so I put it off until the Scottish shell show in February 2009.

The photograph below was taken of all fifty shells at the Scottish Shell Show and they were also on display in April at Theydon Bois.

It has been done by only one other person in the world: Jacksonville amateur malacologist Harry G. Lee was presented Mr. Dance's book as a gift in 1976 and he aggressively embarked on a quest to assemble a collection of all fifty. Now some 22-plus years later, the goal has finally come to fruition - no small task when one considers that even today some of the species are known to science from about a dozen specimens.

It has been said to me: “I wonder if some shells might become extinct because of Mr Dance’s book?” I hope not too many people have a go as it could be problematical, as depleting the natural stock might make them really rare. I replied that if only a few people achieve the goal of the 50, I don’t think a few shells would make any species extinct. They are more likely to go extinct because of world pollution.

What’s the next challenge?

What about the most northerly and southerly, the deepest and the highest shell possible?

One from each desert or mountain range?

Or the 100 oddest localities?

SPRING IN WESTERN SCOTLAND
by Graham Saunders

At the latitudes of north west Scotland in spring sunset is about 10.30 pm and sunrise at about 4.15 am and it is possible to exploit both low tides. Methods ranged from beach combing, sand sampling, wading, and snorkelling and giving a scallop diver rubble sacks and £20 notes.

Isle of Skye – Lower Breakish 18th - 20th May 2008
Most of the dead shell was singles of *Dosinia exoleta*. There were two fairly fresh *Calliostoma zizyphinum*, the only beached specimens I found in the entire trip. These were large, heavy, light coloured shells.

Isle of Skye – Loch Sligahern off Sconser 20th May 2008
From rubble and dead shells collected offshore at 8 metres I retrieved a series of interesting species. These included *Palliolum striatus*, *Chlamys opercularis* and *Gibbula tumida*. There were a couple of *Emarginula rosea* which indicate a strong current at seabed level. I had some worries about the *Palliolum striatus.* There appeared to be anatomical differences between the two live specimens (colour, proportions etc.), but the state of preservation was deteriorating when I examined them. I am now advised that the visual differences are associated with stages of their breeding cycle.

Dead material included *Myrtea spinifera*, *Tridonta montagui*, *Gouldia minima*, *Timoclea ovata*, *Parvicardium scabrum*, *Parvicardium ovale*, *Myrtea spinifera*, *Tapes rhomboides*, *Heteranomia squamulata*, *Gafrarium minimum*, *Circomphalus casina* (fragment), *Astarte montagui*, *Turbonilla lactea*, *Neolepton sulcatulum*, juveniles only of *Hinnia incrassata*, *Onoba aculeata*, *Rissoa parva*?, and *Corbula gibba.*

Chamelea striatula is gathered and eaten here. For a number of years I was convinced by the argument that this is a synonym of *Chamelea gallina* and only a regional form. Populations of each are present and visually distinct in the Inner Hebrides. Have we got it wrong yet again? Some years ago *Venerupis senegalensis* (*pullastra* as we used to know it!), were harvested but to quote one of those involved 'I made money but not profit from them'. The trade has subsequently been swamped by *Tapes philippinarium* which (further south) breeds faster and is cheaper to harvest. They, in their vast numbers, filter out the veligers of other species and become dominant.

Isle of Skye – to the North of Broadford opposite Scalpay 19th May 2008
There is commercial scallop farming here. Mostly this is for *Chlamys opercularis* as they can be 'grown on', in lantern cages suspended in mid water. One farm is based on 3,000 lantern cages 18" wide with ten vertical compartments; of these 2,000 are active at any given point in the 3 year cycle. They are long lined with, in July, spat collectors strategically placed. These nets are the shorter version not to be confused with the longer version known as Japanese. Japanese lantern nets are now made in China. They are harvested in response to direct orders rather than sent to market. There are at least four designs of 'growing on' nets, with different applications. The farming of *Pecten maximus* presents more problems although it is potentially more profitable. *Pecten* produce vast numbers of veligers which are collected by suspending onion bags stuffed with old nylon fishing line. The spat settle on the lines and continue to grow until they are large enough to sort. It appears that *Chlamys nivea* is more likely to settle on the outside of the bag than on the nylon line with *C. opercularis* and *P. maximus*. I had imagined that the deployment of spat collectors was arranged to optimise the settlement of spat from the farmed scallops. This was another incorrect assumption as the spat do not normally settle in the first week and the dynamics of the Sound of Raasay sub-polar gyre would not bring them back to the farm at the correct stage of development. One effect of the gyre is to retain the spat in a fairly well defined sea area. The harvesting of spat does not materially diminish numbers available for natural settlement as most the ones you rescue would not otherwise have survived. The farming is

