SOUTH-WEST MARINE ECOSYSTEMS IN 2015

Observations reported at the South-West Marine Ecosystems meeting in 2016 and other sources

Sightings: *Stephanopyxsis palmeriana*, a diatom which has been absent from the western English Channel for more than a decade, reappeared in net samples at the end of March and persisted for the rest of the year. Image: Claire Widdicombe, PML

Unusually high abundances: Barrel jellyfish *Rhizostoma octopus* (and other jellyfish species). Image: Keith Hiscock

Fisheries: Anchovy (*Engraulis encrasicolus*) were present in unusually high numbers late in the year. Image: Doug Herdson

Range extensions: Anemone prawn *Periclymenes sagittifer* at Babbacombe (first recorded in Britain at Swanage in 2007). Image: Keith Hiscock

Edited by Keith Hiscock and Bob Earll with the lead section editors:

Tim Smyth, Angus Atkinson, Keith Hiscock, Doug Herdson, Sue Sayer, Tom Horton, Sarah Clark

and the Seaquest *ad hoc* sightings report appended

SOUTH-WEST MARINE ECOSYSTEMS IN 2015

A collation of observations reported at the South-West Marine Ecosystems meeting on 8th April 2016 and supplementary material.

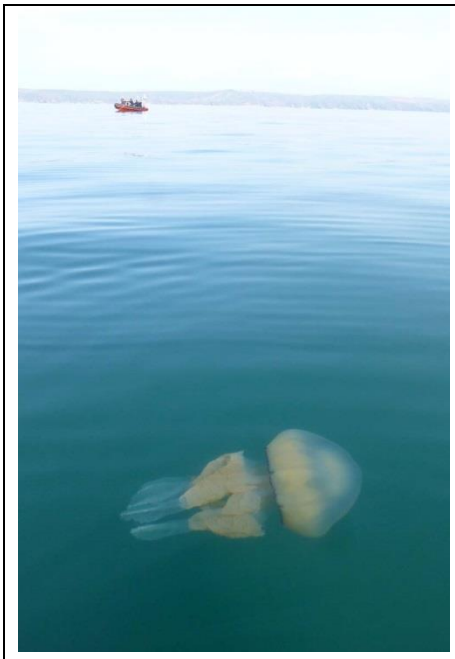
INTRODUCTION

Every year brings new events or variations on the 'usual'. Recording those events will help us better identify patterns and linkages as well as the effects of, for instance, severe weather, climate change and the arrival of non-native species. Making and recording observations contributes to the fund of natural history knowledge that informs science, conservation and that enriches our lives.

We would like to thank the editors of each section and to the contributors of observations. Do keep your records for 2016, and if you can add numbers to your estimates of 'good' or 'bad' that really helps to provide a measure of what is being reported, ready to submit your sightings etc. when the next South-West Marine Ecosystems meeting is held on 21st April 2017.

Keith Hiscock
Bob Earll

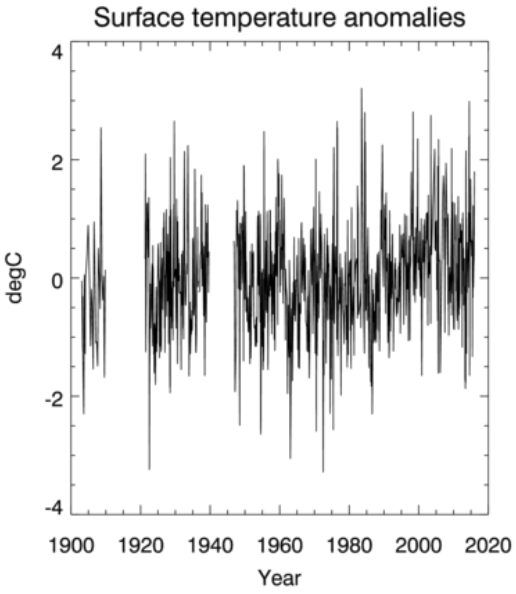
THE YEAR AT A GLANCE: HIGHLIGHTS

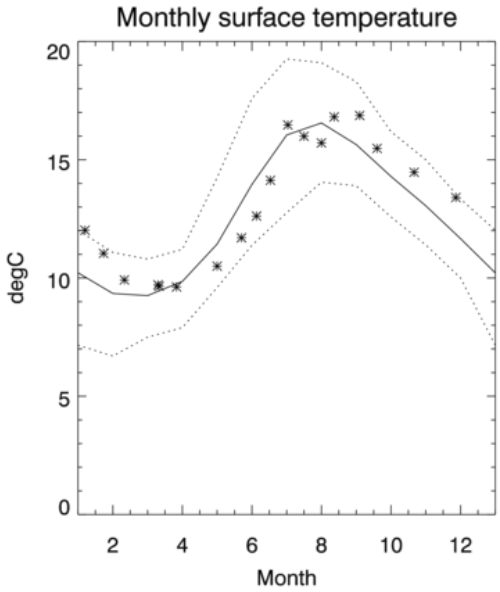
		
It was large numbers of barrel jellyfish present (again) in early 2015 that excited the public. Here in Whitsand Bay on 15th April. Image: Keith Hiscock	Moon jellyfish *Aurelia* aurita) at Westward Ho! on 12th July. Image: James Wood	Later in the year, the less benign jellies, *Pelagia noctiluca* (mauve stingers) turned-up in large numbers. Here, at Porthcothan on 28 November. Image: Keith Hiscock.

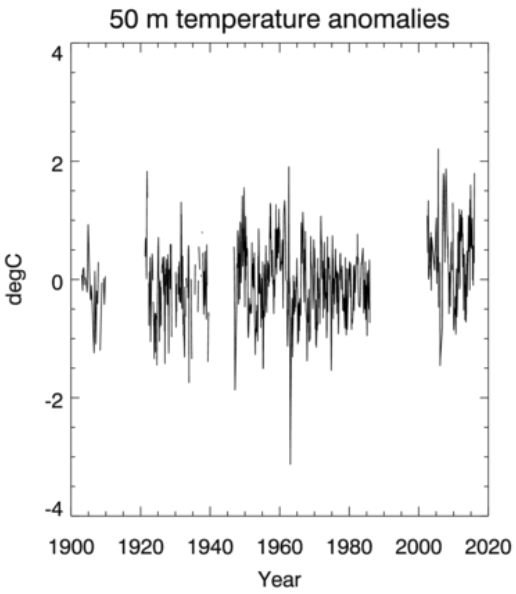
Using ‘what made the press?’ as a measure of ‘highlights’, 2015 was the ‘Year of the jellies’ with very large numbers of barrel jellyfish (*Rhizostoma octopus*) frightening the public and challenging marine biologists to answer the “why?” question.

