

Marine Recorder's Report 2015

Some of the highlights of recent years have occurred over the winter period, so tend to be split between the end of one year's report and the beginning of the next. The cause is winter storms in the Atlantic battering our western and southwestern coasts and, as detailed in last year's report and more recently by Jan Light (*Mollusc World* 40 p.22), creating a transatlantic flow of flotsam from the eastern seaboard of North America and, possibly, the Caribbean. While much of the flotsam is plastic, it is nevertheless often colonised by epifauna, particularly goose barnacles but also cemented bivalves, pelagic colonists and the occasional incidental passenger.

The nature of the flotsam often presents significant clues to its origin, particularly if it is labelled with the name of the fishery to which it belonged before drifting across the ocean. As Jan describes in her *Mollusc World* piece, and as is detailed in the book she was reviewing at the time and the related Facebook groups, the sheer variety of flotsam items is staggering. One of the more traceable items in 2015 was a section of a space rocket, the SpaceX Falcon-9, which unfortunately had exploded just after launch at Cape Canaveral in Florida on 28th June 2015. The large section of fuselage, some 10 metres in length, washed up on the Isles of Scilly in late November and so not only provided evidence of the speed of transatlantic flotsam transit but also of which species are first to colonise fresh material and, potentially, the route taken inferred by the variety of species present. Unfortunately all the biological evidence was removed with a pressure washer before any biologists were able to examine it (also meaning that instead of drying out on the beach, any potential invasive species were washed straight back into the sea).

The rafting species of the 2015 winter season started arriving in early November with finds made on flotsam washed up on the southwest and southern English shores. As usual Steve Trehwella in Dorset and David Fenwick in Cornwall were at the forefront, and the first finds were of the encrusting bivalve species which were being found the previous winter: *Chama* (probably 3 different species) and *Isognomon* (*I. bicolor* (C. B. Adams, 1845) and *I. radiatus* (Anton, 1838)). In some cases the identifications were referred to workers in the southeastern USA with more experience of what are their native species, although anybody who has worked with *Chama* in particular will know how difficult they can be to identify with confidence.

The primary encrustation of most long-distance flotsam is goose barnacles, of several species, often providing habitat for the pelagic specialist Columbus crab, *Planes minutus* (Linnaeus, 1758). As well as the bivalves mentioned above, occasional gastropods manage to raft across with them. A specimen of the Caribbean *Cerithium litteratum* (Born, 1778) was reported in the previous year's storms by Rosemary Hill of Co. Kerry, Ireland. Her specimen was in a bait jar, a frequent transatlantic "macro-litter" type, another of which provided no less than ten specimens when found by Tracey Williams in Watergate Bay, Cornwall on 23rd November 2015. As with the majority of the rafted finds, the ceriths were all dead, therefore slightly easing fears of an alien introduction by this vector, albeit that the frequency of rafting is being significantly increased by the volume of man-made flotsam and by changing climate patterns.

In December 2015, however, a live specimen of the Muricid *Stramonita haemastoma* (Linnaeus, 1767) was found by Andy Dinsdale amongst goose barnacles on flotsam washed up at Dungeness in Kent. The find was initially identified by Steve Trehwella and is thought to be a first for the UK although it was not the last as Steve himself found four specimens, again live, very soon after amongst goose barnacles on a buoy washed up in Dorset. These specimens were accompanied by egg capsules on the substrate, although they seemed to have been long since dried up. The species is quite widespread but exhibits variation and the specimens found seemed again to have originated from the SE USA. It is thought unlikely that they could survive and breed on the British coast but with further subsequent finds from Dorset, Cornwall and Ireland it seems they are making it here in

significant numbers such that if there were any possibility of them establishing, even across a limited range, then there is every chance of it happening.

Further Caribbean rafting species confirmed in the flurry of activity associated with the winter storms at the end of 2015 are the bivalves *Pinctada imbricata* Röding, 1798 and *Dendostrea frons* (Linnaeus, 1758), first encountered by David Fenwick from flotsam stranded on Cornish sites, the latter also on a buoy found by Rosemary Hill washed up at Ballinskelligs, Co. Kerry. Rosemary's find was also harbouring another species thought to be a first record for the eastern Atlantic coast: a small specimen of what Americans often call the "turkey wing", *Arca zebra* (Swainson, 1833).