adding astronomical quantities of spat to the plankton. Most of them get absorbed by filter feeders and only a tiny proportion will live to settle and survive. I am told that other Pectinidae spat also settle but they normally discard *Chlamys nivea* and the rarer *C. septemradiatus*. They have offered to 'farm' the *C. nivea* for me. They appear to grow to 8 mm in the first three months and at least 25 mm per year over a three year farming cycle. On July 22nd Bob Parry lifted two third-year lantern nets. There were twelve 'incidental' white *Chlamys nivea* all between 45 mm and 50 mm and one *septemradiatus* about 40 mm. The farmed shells tend to be a little taller in relation to width than shells which have grown unattached on a shallower substrate. Two more nets were lifted on July 28th and 19 *Chlamys nivea* were found; of these only 11 were white. Two were orange, one lavender, one apricot, and the rest mottled brown. Again there is only one *C. septemradiatus*! Note that these would normally have been discarded at 15 mm first sort. Another net was lifted on or about the 16th August. Again, there were 19 *C. nivea* and of these 2 were orange, two whites had orange ears and there were also 3 mottled purple/brown. This time there were fewer encrustations. Encrustations are usually barnacles and tube worms with a few beautifully corrugated *Amonia*. There was also a 12" *Atrina fragilis,* very solid, heavy and triangular, with a *Tectura virginea* attached to the lip.

At the end of August a spat collector was lifted. On the inside were one year *P. maximus* and *C. opercularis* and on the outside were 40+ *C. nivea* and 3 *C. septemradiata,* all 25-34 mm, the latter at the lower end of the size range, and all free of encrustation and barnacles.

Pecten maximus need more space and are not ideal for cage culture where they can distort severely. Having noted that, I have seen, on the internet, comparative data relating to lantern culture and 'oyster bag' culture for *Pecten maximus*. Although mid-water lantern net culture offers a faster rate of growth, probably due to better plankton circulation and less intense competition for it, the quality of the muscle, which is what people actually eat, is significantly reduced by restricted exercise, below that of 'free range' examples. 'Free range' scallop farming presents special problems. Divers are licensed to harvest scallops but they have little control of the seabed and are vulnerable to other divers taking their scallops or dredgers chewing up their stretch of seabed. In theory they can apply to the Scottish Office Aquaculture, Environment and Fisheries for a '*Several Order*' granting legal right of ownership of their stock, but try policing the situation! There are current problems with commercial scale piracy. In ideal conditions it takes 5 years for a scallop to reach commercial size, moreover, a concentration of scallops attracts natural predators. David Oakes operates in 75 ft of water, constrained by decompression tables to 3 dives a day. He has been in the business for about 20 years and has a good working knowledge of the interactions of various species. His view is that *Pecten maximus* should not be harvested until seven years old as a four year old *Pecten* generates about 300,000 spat but a six to eight year old generates several million. His spat grow by about two centimetres a year against five in Channel Islands populations. A Skye scallop has twice the weight of white muscle compared to a shell of comparable diameter from Jersey. He has found that *Modiolus modiolus* is very sensitive to pollution. It requires the same conditions as *Chlamys opercularis* but if you seed a *Modiolus* bed with *Pecten maximus*, the *Modiolus* bed dies. In suitable substrate conditions *Pecten* excavate pits to about 15cm depth and eject sediment into the current. The sea bed is actually lowered and the *Modiolus* become exposed and vulnerable to starfish predation. Starfish, which would otherwise predate scallops, find *Modiolus* an easier target. The *Pecten* population benefits from the death of the *Modiolus* as they would have filtered out uncounted millions of *Pecten* veligers. Are other *Pecten maximus* populations behaving in different ways? I have not found enough live ones in other environments to be certain. Commercial dredgers believe they have to make multiple dredging runs at different angles with a twenty centimetre cut to get them all.

On some old rope which had spent time in deep water I found a mass of algae filled with adult *Musculus discors* and some *Hiatella arctica* (?). It appears to me that there may be two *Hiatella* gene pools and I am not sure which one Linnaeus had access to, hence my question mark. There were several intensely spiny juvenile *Chlamys distorta*. I had hoped to find a live example

of a smooth form of *Chlamys nivea* which seem to be distinct from the larger scaly variety which I have never been quite certain were true *Chlamys nivea* and compare the anatomy. There is a lot I have yet to learn as even anatomic differences seem possible within a species. Post trip note: David Oakes says that the visual differences to the shape and colour of the soft parts are associated with the stage of breeding cycle of each individual.