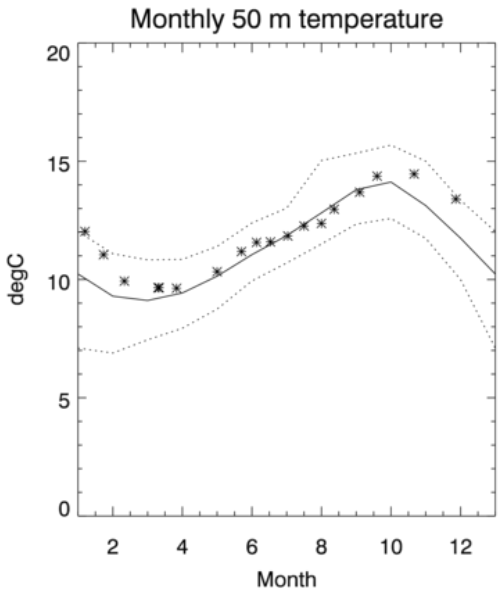
WEATHER AND COASTAL GEOMORPHOLOGY

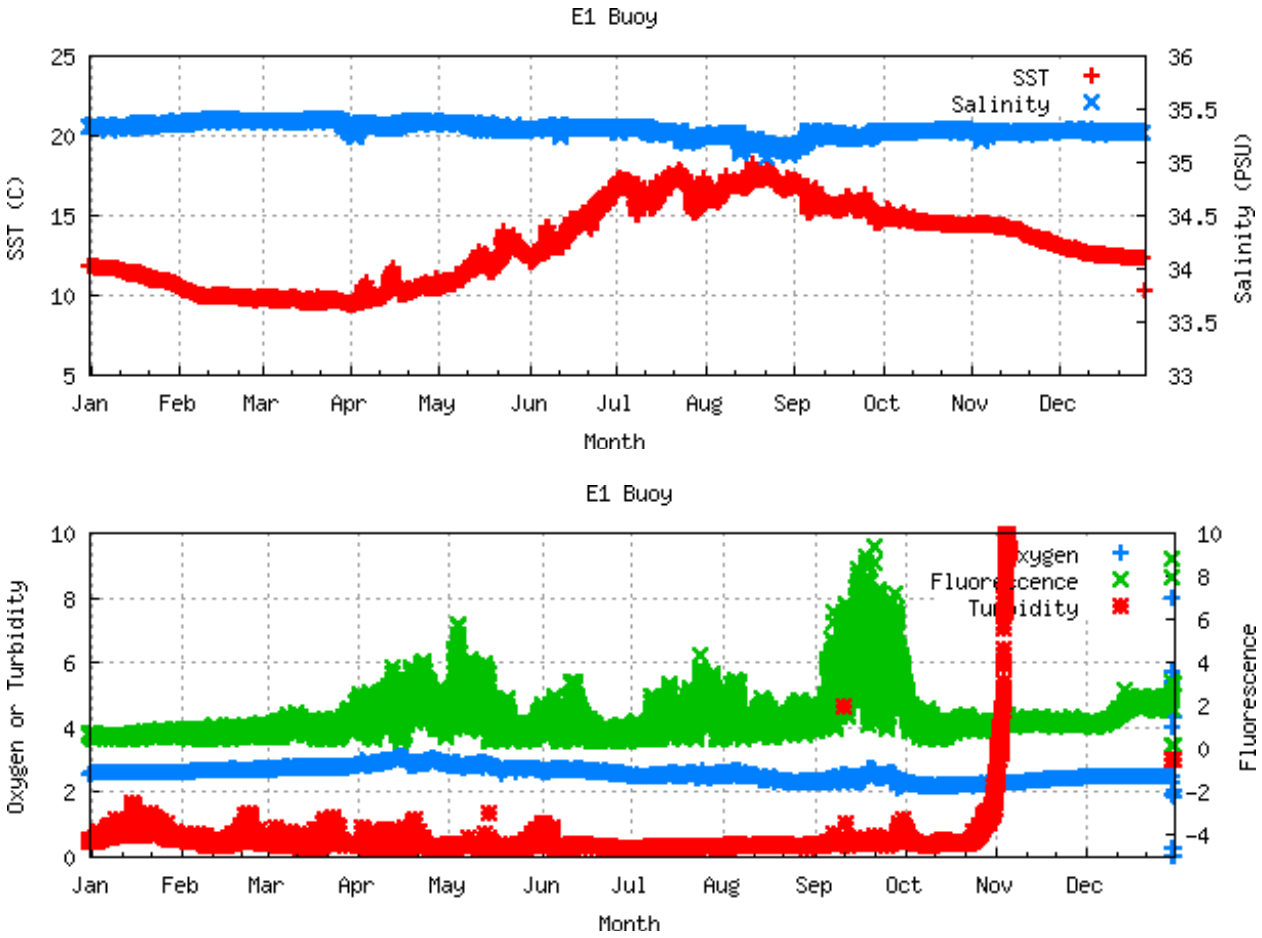
Edited by: **Tim Smyth**











[The turbidity records after October reflect biofouling and should be ignored.]

Tim Smyth (PML/Western Channel Observatory) reports: “Basically, in terms of temperature – globally 2015 was the warmest on record. For the most part, however, over the UK it was particularly average until December 2015 which was 4 – 5 degC above the 1981 – 2010 average.”

From the E1 [monitoring station south of the Eddystone] temperature series, it was either end of the year in 2015 that we saw the warmth. Winter 2014/15 was mild, as was autumn 2015. However, spring and summer were below average and the disappointing atmospheric temperatures failed to quickly warm the water column. There does seem to be a tendency towards lower salinities also at E1, which could imply we are seeing less oceanic water than of late.

Comparing diver-taken (Keith Hiscock) temperatures on the seabed at comparable locations in the vicinity of Plymouth, 2015 had a mild start to the year compared to 2013 with lowest temperatures (9.0 degC) in early March (in 2013, temperatures had continued to drop during March and on 30th March were 7.6degC offshore of Plymouth Sound and on 4th April were 7.4 degC in Plymouth Sound at Firestone Bay). Compared to 2014 (first dives in early March)temperatures were comparable in March but were often warmer in 2014 by 1 to 2 deg C during summer (for instance, 16.7degC in Whitsand Bay on 30th June) with temperatures continuing to rise into early October (maximum recorded was 17.5 degC in Bigbury Bay on 4th October 2014). Highest temperatures on the open coast in 2015 were recorded in late September (Wembury Bay on 20th September, 16.3 degC) and were similar to 2013. In summary, 2015 had a mild start to the year and then seawater temperatures were about average during the rest of the year.

Erosion of Start Bay shingle beaches (Torcoss, Hallsands, Beesands). Huge loss of shingle from these beaches with erosion of land behind - fishermen's slipways now high and dry. Nigel Mortimer

Increased frequency of deluge events. Complacency of public to soil run-off -> turbidity, freshwater dilution of marine SSSI -> change in local ecology? Very extensive despite new SWW ?? - stripping plant, green algal mud flat mats, no dinoflagellate bloom! FW kills off crabs in store boxes. Nigel Mortimer

PLANKTON

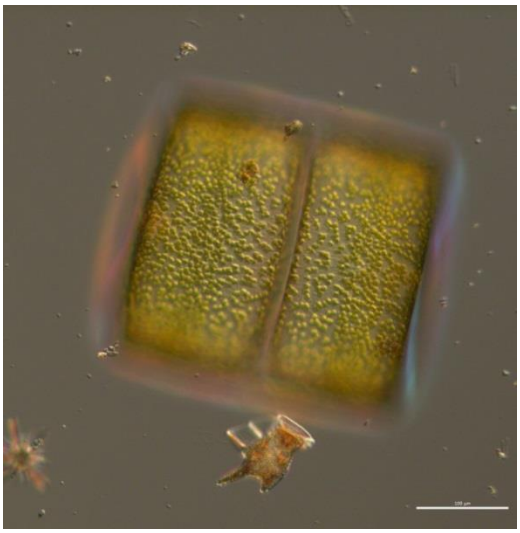
Compiled/Edited by: **Angus Atkinson, Claire Widdicombe, Andrea McEvoy, Paul Rooks, Keith Hiscock**

Introduction

Observations of plankton (free floating aquatic organisms from bacteria to jellyfish) are mostly from scientific sampling programmes at specific locations but include valuable and widespread observations by snorkelers and divers of jellyfish and of the 'signs' of some microscopic plankton. The organised sampling described here is from the Western Channel Observatory (WCO) programme (www.westernchannelobservatory.org.uk/) which has a 100-year history [information on long-term observations in the western Channel can be found in Southward *et al.* (2005). A more recent summary of changes over the past 25 years at WCO sampling station L4, 13 km south of Plymouth, is given in Atkinson *et al.* (2015)].