Facebook continues to play a very important role in disseminating such interesting finds and providing a forum for discussion and the exchange of information, particularly via several dedicated specialist groups. The flow of reports, comments and images can be almost overwhelming at times but it is one of those facilities which quickly makes one wonder how one coped without it. The Society certainly benefits in terms of the networking of data and records and has also gained a handful of new members in the process.

Opisthobranch reports and records have certainly been facilitated by Facebook and the excellent "NE Atlantic Nudibranchs" group continues to flourish. It has been noted in previous reports that advances in diving and photographic technology have massively improved the recording of seaslugs but in 2015 the shore workers demonstrated it is still possible to make impressive finds, particularly in the right habitat. Again, David Fenwick was to the fore, conducting a fascinating study of the nudibranch fauna of Newlyn marina. David's technique was simply to wash and shake selected algae samples and to microscopically examine the resulting detritus. It proved effective in what is evidently a rich locality, with over 25 species records on one occasion from several hundred specimens, all collected in a three hour period which included, to quote David, "numerous coffee breaks". It sounds like the nudibranch equivalent of working shelly grit and produced notable records of, among many others: *Doto koennekeri* Lemche, 1976; *Facelina annulicornis* (Chamisso & Eysenhardt, 1821); *Hancockia uncinata* (Hesse, 1872), which David also recorded from nearby Albert Reef, thought to be the second and third records of the species for Cornwall; and *Janolus hyalinus* (Alder & Hancock, 1854).

David also found in the marina the sacoglossan *Placida dendritica* (Alder & Hancock, 1843), an infrequently recorded species but one which has presumably been continually present in that area since there are nearby Victorian records. In Newlyn harbour David recorded *Doto dunnei* Lemche, 1976, confirmed by the always helpful Bernard Picton (*Doto* species can be very difficult to separate) while across the bay at Battery Rocks he found the equally scarce *Doris ocelligera* (Bergh, 1881), although as a species this seems to have had a relatively good year in 2015. Yet another unusual record David picked up was the small and largely translucent nudibranch *Trapania pallida* Kress, 1968. This was from an intertidal pool at Marazion, which is interesting as *T. pallida* is very rarely recorded intertidally and yet the Marazion pools have something of a reputation for producing such records. Given that molluscs are only a part of David's intertidal recording efforts, it should come as no surprise that he was selected to receive the National Biodiversity Network's David Robertson adult award for marine and coastal wildlife recording in 2015.

Also in the southwest, Rob Durrant has been working assiduously to record the extensive fauna of his local patch of rocky shore in North Devon. Like David in Cornwall, Rob made some notable nudibranch finds during 2015 including *Geitodoris planata* (Alder & Hancock, 1846), *Doto millbayana* Lemche, 1976 and *Doto onusta* Hesse, 1872. The latter highlighted some ongoing controversy within the taxonomy of *Doto* species, particularly as Rob generally submits his findings via the online iRecord portal, which did not offer *D. onusta* as an option. Rob also found the much less confusable

Rostanga rubra (Risso, 1818) which although known to occur intertidally is rarely seen other than by divers. Coincidentally there were several diver records of the related and rather attractive species *Rostanga rosi* (Ortea, 1979), the distribution of which seems to have been creeping north into southern British waters since the turn of the millennium.

Jim Anderson, webmaster of www.nudibranch.org, an excellent website which well repays a visit, continued to make numerous dived observations which he kindly reports to the Society, although you will note from the website, if you visit it, that UK (mainly Scottish) nudibranchs are far from his only focus of interest. 2015 Scottish highlights for Jim included the not uncommon but very difficult to spot *Lomanotus marmoratus* (Alder & Hancock, 1845), which is one of those species where you tend to find the host hydroid and then look for the mollusc; yet another *Doto*, this time *D. sarsiae* Morrow, Thorpe & Picton, 1992; *Onchidoris* [now *Knoutsodonta*]*depressa* (Alder & Hancock, 1842); and most excitingly, from Loch Nevis, an unidentified *Knoutsodonta* which could very well be an as yet undescribed species. Jim's wonderful photographs of all these sightings are on his website.