Early September 2008, David Oakes reports a single fresh dead *Neptunea antiqua* at 75ft in the Sound.

Isle of Skye – Sound of Raasay 20th May 2008
David Oakes, a commercial scallop diver, got me a bottom sample from 75 ft. This was mainly stone but from an area where, if you disturb the bottom, sediment immediately clouds the water and visibility is lost.

From his earlier findings he also gave me a number of *Arctica islandica*. These were thinner shelled and larger than specimens I have seen from American or other European waters. This is a long lived species but I expect these were younger – maybe only 100 to 150 years - and faster growing. There was also an exceptionally large *Laevicardium crassum* and a large *Pinna fragilis.* The latter, taken about 15 years earlier, is probably now locally extinct due to the habitat disruption of dredging and trawling. From the bottom sample I retrieved a live example of the banded form of *Margarites helicinus*. Surprising at this depth were also live juveniles of *Gibbula umbilicalis* and tiny fragile and translucent *Rissoa* with *R. parva* like commas. Although the number of actual specimens was small, a large number of different species were found including a *Pecten maximus,* a *Pododesmus patelliformis, Tectura virginia* and a large crabbed *Buccinum undatum* with a violet aperture. Amongst the grit was a dead *Mangelia* sp., possibly *attenuata*, quite a few juvenile *Timoclea ovata,* a *Corbula* and a couple of juvenile *Clausinella fasciata. Thyasira flexuosa* was present as fresh dead singles.

From a mid July update I am told that in the waters between Skye and the mainland, up to 350 m deep and normally cold, the water temperatures have risen, leading to huge algae blooms and low visibility. There are no Lions Mane jellyfish this year. There are very few small fish about and puffins and other seabirds are scattering into areas where they do not normally fish. Their breeding is abandoned. Skye *Pecten* spawning is normally coordinated in July and this is not happening this year. Spat release is gradual and incomplete this year. I am told this is because the Sound of Raasay minor sub-polar gyre has now broken down and does provide a barrier to warmer currents. It is not known what the long term effects will be. It is said that crabs, starfish and urchins take the majority of juveniles up to five centimetres, beyond that the survival rate is much higher. Divers and scallop farmers throughout the UK pool data via the internet in the hope recognising and understanding trends and patterns. There is considerable concern that the food chain is being disrupted by enhanced fishing technology which permits trawlers to accurately target the shoals of fish that do exist. Catches are larger, creating a false impression of abundance.

Isle of Skye – between Coral Beach, North of Dunvegan, and offshore rocks linked by shallows 19th May 2008
Drive about 3 miles North from Dunvegan, then follow signed footpaths for a couple of miles, ignoring the first couple of areas of sand you come to, as the maerl beach, where shells are actually deposited, is round the corner. I suggest trying just at the turn of the tide. I was trying to snorkel in relatively shallow water but the inshore current was the best part of 10 knots which made things a little hairy. With better timing, I am sure I would have found much more. *Dosinia exoleta* is big and abundant. Inside some of these were tiny Chitons. The *Venerupis senegalensis* are the largest I have ever seen. The only other Venerupids seen were worn singles of *Tapes rhomboides*. Most material was dead but I found two small live *Clausinella fasciata*. There were several *Ensis arcuatus* in fresh but bad condition and fragments of *Ensis siliqua*.

Gairloch – beach one mile to the North 22nd May 2008
I came here hoping for another sample of the fantastic shell sand drift line that I found twenty years earlier. It was not there. A sprinkling of dead shell scattered the entire beach but nothing unusual was about. There were of course *Tellina tenuis* (some very large), dead *Ensis*, *Dosinia*, *Lucinoma* and *Chamelea* with small numbers of dead *Nucella* and *Littorina*.

Lochaline – near ferry jetty 23rd May
The big *Modiolus* beds which, 20 years ago, were in muddy rocks at low tide are gone. There are still some *Patella, Mytilus* and *Littorina*. Dumped *Pecten* refuse was seen in the shallows.