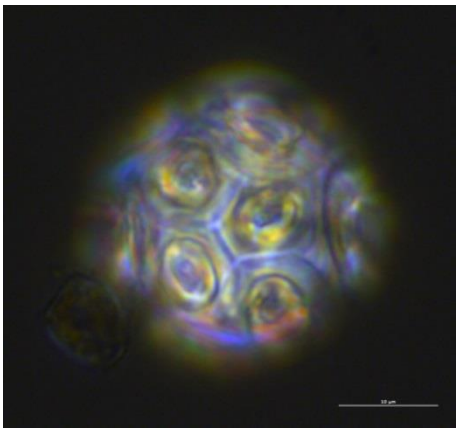
Phytoplankton The on-going phytoplankton and microzooplankton sampling at the Western Channel Observatory's long-term time-series stations L4 (ca. weekly) and E1 (ca. bi-monthly) showed a succession of 'blooms' during 2015. Winter weather was relatively typical and was dominated by an Atlantic flow which brought a series of low pressure systems and associated fronts to the English Channel. Consequently the filamentous cyanobacteria *Trichodesmium c.f. tenue* was recorded in net samples spanning January to March. Turbulent conditions entrained benthic foraminifera and also favoured large diatoms such as *Coscinodiscus wailseii* in the water column. High numbers of *C. wailsaii* caused a mucous 'sludge' in net samples and likely caused a problem for filter-feeding zooplankton and fish. *Stephanopyxsis palmeriana*, a diatom which has been absent from the western English Channel for more than a decade, reappeared in net samples at the end of March and persisted for the rest of the year.

Stephanopyxsis palmeriana (Claire Widdicombe, PML)

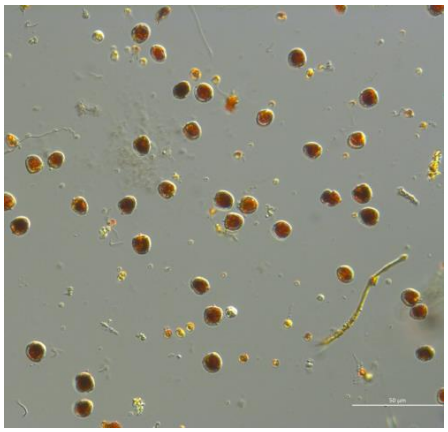


Coscinodiscus wailsaii and *Dinophysis tripos* (Claire Widdicombe, PML)

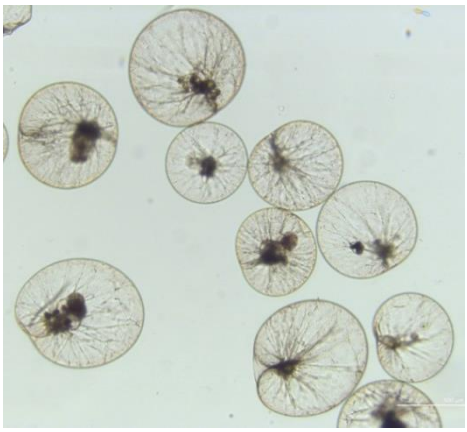
An abundance of colony-forming *Phaeocystis globosa* and *P. pouchetii* as well as a diverse mix of diatoms heralded the onset of the spring bloom in late March/early April. Coccolithophores (*Emiliania huxleyi* and *Coccolithus pelagicus*) were also abundant (100,000 cells per litre). Diatoms dominated the phytoplankton community until June when summer stratification and warming temperatures favoured dinoflagellates, particularly those that are potentially HAB species including *Karenia mikimotoi* (up to 45,000 cells per litre), *Dinophysis tripos* (up to 250 cells per litre) and *Karlodinium cf veneficum* (up to 30,000 cells per litre). By September the small HAB dinoflagellate *Prorocentrum cordatum* was blooming in the English Channel (>5,000,000 cells per litre) with high numbers (>1,000,000 cells per litre) also recorded in St. Austell Bay. Satellite images confirmed the *P. cordatum* bloom was intense and widespread.



Coccolithus pelagicus (Claire Widdicombe, PML)



Prorocentrum cordatum (Claire Widdicombe, PML)



Noctiluca scintilans (Claire Widdicombe, PML)

Relatively quiet weather in September and October favoured dinoflagellates, including the large heterotrophic species *Noctiluca scintillans* and a second bloom of coccolithophores (300,000 cells per litre). Unsettled, turbulent weather characterised November with several consecutive storms affecting the English Channel for the remainder of the year. Consequently the plankton community reverted to low concentrations with species typical of turbulent, winter conditions.

Zooplankton, especially 'jellies'

Barrel jellyfish made the headlines early in the year and continued to accumulate in sheltered bays and wash-up on beaches through the summer. Doug Herdson reported that some trawlers were said to be catching two tonnes or more per haul (which continued until at least to the end of June 2015). Doug also recorded the very large numbers of moon jellyfish (*Aurelia aurita*) washed up on North Devon beaches in early July, specifically 9th July (Keith Hiscock recorded large numbers washed up at Lundy on 25th July) and numbers of by-the wind sailors and hundreds of mauve stingers in Portheras Cove, West Cornwall on 15th November. Richard Lord (Channel Isles) reported receiving on 6th July a call from Clive Brown from The Pool in St Peter Port harbour saying that there were about 20 small jellyfish per square metre. These jellyfish were most likely *Pelagia noctiluca*, which had been washing up on Guernsey west coast and north coast beaches in the last couple of weeks. Mauve stingers (*Pelagia noctiluca*) were washed up in large numbers on North Cornwall beaches in late November including submitted observations from Constantine Bay on 19th/20th November (Annabelle Lowe), St Agnes in the Isles of Scilly on 26th November (Rebecca Allen) and Porthcothan on 28th November (Keith Hiscock). There were a very few sightings of the hydrozoan *Velella velella* (by-the-wind sailors) with Teresa Naylor reporting many hundreds at Wembury Bay from 3 December. There were compass jellyfish (*Chrysaura isocella*) mixed-in with other jellyfish and Natasha Barker-Bradshaw reported a high density of various size Jellyfish (probably compass) in the water at Gorran Haven making swimming unviable for most people.

For all of May until at least mid-June, the siphonophores *Muggiaea* and *Nanomia* were present indicating more oceanic water. There were quite large numbers of the ctenophore *Pleurobranchia* and *Beroë*. In the same period, there have been quite large numbers of the hydromedusa *Leuckartiara*, which has an obvious orange stomach. Lots of the ctenophore *Boliniopsis* in the harbour beside the Waterfront restaurant at West Hoe in Plyymouth Sound in early June and, in mid-June, lots of the large hydromedusa *Aequorea* in Mayflower Marine (Plymouth Sound). (From David Conway.)

