## Marine Recorder's Report 2017

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

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

Another 2017 publication described a further new nudibranch species for Ireland, this one with a name with distinct Irish connections: *Knoutsodonta pictoni* Farfaro & Trainito, 2017 \*\*\* named in honour of the prolific nudibranch scholar Bernard Picton, based in Northern Ireland, who delivered an excellent lecture to the Conchological Society recently. The paper also notes records of the new taxon from Western Scotland and compares it with the other 14 species described in the genus, concluding as is so often the case that further work is required which, in this particular instance, may very well result in the genus being found to be polyphyletic.

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

One of David's regular haunts is Newlyn Harbour. Many of us have scavenged on the decks of inshore fishing boats hoping to find something interesting amongst the debris and David did just that in September 2017 when he found a beautiful little gastropod on a specimen of the equally

attractive featherstar Antedon bifida (Pennant, 1777). Obviously an eulimid, the precise identity proved elusive until the internet again demonstrated its value and European workers were able to confirm the specimen as *Curveulima dautzenbergi* (Pallary, 1900), \*\*\* yet another new species for the British list and potentially another extending its range north to the southwest of Britain. As a 'deck find' the exact locality of the animal was not possible to establish but David spoke to the boat skipper who indicated he had been working crab pots off Pendeen. Also via David came a further record of the recent southwest colonist *Calma gobioophaga* Calado & Urgorri, 2002, found by Heather Buttivant near Looe in Cornwall.

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

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

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

We were fortunate to be joined in Orkney by the prolific Scottish marine recorder David McKay, for whom 2017 was another very productive year. Among his highlights were several *Simnia patula* (Pennant, 1777) from the North Sea just off Whitby (very few North Sea records exist for the species) along with a number of live *Comarmondia gracilis* (Montagu, 1803), plus some excellent specimens of *Xylophaga dorsalis* (Turton, 1819) and *Xylophaga praestans* E.A. Smith, 1903 \*\*\* from wood recovered by a fishing vessel in the northern North Sea. In a deepwater sample taken northwest of Lewis in the Outer Hebrides David found an amazing array of small nuculanids including the rarely recorded species *Yoldiella incala* Allen, Sanders & Hannah, 1995; *Yoldiella nana* (M. Sars, 1865); and *Yoldiella solidula* Warén, 1989. Other exceptional deepwater records include *Halicardia flexuosa* (Verrill & Smith, 1881) \*\*\* southwest of St. Kilda and another possible British first, *Skenea olgae* Segers, Swinnen & De Prins, 2009. Past material collected by David over the years continues to

provide interest with, for example, a record of the very rare bivalve *Parilimya loveni* (Jeffreys, 1882) from 2014. Grit samples collected by David and passed to others such as John Fisher also produce good lists and interesting records, such as recent *Alvania testae* (Aradas & Maggiore, 1844) [formerly *A. abyssicola* (Forbes, 1850)] from material off Scilly.

The value of gathering and processing shell grit samples, both intertidally and sublittorally where possible, has been further demonstrated by the material collected on the Society's 2016 trip to South Devon, which continues to produce good data. Working on some of the grab samples from Plymouth Sound, Adrian Brokenshire compiled some large species lists including a record of the infrequently seen *Dikoleps cutleriana* (Clark, 1849) and an unmatched pair of disarticulated valves of the small mytilid *Crenella arenaria* Monterosato, 1875 \*\*\*, primarily a Mediterranean species and not previously recorded from Britain. Of course, shell-only records in areas of high maritime traffic have to be treated with caution but often they can be the first signs of new colonisations, whatever the vector of introduction, so this species is one worth looking out for.

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

Returning to the Society's own field activities, in October several of us spent a week on the Gower peninsula in South Wales (thanks to organiser Rosemary Hill). While some promising sites, notably Whiteford Point and the platform south of the Worms Head causeway, were dominated by dense carpets of young *Mytilus edulis* L., 1758, others produced diverse lists. Investigating reports of dead shells of *Paludinella globularis* (Hanley in Thorpe, 1844) having been found in local shell grit (supported by further grit finds during the week, notably from Threecliff Bay where rich shell grit samples were found) the author and Jan Light explored sea caves at Rhossili for the species and eventually were rewarded with three live specimens. Also found, perhaps unsurprisingly given the habitat, were a number of live *Otina ovata* (Brown, 1827) which proved to be more common (or easier to find) with further finds at Rhossili and from caves at Caswell Bay later in the week.

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

Despite the south-westerlies there were no notable transatlantic rafting records in 2017, bucking the recent trend. The storms did seem to strand numerous native octopuses in several places around Britain and Ireland though, with more records than for many years, particularly of *Eledone cirrhosa* 

(Lamarck, 1798). There was also an unusual stranding of curled-up specimens of the large chiton *Acanthochitona fascicularis* (L., 1767), observed in October 2016 but reported in 2017, when Natasha Clark found "loads of weird creatures...like rubbery alien marbles" on the sand near Littlehampton.

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

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

## References

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