Isle of Mull – Calgary Bay 23rd, 24th, 25th May
This is a gloriously beautiful white-sand beach, sufficiently remote to avoid having too many visitors. The one hotel describes its self as a 3* restaurant with rooms. The food is the best on Mull and the extensive grounds are surreal (full of unconventional art). I invested a lot of time in pursuit of a fresh articulated pair of *Lucinoma borealis*. I even attempted to assemble all the singles I could assemble and tried to re-match them, to no avail. Gulls break any that look fresh. There were no micro-shells in the normal drift lines but I did find traces of shell sand among rocks at the Northern end (very limited, mainly *Rissoa parva*, *Onoba*, *Turtonia minuta* singles, two *Hiatella*, a *Tricolia* and an *Oenopota rufa*). The only trace of Naticids was drill hole in a *Chamalea striata* – prime suspect *Polinices catena*. There were also a couple valves of large fresh dead *Spisula subtruncata* and a *Spisula solida*. *Tellina tenuis* were large. There was also one valve of *Donax vitatus*.

Isle of Mull – Pennyghael, Loch Scridain 25th, 26th 27th May 2008
Collecting here was early morning and evening, mostly failing to utilise the best of the tide. There were a few interesting shells at high water mark including the only adult *Mya arenaria* of the trip. I had seen a scattering of dead *Ostrea edulis* on the foreshore but had been sceptical as to their provenance, however, there proved to be quite a few live ones in the shallows. No one seems to eat them here. There are probably not enough for sustained commercial exploitation. Turning sublittoral boulders, I found two dead but perfect *Tectura testudinalis*. This species has given me problems for more than 30 years and, despite my continuing efforts, this is the first time I have found reliable UK examples. I have examples from Nova Scotia and these corresponded well with this material but in the early 70s I found large numbers of *Acmaea* or *Tectura* under boulders in shallow water by a park in Stavanger. These appeared to be clearly separable into two species and I, in my ignorance, assumed one must be *virginea* and the other *testudinalis*. Over the years I traded off most of the material under those names and no one complained. With the benefit of hindsight I no longer believe they could be either and there must be at least one other, potentially un-described, species involved. There was one exceptionally large, articulated but very dead *Gari depressa*.

There were several large dead *Chlamys* singles in the shallows. At the time I did not pay as much attention to these as I should have and I only retained a small sample as they all looked the same. I subsequently re-read Jan Light's work and re-examined the dead/sub fossil material. With some consternation I quickly recognised that these were all obvious 33 rib *varia*. I persevered and eventually found one 65 mm live *Chlamys nivea*, the normal white form, and larger than those I have from Skye. If *Chlamys varia* is locally extinct and *Chlamys nivea* has taken over the territory one should re-examine the relationship and status of both populations. There are whole series of possible explanations. One of these is a pocket, relict population overtaken by extinction. Are there different environmental requirements?

Chlamys nivea are reported as normally living attached to rocks by byssus threads. This does not make good ecological sense as an attached scallop is an easy meal for a starfish. I have only seen live adults free swimming. The adolescents from the scallop farming operations are attached, but to mid-water anchor points where they are clear of most predators. The ones that ended up by accident inside the lanterns were free swimming. I have found live *Chlamys varia* attached under stones and nowhere else. They were usually dark coloured. It is possible that

free swimming populations of *Chlamys varia* do exist I have never been able to corroborate this. Although *Chlamys nivea* is usually perceived as a white shell, coloured forms seem to represent 14% of some populations. The colours tend to be more muted than those of *C. varia* but there is a considerable range. Some are very beautiful. One has violet rays inside a white shell. Some are white with orange ears. White *Chlamys varia* are really rare.

Isle of Mull – Loch Scridain, Southern side near the head - 26th May 2008.
The usual dead material such as *Dosinia* and *Ensis* in moderate quantities, a *Gari fervensis* single, but there were also a few micro-shells (*Bittium* and *Rissoa* only) in the drift line.

Isle of Mull – Fionnphort beach near the Iona ferry 27th May 2008
Nothing exciting, *Lucinoma* singles, a large flattened *Trivia monacha* plus several normal examples*, Patella, Littorina* and *Nucella* on rocks.

Isle of Arran – Catacol Bay 26th and 27th May 2008
This rocky shore appears unpromising at first sight but broken material thrown high on the foreshore indicates a varied sub-littoral fauna and seabed. There were fragmented *Neptunea*, *Colus* and *Buccinum* as well as sand dwelling species such as *Ensis arcuatus* and *Venerupis senegalensis*. Try it during a Spring Low with snorkel.

Isle of Aran – Kildonan beach below the stores 29th May 2008
Limited ranges of species, but large numbers of *Littorina, Nucella, Patella vulgata*, *Gibbula umbilicalis* and *cinerea* and a few *Mytilus* were present. The *Gibbula cinerea* were particularly nice specimens with no spire erosion.