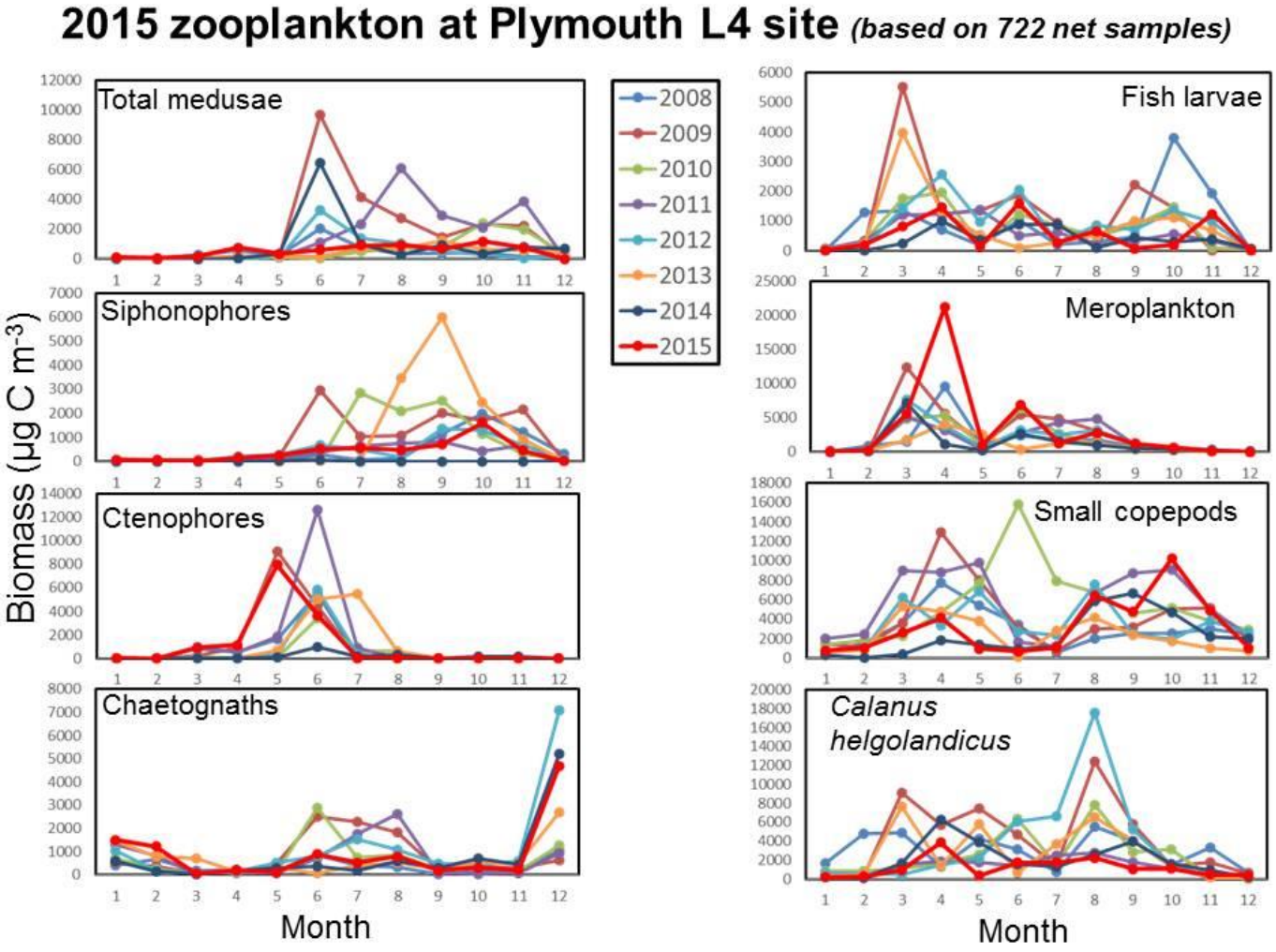
On 27/05/15 on the wreck of the Maine off Bolt Tail, KH notes in dive log: "Some areas swarming with jellies – mainly Beroë cucumis, some *Bolinopsis* but with hydromedusae, *Pleurobranchia pileus*, *Chrysaura*, one *Agalma* (on stops)". On 30/05/15 at the mouth of the Erme: "Frequent *Beroë* and the water generally had thick small brown gelatinous globules"

'Jellies' in the water column on the wreck of the Maine off Bolt Tail on 27th May. Image: Keith Hiscock

On 23/05/15 at Hand Deeps, KH notes: "On stops many small terebellid larvae (per Richard Kirby) in the water – couple of mm long with a cluster of appendages (tentacles) forward and two aft, wriggling."

Plymouth Marine Laboratory's weekly sampling of the L4 site was completed on 44 occasions during 2015. This ongoing zooplankton monitoring is done using a replicate pair of 57 cm diameter ring nets hauled from 50 m (near maximum water depth) up to the surface. The monthly average abundances of the main taxa is shown below, in relation to the previous 7 years. The overall picture is that 2015 was not an anomalous year at L4, despite unusually high numbers of barnacle larvae in April 2015. Ctenophores (*Pleurobrachia s*pp.) were abundant in May and June, but not exceptionally

so, as compared to the 2009 and 2011. During the sampling we noticed that some of the large copepod species, for instance *Calanus helgolandicus*, were relatively infrequent compared to most previous recent years – again with the exception of 2011. The overall picture is that the plankton at L4 are highly variable – there is no such thing as a "typical year". Taken in this context, 2015 was not exceptional.



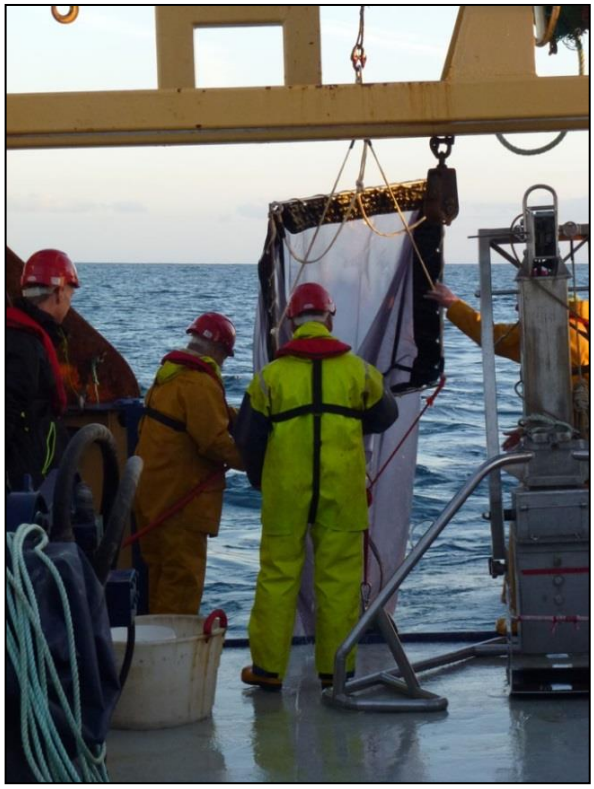
Average monthly biomass of the major zooplankton taxa at the Plymouth L4 site during 2015 (bold red) in relation to the previous 7 years.

While 2015 lies within the normal range of variability at L4, several interesting observations merit mention. For example on 13/04/2015 a moderate number of terebellid polychaete larvae were found at L4, with very high numbers on 11/05/2015 and 20/05/2015. Their presence was recorded through to June where numbers started to diminish. *Beroë* sp. were recorded at L4 in June.

Beroë sp eating *Pleurobrachia* sp.: photo: PML

Entoprocta larvae were found at the end of December. They have been found at L4 before but have only recently been identified.

Pelagia noctiluca was recorded from the surface waters at L4 on 24/08/2015. More individuals were also found on 7/12/2015 along with some large hyperiid amphipods (often associated with the jellies).



The standard 57 cm nets used for the sampling described above are only suitable for catching the smaller zooplankton. Therefore throughout 2015 we supplemented our L4 sampling with six visits to include more intensive sampling in both daytime and night-time, with a 1 m^2 net designed to catch jellies and other larger species (see photo taken aboard *Plymouth Quest* in Feb 2015).

Despite this large net being used both day and night, across multiple visits, and it sampling a very large volume of water (>60,000m^3 in total) we caught only a few larger jellies, the largest being a compass jellyfish with a bell diameter of approximately 15 cm. Barrel jellyfish were observed in the water from the *Plymouth Quest*, but only inshore of the L4 site. For example during the June sampling they were observed off the end of the breakwater at a maximum density of about 0.5-1 individual per 1000 m^2 of sea area. Thus our failure to observe high numbers of jellyfish at L4 does not conflict with other jelly reports from 2015 listed above. Most of the reports of jellies are made inshore or on beaches, where the jellies may either be naturally more abundant or physically concentrated by waves and currents, as for example on the strand line of a beach. Photo: PML.