The Society's very successful week-long field excursion in NW Wales has already been widely reported (*Mollusc World* 40 pp. 3-7) but mention is worth making, returning again to the intertidal nudibranch theme, of the finds made in the Menai Strait. Before the trip, Ian Smith had been enthusing about sites there which he knew from his long experience of the area to be potentially rich in nudibranchs so when the day came to visit that area Ian led a small group to one of these marks. The primary target was cobbles with a rich hydroid turf but these proved rather elusive, so instead samples were taken of a variety of algae and whatever hydroids and bryozoans could be found, for subsequent microscopic examination. Ian carried this out with his usual rigour and was rewarded with a tally of eleven nudibranch species, including *Doto koenneckeri* Lemche, 1976; *Aeolidiella alderi* (Cocks, 1852), a first for Ian and a notable N Wales record; and the always delightful *Thecacera pennigera* (Montagu, 1815), on the bryozoan *Bugula* with which it is associated. While mentioning Ian, attention should again be drawn to his superb species accounts available online on Flickr: www.flickr.com/photos/56388191@N08/collections.

The Welsh trip produced a good variety of new and interesting records and huge thanks go to Bas Payne for his enormous efforts in arranging and organising the event. Offshore grab samples continue to be processed but have yielded some nice finds, including the rather scarce bivalve *Saxicavella jeffreysi* Winckworth, 1930 and the Pyramidellid *Tragula fenestrata* (Jeffreys, 1848), rarely encountered but evidently not unusual in the northern part of Cardigan Bay. Llandwyn on Anglesey gave those present an opportunity to familiarise themselves with the introduced oyster *Ostrea chilensis* Philippi, 1844 (syn. *Tiostrea lutaria* (Hutton, 1873)) and provided many highlights on a very low tide, notably four species of *Ensis* all advertising their presence with their incredible *in situ* squirting prowess and including a significant record of the alien *E. directus* (Conrad, 1843), present in considerable numbers. *Ensis* specialist Paul Dansey continues to monitor the spread of this species up the NW coast, having found a dead shell of spurious provenance on the promenade near Southport Pier.

The Tellinid *Gastrana fragilis* (Linnaeus, 1758) is not often encountered but can be very common at some Welsh coastal sites, or at least articulated dead shell specimens can be, with the occasional live animal found as was the case during the Lleyn trip. In South Wales, the species was recorded in 2015 near Milford Haven by Paul Evans, who kindly and regularly provides the Society with records from his extensive strandline explorations around various parts of the UK coast. Rather more unusually, two valves of the species were found in SW Scotland, from Loch Ryan, north of Stranraer.

The latter records were made by Simon Taylor and David McKay, who undertook survey work in Galloway in an effort to provide data for a relatively under-recorded part of the coast. Ironically the

preparation for the survey included contact with Society member Jim Logan, now resident nearby, who provided extensive lists of records for many of the sites involved. As a result the area is now quite comprehensively and recently recorded, though no doubt there are always new discoveries to be made, such as the unexpected *Gastrana*. Loch Ryan provided some rich intertidal sites which are likely worthy of further investigation and, interestingly, was completely devoid of *Gibbula umbilicalis* (da Costa, 1778), although *Gibbula cineraria* (Linnaeus, 1758) was present and both were common elsewhere on the Galloway shore. Other interesting sites on the southern coast of the area are Mossyard Bay, with huge strandings of shells and impressive reefs of *Sabellaria* wormtubes, and Sandhead Bay, where stranded shells of *Philine quadripartita* Ascanius, 1772 (the species often, but erroneously, referred to as *P. aperta* (Linnaeus, 1767)) and *Scaphander lignarius* (Linnaeus, 1758) were common, with some moribund specimens of the latter.