Isle of Arran – Brodic near the castle and the Golf Course 30th May 2008
Modiolus, fresh dead, *Cochlodesma praetenue*, *Thracia, Littorina* and a few *Mytillus* were present. Below the golf course there were a few fresh pairs of *Tellina tenuis*.

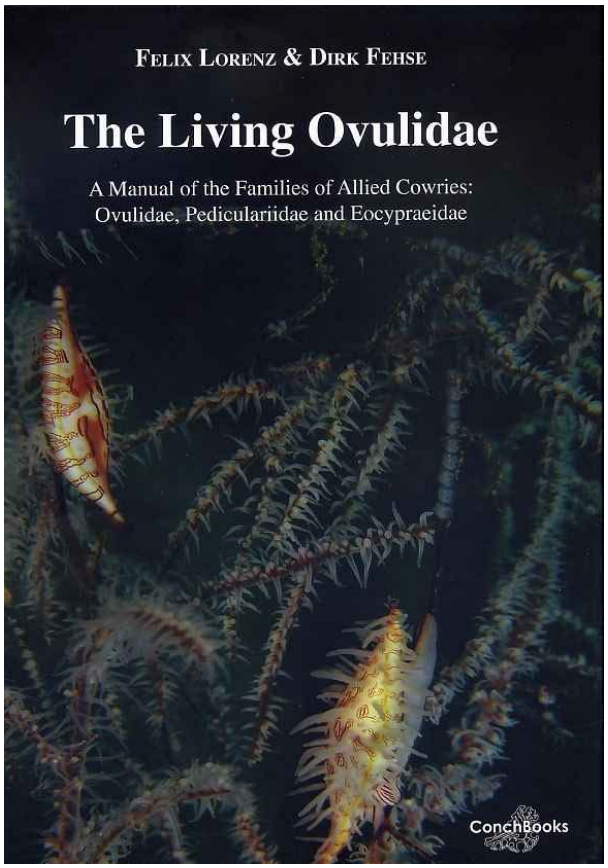
Isle of Arran – Corrie - small harbours with red sand beaches 30th May 2008
Very large singles of *Laevicardium*, *Tapes rhomboides*, *Venerupis senegalensis* and *Mya truncata* lay in shallow water. There were broken *Ensis siliqua* and *E. arcuatus,* which will have been local and quantities of *Pecten* trash which may have been dumped there.

Morcombe Bay – beach and flats 31st May 2008
This vast expanse of soft unpleasant grey mud and muddy sand with barnacle covered stones on the foreshore extends beyond the horizon at low tide. One cannot avoid sinking into the mud and it is very difficult to clean up afterward. The number of actual species is quite low but the overall quantity of shells is large by virtue of the vast size of the beaches. There were no *Gibbul*a but a few *Littorina* on hard surfaces. Immature or stunted *Cerastoderma edule* were present. There were a few very small *Mya arenaria* and some *Scrobicularia plana*, all looking rather stunted. In a pool I found a single large Chiton.

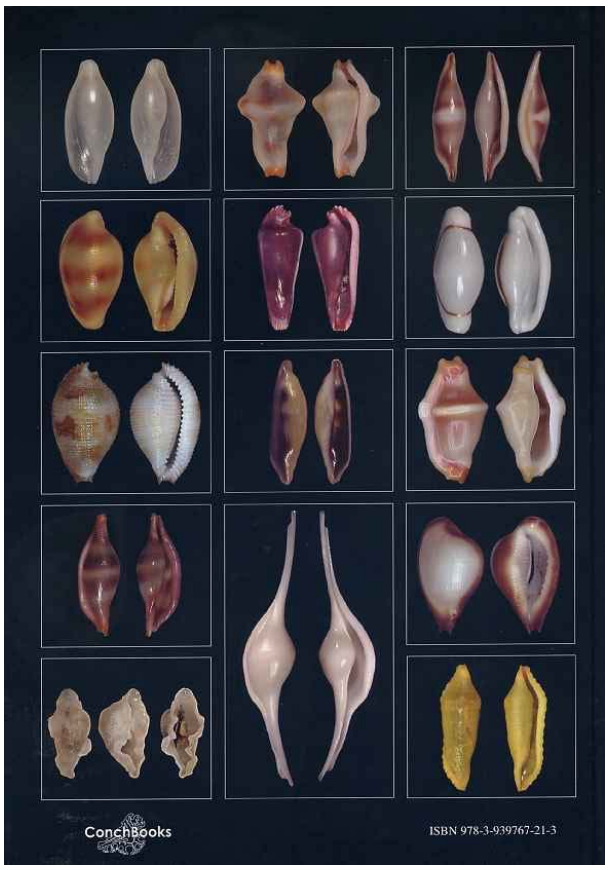
Off Bournemouth and Studland, early 1990's update
I finally have a potential explanation for the large *Lima* that, for a while, turned up offshore in small numbers. It looks as if they were from veliger transfer by courtesy of the moon pool of HMS Challenger returning from a trip to the AUTEC sonar ranges off South Andros. There is a marked similarity to *Lima scabra scabra* Born from that population. Water in the moon pool does not mix with the open sea while the ship is under way but does as soon as the ship anchors. There is a kinetic barrier. The operators told me that a community of fish was also relocated in this way. I was formerly Finance Officer for HMS Challenger and involved in the earlier stages of the project.