References cited

Atkinson, A., et al. Questioning the role of phenology shifts and trophic mismatching in a planktonic food web. Prog. Oceanogr. (2015), http://dx.doi.org/10.1016/j.pocean.2015.04.023

Southward, A. J., Langmead, O., Hardman-Mountford, N. J. *et al.* (2005) 'Long-term oceanographic and ecological research in the western English Channel', *Advances in Marine Biology*, vol 47, pp. 1-105.

BENTHOS

Edited by: **Keith Hiscock**

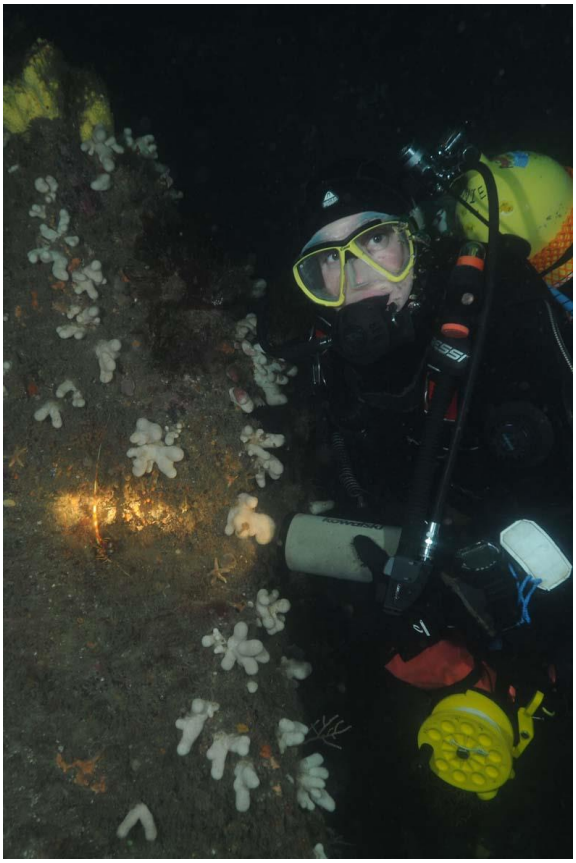
Introduction

The CoCoast ('Capturing our Coast') project was launched. CoCoast aims to find out more about the species that live in our seas and how we can protect them. The data collected by CoCoast will:

- Provide detailed distribution maps of marine species
- Allow us to explore how climate change and other human impact is affecting our seas
- Allow us to investigate if conservation policies are effective
- Allow us to study how species interact, including marine invasive species
- Allow us to explore local issues on the coast

Visit: www.capturingourcoast.co.uk

Observations



Crawfish/spiny lobster (*Palinurus elephas*) recruit at Hilsea Point Rock on 22 August. Image: Keith Hiscock

A moderate sized crawfish caught in a lobster pot at Lundy. Image: Geoff Huelin.

Although large recruitments were reported for 2014, the number of spiny lobsters *Palinurus elephas* being seen by divers rose again in 2015 with as many as six being seen on a dive. The individuals were mainly small and represented a significant recruitment probably in 2013-14. Research on crawfish increases as recruitment becomes more noticeable. Isles of Scilly IFCA and Devon & Severn IFCA start studies including tagging.

Turbicellepora magnicostata (photographed in the Isles of Scilly) now recorded from Penzance. Image: Keith Hiscock

Anemone shrimps (*Periclymenes sagittifer*) recorded at Babbacombe by Terry Griffiths and Dan Bolt. Image: Keith Hiscock

Range extensions (or at least new recorded locations) of *Turbicellepora magnicostata* (previous known only from the IoS in Britain) at Albert Pier Reef, Penzance (David Fenwick). Anemone shrimps (*Periclymenes sagittifer*) recorded (for the first time away from Swanage?) at Babbacombe by Terry Griffiths and Dan Bolt.

There was a diving survey at Scoble Point that was undertaken at a similar time of year to the survey in 1985. Keith Hiscock reports: the biota was much as in 1985 except that there was no overall cover by tubicolous amphipods; more *Phallusia mammilata*; more solitary seasquirts and scallops at least on the level seabed that had previously been dredged for scallops. *Laminaria ochroleuca* [a warm water kelp] was now present (not recorded in 1985).

David Fenwick reports notable occurrences:

- *Aplysia depilans*. 01.15, three large specimens spawning over long period in pool at Great Hogus, Marazion.
- *Astrotorhynchus bifidus* (flatworm). 01-04/15 at Perranporth on *Ascophyllum nodosum* driftweed from NW Atlantic.
- *Fecampia erythrocephala* in *Palaemon serratus* and *Palaemon elegans* hosts first UK records of this. 04-11/15 Newlyn Marina and Penzance Harbour. (Previously observed in France). DF to produce a paper with Tim Littlewood at the NHM on this.
- Tens of thousands of nudibranchs of various species on hydroid covered Wakame at Newlyn Marina 08-09/15

Of more general interest from David Fenwick: Finished a 12 month study of pontoon fouling at Newlyn Marina in 2015, 320 species identified, 4% NNS, but at least 4% were undescribed species or rare British ones, thus suggesting marinas in some areas are probably more important for local marine life than they are collectors for NNS.

Non-native species

Chris Wood (Marine Biological Association) reports that the ascidian *Corella eumyota* seemed to be less abundant in marinas and in the intertidal than in recent years, whereas the seaweeds *Undaria pinnatifida* and *Grateloupia turuturu* were increasing in abundance. The bryozoan *Schizoporella japonica,* previously thought to have first arrived in the SW in Plymouth 2012, has now been discovered in preserved specimens from Plymouth collected in 2009, making it the earliest UK record. David Fenwick had supplied the following information for 2015: *Vieitezia luzmurubeae* in Falmouth, *Boccardia proboscidea* at Constantine and *Perophora japonica* having spread to Fistral. *Perophora japonica* on 29.10.15 Pontoon Helford Yacht Club.

FISH AND REPTILES

Edited by **Doug Herdson**

There were some 'highlights' (unusually high abundances) and some 'low lights' (much lower abundances than usual) of species.

The Common Fisheries Policy is in the process of its most significant overhaul for a generation, what will this mean for marine life in the SW and beyond?

FISH

Edited by **Doug Herdson**

Overview

2015 was notably for its lack of basking sharks, sunfish and triggerfish, but a number of warmer water species continued to be seen and are apparently establishing themselves in the south west. The outstanding features were the world's largest seahorse and a large shoal of bluefin tuna.

Elasmobranchs

As in 2014 there were very few sightings of basking sharks (*Cetorhinus maximus*).

There were large numbers of blue sharks (*Prionace glauca*) off the coast of Cornwall and Plymouth throughout August and September. Off of Penzance, 312 sharks were caught and released in four days by four anglers. These included a number of relatively large sharks of up to 90 kg.

In August a TV company towed a dead humpback whale from Scotland to a position in the Celtic Deeps, where it was scavenged by around 150 blue sharks.

Small numbers of porbeagles (*Lamna nasus*) were also caught and released among the blue sharks.

Tope (*Galeorhinus galeus*) were relatively common in the later part of the year being caught in Mount's Bay and off Plymouth.

Of the smaller sharks an exceptionally big bull huss (*Scyliorhinus stellaris)* of over 9.5kg was caught in August in Bigbury Bay, and one of a metre in length was seen in the shallows of Hannafore Beach, Looe, where many egg-cases were found. A study of the egg-laying and development is on-going in the shallows at Wembury. Otherwise, a number of smoothhounds (*Mustelus asterias*) and lesser spotted dogfish (*Scyliorhinus canicula*) were washed up on the coast, possibly discarded from commercial or recreational fishing.