David's offshore activities continue to produce a huge range of significant and interesting records in areas where little other data exist. The number and range of records is enormous and he continues to experiment with new techniques in an effort to recover more species which may otherwise be missed, alongside his tried and tested methods of attaching small, fine mesh nets alongside conventional fishing gear and dissecting the guts of haddock, as well as examining the main catch for any larger species or material like stones or sponge which may harbour molluscs. Just a few of the highlights of David's 2015 finds include *Colus sabini* (Gray, 1824), *Turrisipho moebii* (Dunker & Metzger, 1874), *Typhlomangelia nivalis* (Lovén, 1846), *Yoldiella propinqua* (Leche, 1878) and several records of *Dacrydium ockelmanni* Mattson & Warén, 1977, all from the northern North Sea. As usual there are some mysteries too, including a number of Eulimids from the Viking area of the North Sea which have caused considerable head-scratching but which give every impression of being *Polygireulima monterosatoi* (Monterosato, 1890), and some Turrids from off western Scotland which have been labelled a variety of names, the current favourites being *Philbertia pruinosa* Pallary, 1906 and *Raphitoma villaria* Pusateri & Giannuzzi-Savelli, 2008, although the jury is still very much out on all of them; a happy quandary to be in nonetheless.

Two other species David has recorded in 2015 are *Velutina plicatilis* (Müller, 1776) and the chiton *Hanleya nagelfar* (Lovén, 1846). The former was also photographed by the rather prolific diver George Brown, who posted a rather beautiful image he had taken of a living specimen at Lochaline in the Sound of Mull but was struggling to identify, which again drew upon the resources of online social networking to reach a conclusive diagnosis. David McKay's discovery of *H. nagelfar* was coincidental with specimens in the collection of the National Museum of Scotland being brought to light by Sankurie Pye, their Curator of Invertebrate Biology, who kindly raised them to my attention. The lot contains two specimens and demonstrates the sort of hidden gems which such collections can hold, as they have very precise provenance, being collected during scientific investigations by the Department of Agriculture and Fisheries for Scotland, at 320 metres, just east of the Faroes, in April 1923.

Some will be aware of Sankurie's involvement in brackish lagoon studies. The lagoon slug, *Tenellia adspersa* (Nordmann, 1845), is a tiny and relatively poorly understood nudibranch species inhabiting, as its common name suggests, brackish conditions. Records are few and, literally, far between, ranging from the Caspian Sea west across the Mediterranean to both sides of the Atlantic and even the northwest Pacific coast (it is thought to be introduced in North America). Presence of the species is determined by growth of its food hydroid species and there is some debate as to the conditions in which those species flourish. I am currently involved in a project following up old records of *T. adspersa* in Essex, to investigate further the population dynamics of the species. It was therefore very interesting to receive a rather unexpected record, via Sankurie, of two preserved specimens from Loch Bi, South Uist in the Outer Hebrides, collected in 2012 and recently verified by

Bernard Picton. Again, the habitat was a brackish lagoon, suggesting that where suitable habitat exists, *T. adspersa* is somewhere to be found.

Encouragingly, 2015 saw the National Trust embark upon a major recording initiative in its coastal bioblitzes, which were held at 25 of its properties on dates between April and October. Several Society members participated and also supplied mollusc records to the Society, with others finding their way into the dataset via iRecord. The events provided an opportunity to meet with specialists in other taxon groups, plus local generalists, the Trust's own staff and an interested public, and to promote the Society and its activities. Reports suggest the bioblitzes were well supported and successful, with considerable effort made by the Trust's employees to draw in as many people as possible. Rumour has it that the exercise may be repeated in 2017 and members are urged to offer their support if possible.

Finally, a few quirkier records from 2015. Michiel Vos posted some fantastic video footage online of swimming *Akera bullata* Müller, 1776, recorded in Mylor marina on the Fal estuary in September (www.facebook.com/mickey.luv.10/videos/10156089979135046/). On the cephalopod front, there were a few records during the year, most notably one which actually made media headlines in December when two lesser or curled octopus *Eledone cirrhosa* (Lamarck, 1798) - which have a single row of suckers on the arms as opposed to the two rows in the "common octopus" *Octopus vulgaris* Cuvier, 1797 - were found separately at two locations in Norfolk. Any stranded octopus in East Anglia is unusual and noteworthy, although nationally *E. cirrhosa* is far more common than the so-called common octopus. More cephalopod records of any kind would be welcomed. Increasingly frequent are the reports of shell specimens of exotic, often tropical, species found on British or Irish coasts, 2015's highlight being a very large and fine, pearlised specimen of the top shell *Tectus conus* (Gmelin, 1791), found on Bantham Beach in South Devon and reported by Maya Hatton. As to how it came to be there, one can only speculate.

Simon Taylor, March 2016