BOOK REVIEW by Julian Joseph

The Living Ovulidae
by Felix Lorenz and Dirk Fehse
ConchBooks, April 2009, ISBN 978-3-939767-21-3



The 'allied cowries', are a group of gastropods about which relatively little is known, especially compared with their close relatives the Cypraeidae. They comprise the families Ovulidae, Pediculariidae and Eocypraeidae. Although the shells are generally not as colourful as those of the cowries, they are nonetheless very attractive, and include a few desirable rarities, the most famous of which is undoubtedly the spectacular *Sphaerocyprea* (formerly *Chimaeria*) *incomparabilis* (Briano, 1993). More attainable but still highly collectible are the large and familiar *Ovula ovum* (Linnaeus, 1758) and *Volva volva* (Linnaeus, 1758), the Caribbean genus *Cyphoma*, and the brightly coloured shells of such genera as *Prosimnia, Crenavolva* and *Cuspivolva*. Most ovulids are parasitic on various types of soft corals.



This work is the first comprehensive revision of these gastropods since Cate's paper 'A systematic revision of the recent Cypraeid family Ovulidae (Mollusca: Gastropoda)', published in The Veliger in 1973. The book is similar in format to Lorenz and Hubert's Guide to Worldwide Cowries, and summarises all available knowledge of the group. It provides concise but detailed information including distribution, description of all taxa, comparisons with similar species, and taxonomic discussions. It introduces four new genera and 19 new species. There are 203 plates showing very high quality and clear colour photographs of all species, including a wide range of variations for each species, and 374 colour photographs of the often extremely intricately patterned and colourful living animals on their hosts.

The authors are both recognized experts in the field. Felix Lorenz, a well-known authority on the Cypraeidae, of course needs no introduction. Dirk Fehse is less well known to amateur collectors, but has published a large number of scientific papers on Cypraeids, especially Ovulids and Triviidae, and described many new taxa.

BOOK REVIEW by Kevin Brown

Seashells on my Mind
by S. Peter Dance

56p, paperback, IBSN 0-9659091-4-6
Published by Shell Island Resources, Iowa, USA, 2009
copies available within the UK from the author:
Cavendish House, 83 Warwick Road, Carlisle, Cumbria CA1 1EB

As a pre-eminent conchologist Peter Dance needs no introduction to members of this club. His recent book 'Out of My Shell' (see review in *Pallidula* April 2006) also showed him to be a notable raconteur. His latest publication 'Seashells on my Mind' shows two further sides to Peter – as a poet and an artist.

Here Peter has taken some twelve species which have inspired him – whether through their beauty or the histories and stories associated with them – and for each presents us with a painting of the shell, a poem resulting from his meditations about the shell and a brief account of the shell which also tells how and why each has a special meaning for him. Finally each species is shown in a colour photograph.

The molluscan muses selected include *Oliva porphyria*, *Astraea heliotropum*, *Acteon eloiseae* and *Thatcheria mirabilis* – species beautiful enough to inspire anyone – and *Hexaplex trunculus* and *Epitonium scalare* whose stories are more intriguing.

Not being a literary critic I can only say that the poems range from the moving to the amusing, and not being an art critic I can only say that the shell in each painting is recognisable, which is more than can be said for some early shell books!

This publication will not only appeal to collectors with an existing interest in shells and all things shell-related, but may also go some way to explaining the appeal of shells to non-collectors.

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Some of the Shell Art exhibits at the Sanibel Shell Show, Florida, March 2009
all of the flowers and the pine cones are made of shells
it is amazing what can be done with a little bit of imagination and a lot of skill.
photos: Tom Walker

PROTECTED SPECIES and THE BSCC

by Tom Walker and John Whicher

Members will be aware from 'Secretary's Notes' in the last two issues of *Pallidula* that there is now stringent legislation in force concerning the collecting and possession of certain species of molluscs. The regulations may well affect those who collect European shells, whether marine, land or freshwater. These notes are offered as guidance. None of the regulations preclude the need for responsible collecting, and notes about this are included on the BSCC website under the 'Good Practice' link from the Home page.