[Dan Jarvis; Annabelle Lowe; Charles Hood; Keith Hiscock; Liam Faisey; Douglas Herdson; Devon Biological Records Centre; Jenny Wytcherley; Sophie Banham; Gill Bridges; John Hepburn.]

Pelagic species

The numbers of small pelagic fishes were up on the previous two years. CEFAS's Peltic survey (CEND22_15 Cruise report) found that sprat (*Sprattus sprattus*) dominated the inshore waters of England, both in the English Channel and in the Bristol Channel. However sprat in the Bristol Channel consisted nearly entirely of small specimens, whereas those from the Lyme Bay area were more mature. Some very high densities of sprat were encountered in Lyme Bay and for the first time sprat were found in deeper waters around the Isles of Scilly, and large offshore aggregations mixed with sardine (*Sardina pilchardus*) in the Bristol Channel. Horse mackerel were commonest around western Cornwall.

An anchovy (*Engraulis encrasicolus*) was collected south of Plymouth in February, and in early October anchovies were in high numbers off Portland and in Lyme Bay, with some in the Bristol Channel. By the second half of November shoals of anchovy were to be found off Plymouth, especially around 'the Rutts'; these included some quite large ones of over 20 cm. Some were 'clean' shoals of anchovy, others mixed with small sardine/pilchards. Caught with these were some whiting (*Merlangius merlangus*) and quite a few Garfish (*Belone belone*) of up to 90 cm, evidently predating the anchovies.

It was presumably similar predation that caused many thousands of small fish, mainly sprats, to end up along the strandline from Branscombe to Sidmouth at the end of August.

In August an Atlantic chub mackerel (*Scomber colias*) was caught south of Rame Head and at the beginning of September a record equalling one of 765g was taken by an angler off Penzance.

The numbers of the small tuna, the bonito, (*Sarda sarda*) were lower than in 2014, but from August to October several were caught from Padstow to Mevagissey. Furthermore this year they were adult fish (in 2014 they were almost all juveniles), and several were caught elsewhere along the south coast and up to Norfolk and North Yorkshire in the North Sea.

Numbers of bluefin tuna (*Thunnus thynnus*) have been increasing around the British coast for a number of years, but the shoal of around 500 in Mount's Bay in mid-August was exceptional. The shoal included some large fish (1.7 to 2 m), and these fish continued to be seen in the area at least until October.

2015 continued the number of 'poor' years for sunfish (*Mola mola*) with only four being reported from Weymouth to Falmouth in June, July and September.

[Jeroen Van Der Kooij, Douglas Herdson, Hannah & Duncan Jones, Sophie Banham; Kate Williams; AK Wildlife Cruises; Aisling Smith; Liam Faisey]

Demersal species

A wide variety of demersal fish were recorded in the south west during 2014, reflecting the richness of the local fish fauna and the increasing occurrence of more southerly species.

With increasing pressure on their riverine breeding areas it was good that two marine lampreys (*Petromyzon marinus*) were found, in Lyme Bay and south of Plymouth.

More northern species were represented by Yarrell's blenny (*Chirolophius ascanii*) at Hand's Deep and three Norway pout (*Trisopterus esmarkii*) caught at ICES station L4 in early November.

A red scorpionfish (*Scorpaena scrofa*) caught in Torbay in August. Image: Andy Giles

A comber (*Serranus cabrilla*), caught by a trawler south of Start Point in November. About the 50th record for British and Irish waters. Image: Doug Herdson

Of the more southerly species a red scorpionfish (*Scorpaena scrofa*) was caught in Torbay in August; an amberjack (*Seriola* cf. *dumerili*) in west Cornwall in September, and a comber (*Serranus cabrilla*) fell foul of a beam trawler, south of Start Point in November. (This is about 50th for British and Irish waters).

Catches of immature Couch's bream (*Pagrus pagrus*) have been frequent in the estuary of the River Fal for some years, and now these fish are becoming increasingly more common in the estuary of the Fowey. Large numbers of immature Couch's bream were being caught by anglers in Fowey Estuary in September and October.

Similarly, some small warmer water fish of the reefs are becoming more widespread in the area. Black-faced blennies (*Tripterygion delaisi*) were found from Dorset to the Lizard and have expanded their range within Plymouth Sound. The red blenny (*Parablennius ruber*) was seen at Hand's Deep and in the Isles of Scilly. The variable blenny (*Parablennius pilicornis*), which to date in Britain has only been recorded from the Plymouth area and Torbay, is becoming more established in Plymouth Sound and was seen to have eggs.

The spiny seahorse (*Hippocampus guttulatus*) is regularly brought up on creels and other fishing gear in Poole Harbour, and returned alive by the fishermen. Several have been of unexpectedly large size, and in June one of 34cm length was found. This makes it the largest seahorse of any species ever recorded anywhere in the world. Two other spiny seahorses were seen elsewhere in Dorset, but for the second year running none of either species were found at their previous site in Studland Bay.

As in 2014 there were very few records of triggerfish (*Balistes capriscus*). 'Quite a few' were found dead on beaches around Newquay in January. None were reported by divers at their regular sites on the reefs and wrecks of the Dorset coast in August. However, out of our area a small shoal of six was seen in St Bride's Bay, Pembrokeshire, in September and October.

[Chris Wood, Sophie Banham, Douglas Herdson; Andy Giles; James Bate; Nick Eggar; Ben Conway; Keith Hiscock; Paul Naylor; Seahorse Trust; Tracey Williams; Kate Lock; Blaise Bullimore]

Pelagic species

Clusters of squid eggs stranded on beaches at Kimmeridge & elsewhere in Dorset. Some hatched in marine centre but too many found so most left on beach. I do not remember seeing so many before and this tied in with quite a few reports from divers of squid being seen. Julie Hatcher

TURTLES

In a year when turtle records generally in Britain and Ireland were down (46 from 52 in 2014), the reports from south west England and the Channel Islands were up significantly (19 compared with 13 in 2014).

The occurrences fall into a pattern of three periods.

January and February saw the strandings of two dead small hard-shelled turtles; a Kemp's ridley (*Lepidochelys kempii*) in Jersey and a cold-stunned loggerhead (*Caretta caretta*) in North Devon.

From June to October ten large turtles were seen from Dorset and the Channel Islands to the Isles of Scilly were seen alive and swimming, apparently in good health. These were seven leatherback turtles (*Dermochelys coriacea*), two loggerheads and one unidentified, and one of the leatherbacks was photographed feeding on a *Rhizostoma* jellyfish.

In December the pattern reverted to that at the beginning of the year with seven small turtles (two loggerheads and five Kemp's ridleys) washed up, mostly dead, in Dorset and Cornwall.

The *Annual Turtle Report* states "A cold stunning event took place along the eastern seaboard of the USA affecting large numbers of Kemp's ridley turtles through November-December 2014. It is possible the Kemp's ridleys stranding in the UK/RoI during the beginning of the year were Kemp's ridleys that never fully recovered and were swept across the Atlantic in strong currents.' This would apply to the Jersey turtle in January. It is tempting to suggest that a similar event may have occurred towards the end of 2015 and account for the exceptional numbers this December.

[*Emily Duncan, Julie Hatcher, Daily Telegraph, UK Cetacean Strandings Investigation Programme, British Isles & Republic of Ireland Marine Turtle Strandings & Sightings Annual Report 2015 (by R.S. Penrose & L.R. Gander)*]

SEABIRDS

Introduction

[There is no overall collation of seabird records for 2015.]

Notes on Lundy

Puffins at Jenny's Cove on Lundy on 20th June. Image: Keith Hiscock

Puffin numbers at Lundy continued to rise now that the island is rat free and, with the help of funding from Banrock Station, monitoring includes time-lapse photography revealed 264 confirmed burrows were being used in Jenny's Cove plus a further 30 across the cove - estimated population 500-600 (Beccy MacDonald, Lundy Warden).

Teams of specialised ringers were again present to ring Manx shearwaters in September with 255 chicks and 126 adults ringed. Three of the chicks ringed on Lundy were subsequently among hundreds of shearwaters found dead in the wintering quarters in southern Brazil as a result of severe weather. Following the first confirmed breeding by storm petrels on Lundy in 2014, one was heard singing for long periods on a July night in the main breeding colony of Manx shearwaters on Lundy's west coast. Although most puffin records in 2015 were from the colonies at Jenny's Cove (maximum count 250 compared to 240 in 2014) and St Philip's Stone, small numbers were also seen at Long Roost (including birds entering burrows) and on the water off Pilot's Quay, North Light and North East Point, giving further evidence of the species' slow but steady increase. Peak counts of razorbill and guillemot in 2015vwere 1,100 and 1, 568 respectively, but are unrepresentative of the actual size of the colonies since there were no full censuses during the year. (Tim Davies, Lundy Field Society)

SEALS

Edited by **Sue Sayer**

Cornwall and Devon

Cornwall Seal Group became Cornwall Seal Group Research Trust (CSGRT) gaining charitable status (number 1162936).

Three major reports were compiled in 2015 on:

- The effects of entanglement on grey seals for World Animal Protection
- Ghost gear in Cornwall for World Animal Protection
- West Cornwall Photo ID Project and the Carracks to St Agnes boat Photo ID Project for Wave Hub.
  (See references at the end of this section.)

Natural England have confirmed SSSI protection for the only two critical mainland haul outs in SW England in West and North Cornwall making it an offence to destroy, damage or disturb grey seals above mean low water mark.

The 2015 seal census was completed by land and boat based volunteers covering all key seal sites.

Seal PMEs: 2015 had the highest number of stranded dead seals in Cornwall since records began. For the first time in a long time there was some limited fundng for PME follow up on seals Jan – Apr 2015 thanks to Natural England.

Marine life and coastal surveys by boat 2015

Funded by volunteers, World Animal Protection; Cornwall College and Wave Hub

Delivering important data on all species and other issues such as lost gear; local knowledge capacity building; a watching brief, local engagement and BND ID too.

* POLPIP (Trevose to Boscastle): 8: 01/15; 02/15, 04/15, 06/15, 07/15, 08/15, 10/15, 11/15.

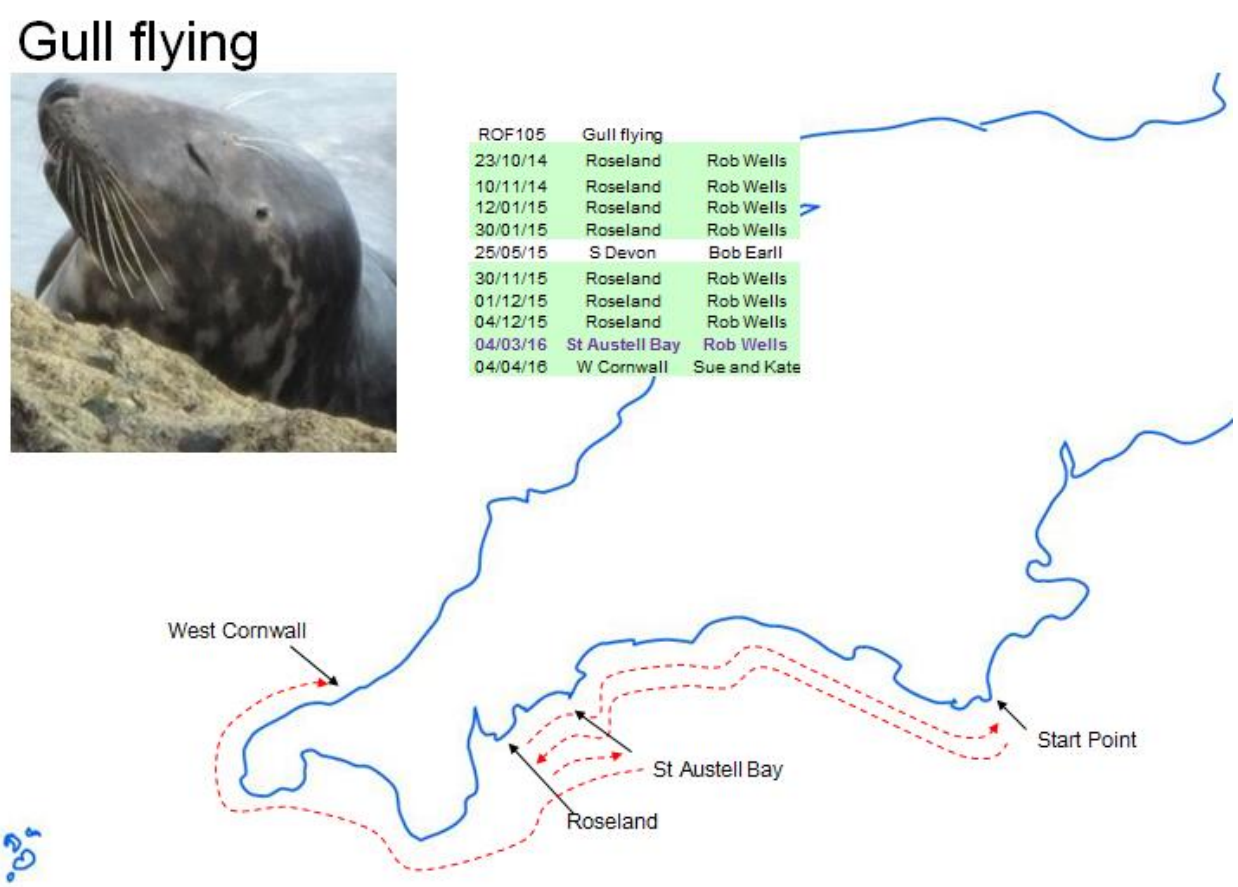
* STAPIP (St Agnes to Trevose): 8: 02/15; 04/15, 05/15, 06/15, 07/15, 09/15, 10/15, 11/15.

* CASPIP (Carracks to St Agnes): 9: 01/15; 02/15; 03/15; 04/15, 05/15, 06/15, 07/15, 08/15, 10/15.

Surveys: land based surveys 2015: South Devon, Looe (including LISPIP), St Austell Bay, Roseland, Lizard, St Clements, Carn Guthensbras, Longships*, Pendeen, River Cove/Carracks, West Cornwall, Porthtowan, Porth Joke, Newquay, Rumps, North Cornwall. (*RSPB season only) 2577 seal sightings added to database 2015.

Notable news:

- Top highlight of the year! CSGRT had the first photo identified seal link between north Cornwall and south Devon – young male 'Gull flying' identified at Great Sleaden Rocks near Start Point by Bob Earll on 25/05/15. Previous sighting had been on the Roseland on 30/01/15 photographed by Rob Wells. Gull flying was subsequently identiified on the north Cornish coast by Sue Sayer



- First identification of a seal at Gurnard's Head (from Godrevy)
- In Feb 2014 there were 278 seals identified at more than one site. By 31/12/15 this was up to 419!
- 8 in 138 days: eight different entangled seals rescued in 138 days by BDMLR – one known to die. Still heaps of them out in the wild
- Key defied the books having a second pup on the Lizard where she has spent all year!
- Hufflepuff rescued in 2009 as a white coat gave birth to a white coated pup herself in 2015 on the Lizard
- Ghost gave birth to and successfully weaned her 13th pup in 13 consecutive years on the same beach
- Septimus and Spade died – both were identified from strandings and had their life histories compiled
- Confirmed seal shooting in the Isles of Scilly
- MMO work experience hosted in April 2015 two personnel from Newcastle and London for two days

- Cornwall Mammal Group conservation grant awarded for software purchase
- Go pro underwater footage of seals, common and bottlenose dolphins, sunfish and barrel jellyfish
- Seal ID galleries for Looe, Lizard, Roseland, St Austell Bay and Morte Point
- Linked Mediterranean Monk Seal sighting with recording body for ID of individual in Athens harbour
- Volunteer numbers soared including help with adminstrative stuff

Research reports

Sayer, S. & Hockley, K. 2016. Wave Hub shadow seal research 2015 to 2016. Report to Wave Hub.