The regulations are complex and a minefield for anyone who tries to understand them in detail. There are regular amendments which may add to or cancel earlier requirements, and one set of regulations may be at variance with another. What follows gives a synopsis of how each piece of legislation affects both the BSCC as a whole and individual collectors. How individual members react concerning those species where it is now illegal to possess specimens without a licence is up to them – the Club will not be offering advice on this matter!

It must be remembered that many countries have their own legislation concerning the collection and export of shells, which may be very strict, with punishments including fines and imprisonment. It is not possible to list all local regulations. Travellers are recommended to contact embassies, local shell clubs, etc. for information prior to travelling. Most countries (e.g. Kenya) now have web pages explaining their policies.

CITES – Convention on International Trade in Endangered Species

As the name implies, this document is concerned purely with international trade. It does not apply to collection or possession of shells. There are several shells in Appendix I (all *Achatinella* spp. and many freshwater Unionidae) which are subject to very strict legislation, but these are unlikely to be of interest to most Club members (see the reference given below for the full CITES lists).

Appendix II lists species where regulations are not so strict and trade is monitored by a licencing system. Shells of likely relevance to Club members are:

Papustyla pulcherrima
Haliotis midas (export from South Africa only)
Strombus gigas
Lithophaga lithophaga (but see below for further restrictions on this shell)
ALL Tridacnidae

The shells specified below may be collected and carried across borders as part of 'personal or household effects' (see reference below). These must have been acquired legally (i.e. not from a marine reserve or against local laws) and may have been self collected or purchased. It is suggested that if you intend to collect and import any of these species then you should access these files and carry a copy with you when travelling.

Strombus gigas up to three specimens;
Tridacnidae up to three specimens, each of which may be one intact shell or two matching halves, not exceeding 3kg per person.

As far at the Club itself is concerned, the Committee agreed at its meeting on 17 January 2009 that there would be no restrictions on the display and trade in CITES Appendix II shells at our shows and meetings.

References
full text of CITES: www.cites.org/eng/disc/text.shtml
full list of species on Appendices I, II and III: www.cites.org/eng/app/appendices.shtml
text of resolution concerning personal and household effects: www.cites.org/eng/res/13/13-07R14.shtml

EUROPEAN PROTECTED SPECIES (EPS)

This legislation was enacted by the UK Parliament on 3 July 2007. It is now "an offence to have in one's possession or control, transport, sell or exchange any live or dead animal listed on Annex IV(a) of the EC Habitats Directive." It applies to any molluscs on the list which have been "taken from the wild" within Europe after 10 June 1994 (the date the UK joined the EU) a or later for those species added at subsequent time; captive bred specimens are excluded and are legal to possess. The legislation also does not apply to specimens obtained outside the EU countries.

It is now illegal to possess any of these shells without a licence, and it is not easy for individuals to obtain a licence for shells already in their possession! It is easier for accredited academic institutions and museums to obtain a licence. Licenses are only applicable in the individual countries where they are granted (and that would mean four licenses for the different countries comprising United Kingdom!)

There are currently 33 extant molluscs on the EPS Annex IV(a); other Annexes are concerned with habitats rather than individual species. Many of these are obscure land shells from Madeira; there are only four marine species included but also a few freshwater molluscs and one slug. The attached list shows all the named species. Those which are probably most relevant to Club members are:

Gibbula nivosa
Anisus vorticulus (added to the EPS in 2004, so legal if collected before then)
Lithophaga lithophaga
Pinna nobilis

WILDLIFE AND COUNTRYSIDE ACT

The Wildlife and Countryside Act (1981) is purely British legislation (in Northern Ireland this is the Wildlife Order 1985) and applies only to species found in Britain; schedule 5 prohibits animals (live or dead) from being taken, possessed, sold or offered for sale.

The shells on the list are mainly non-marine, and include only one marine shell. The dates given are when they were added to the relevant list and therefore the date after which they become 'illegal'.

Paludinella littorina (1992, but likely to be removed from this list at the next review of the Act)
Caecum armoricum (1992)
Myxas glutinosa (1981)
Quickella arenaria (1981)
Helix pomatia (2008)
Atrina fragilis (1998)
Margaritifera margaritifera (1998)
Thyasira gouldi (1992, but likely to be removed from this list at the next review of the Act)

The committee has decided that Club policy should be that none of the species on the EPS or Wildlife and Countryside Act lists may be offered for sale, either by dealers or by auction, at any BSCC function, nor displayed in any exhibit. This will apply regardless of when or where the shells were collected, as having different rules for species collected outside Europe or prior to legislation would make control almost impossible.

HABITATS AND SPECIES DIRECTIVE

This is European legislation which is mainly concerned with habitats. However, species on Annex 4 may not be killed or disturbed or their habitat destroyed. There are no restrictions on possession or sale of species on this list. The only shell not included above is *Margaritifera auricularia*, which will be permitted at BSCC events.

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The relevant legislation of these Acts/Directives is complex and is not for reading by ordinary mortals! The Joint Nature Conservation Committee (JNCC) provides links to many of the appropriate documents and gives summaries of some of the pertinent passages. There is also a comprehensive list of all the involved species (not only molluscs).

JNCC website: www.jncc.gov.uk/ The links are complex to work your way around, but much of what is relevant to this topic can be found by following: Home > Species > Species Status and Conservation Designations

EPS: text of regulations implemented in 2007: www.opsi.gov.uk/si/si2007/uksi_20071843_en_1
EPS: Annex IV guidance with full list of species:
www.defra.gov.uk/wildlife-countryside/pdf/protection/habitat-annex4species.pdf

Wildlife and Countryside Act: www.opsi.gov.uk/si/si1994/Uksi_19942716_en_1.htm
Habitats.and Species Directive:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML

List of all species on conservation lists (does not include EPS species):

- zipped file: www.jncc.gov.uk/Docs/Taxon_designations_20081029.zip
- unzipped file (15.7mb): www.jncc.gov.uk/Docs/Taxon_designations_20081029.xls

Our thanks to Martin Willing for help and advice in the preparation of this article.

EUROPEAN AND BRITISH PROTECTED SPECIES OF MOLLUSCS

these molluscs may not be offered for sale at BSCC events, either by dealers or by auction, nor displayed in any exhibit.

Molluscs shown in RED occur in the British Isles		European Protected Species Annex IV(a)	Wildlife & Countryside Act Schedule 5
GASTROPODS			
PATELLIDAE			
Patella ferruginea	marine	x	
ASSIMINEIDAE			
Paludinella littorina	FW		x
NERITIDAE			
Theodoxus prevostianus	FW	x	
Theodoxus transversalis	FW	x	
TROCHIDAE			
Gibbula nivosa	marine	x	
CAECIDAE			
Caecum armoricum	marine		x
LYMNAEIDAE			
Myxas glutinosa	FW		x
HYDROBIIDAE			
Paladilhia hungarica	land	x	
Sadleriana pannonica	land	x	
PLANORBIDAE			
Anisus vorticulus	FW	x	
PUPILLIDAE			
Leiostyla abbreviata	land	x	
Leiostyla cassida	land	x	
Leiostyla corneocostata	land	x	
Leiostyla gibba	land	x	
Leiostyla lamellosa	land	x	
CLAUSILIDAE			
Lampedusa imitatrix	land	x	
Lampedusa melitensis	land	x	
DISCIDAE			
Discus guerinianus	land	x	
SUCCINEIDAE			
Quickella arenaria	land		x

Molluscs shown in RED occur in the British Isles		European Protected Species Annex IV(a)	Wildlife & Countryside Act Schedule 5
HYGROMIDAE			
Hygromia kovacsi	land	x	
HELICIDAE			
Caseolus calculus	land	x	
Caseolus commixtus	land	x	
Caseolus sphaerula	land	x	
Chilostoma banaticum	land	x	
Discula leacockiana	land	x	
Discula tabellata	land	x	
Discula testudinalis	land	x	
Discula turricula	land	x	
Elona quimperiana	land	x	
Geomitra moniziana	land	x	
Helix pomatia	land		x
Idiomela subplicata	land	x	
ARIONIDAE			
Geomalacus maculosus	land	x	
TERGIPEDIDAE			
Tenellia adspersa	marine	x	
BIVALVES			
MYTILIDAE			
Lithophaga lithophaga	marine	x	
PINNIDAE			
Atrina fragilis	marine		x
Pinna nobilis	marine	x	
MARGARTIFERIDAE			
Margaritifera margaritifera	FW		x
UNIONIDAE			
Unio crassus	FW	x	
DREISSENIDAE			
Congeria kusceri	caves	x	
THYASIRIDAE			
Thyasira gouldi	marine		x