Sayer, S., Hockley, K. & Allen, R. 2015. Entanglement and its effects on grey seals (Halichoerus grypus). 2000 to 2013. Cornwall and North Devon. Report to World Animal Protection.

Sayer, S. & Williams, K. 2015. Ghost gear in Cornwall 2014 to 2015. Report to World Animal Protection.

These reports are not in the public domain, contact sue@cornwallsealgroup.co.uk for more information.

Eight seals in 138 days rescued by British divers Marine Life Rescue.

Dorset

Sarah Hodgson Dorset Wildlife Trust Marine Centre Seasonal Assistant

The Dorset Seal Recording Project was launched in 2014 to learn more about both the common seals and grey seals that frequented the Dorset coast. The project was primarily focussed on collecting data on local seal sightings and recording individual animals using photo identification.
Information has come from a number of sources including Durlston Country Park, the local National Coastwatch Institute and MARINElife, but the majority of sightings have been opportunistic, casual sightings reported by members of the public.

In 2015, a total of 82 separate seal sightings were recorded. This figure has gone up from 64 sightings during 2014, an increase of 28%. It is possible that this increase is more likely to be showing an increase in public awareness of the project, rather than a reflection of the seal numbers. Grey seals were spotted most frequently, 53 times. Common or harbour seals were recorded on 12 occasions and the remaining 17 sightings were unconfirmed species.

(i) Sightings by species

Seals were recorded from the Dorset coast throughout the year, although more were spotted in August (27%) than any other month of the year. Over three quarters of the total number of sightings for the year were reported between May & September.

(ii) Dorset Seal Sightings 2015

Seals have been spotted all along the Dorset coast from Lyme Regis in the West to Christchurch in the East. There are areas where seals are spotted more frequently, although these tend to be the busier, more popular visitor areas, not necessarily places preferred by the seals.

(iii) 2014-2015 Sightings map

For the majority of sightings (83%) the seals have been in the water and have only been hauled out on 8 occasions (17%). This has meant that obtaining suitable photographs for identification purposes has proved difficult. Up until the end of 2015 13 individuals had been catalogued – a further 4 have been added during the first part of 2016.

The first seal to be added to the Dorset seal photo ID catalogue in 2014 was positively matched a further 5 times during 2015 – all sightings from Portland Bill. This particular seal, 'Fiver', has now been recorded 15 times over 3 consecutive years.

Lundy

(From the Annual Report of the Lundy Field Society)

Population counts are undertaken by the warden. In 2015, nine counts were made with the highest count being of 146 seals on 33 July.

CETACEANS

Edited by: **Tom Horton**

Main Observations

Of the 86 observations gathered at SWME 2015, 12 observations involved cetacean. Of these there were: four Risso's dolphin observations, bottlenose dolphin observations, one common dolphin observation, one harbour porpoise observation, one humpback whale observation and three concerning unidentified small cetaceans. Each observation referred to one or more individuals.

Certainly, the most striking feature of the cetacean activity, at least in the summer of 2015, was a pronounced increase in sightings of Risso's dolphins. Chis and Annabelle Lowe from Atlantic Diver, Duncan and Hannah Jones from Marine Discovery and Billy Heaney from AK Wildlife Cruises all reported multiple sightings of the species. This suggests that there was either a highly mobile group that frequented Falmouth Bay, Mounts Bay and the North Cornwall coast, or multiple groups. The sightings in Mounts Bay were accompanied by the remains of cuttlefish, presumably after having been predated on by Risso's dolphins present in the bay. Sadly, these reports of elevated sightings were further corroborated by a rare stranding of three Risso's dolphins, recorded by the Cornwall Wildlife Trust (CWT) strandings team.

Ruth Williams (CWT) reported a relative lack of bottlenose dolphin records being reported to the CWT sightings hotline. Contrarily, Bob Earll reported an early season sighting (May) of a group of 10+ (including a juvenile) bottlenose dolphins at Start Point, South Devon, which may have then been re-sighted the following day at Gwennap Head, West Penwith. Although unconfirmed (there are reportedly pictures from both sightings) this is a tentative record of a family pod travelling more than 100 miles in a single day, which would be remarkable for the species.

Common dolphins were reported only once in the observations of the conference: off the Manacles in Falmouth Bay. However, anecdotal records suggest that 2015 was another very good year for common dolphins, with them recorded almost daily during August-October by boat tour operators from Falmouth Bay to Padstow.

The Cornwall Seal Group surveys in the wider Camel Estuary over the winter reported regular sightings of harbour porpoises. Also, repeated sightings of cetaceans which were sent into Seaquest online on all three transects in 2015. In addition to the records from the conference, there were good numbers of harbour porpoises at times during the spring and autumn in Mounts Bay and Falmouth Bay.

There were several sightings of humpback whales reported from around the west Cornwall coast through the Autumn and Winter. Although numbers aren't given here, there were certainly more than Cornwall has seen in many years.

Two records of cetacean spp. Are summarised below:

"From 1st of January 2015 for six days of sea-watching fieldwork (all daylight hours). Bottlenose dolphins and/or harbour porpoises observed in St Ives Bay every day. Often groups of ca. 8 for up to 6 hours." Alice Trevail

"Dolphin seen swimming in Millbay Harbour from Ballard House, was guided out of harbour by boat. Reported to DBRC" Jenny Wytcherley

Further reading: Cornwall Wildlife Trusts 'Seaquest Southwest' annual report is available and provides a much more holistic overview of cetacean sightings for 2015. That can be found here: http://www.cornwallwildlifetrust.org.uk/sites/default/files/seaquest_annual_report_2015_final.pdf.

Strandings

Julie Hatcher reports "Large numbers of species from North America stranded on floating litter December 2015-January 2016. 150+ Columbus crabs (*Planes minutus*), Florida rock snails with eggs. *Stramonita haemastoma* (1st record for Dorset), ark shell (possible 1st UK record), *Chama* sp., scorched mussel (new record), *Caprella andreae* (abundant on some fishing buoys). Some species still waiting identification confirmation."

David Fenwick reports "the overall theme for 2015 was southern species moving north and trans-Atlantic rafting or cementing species on plastic flotsam because of ideal Gulf Stream, Jet stream and constant SW winds at the end of 2015. It was the best year for sea beans in living memory (Dr. Paul Gainey), and new species of sea beans were also discovered, so a few firsts for the UK."

Details are:

TRANS-ATLANTIC RAFTING SPECIES 2015
(New, verified species and added to UKSI)
Akatopora leucocypha. 10.11.15 at Praa Sands from NE Atlantic / Gulf of Mexico
Linuche unguiculata. 27.12.15 and 28.12.15 at Marazion from NE Atlantic / Gulf of Mexico
Ostrea equestris. 28.12.15 and 30.12.15 at Marazion from NE Atlantic / Gulf of Mexico
Isognomon radiatus. Marazion and Par Sands 12/15 from NE Atlantic / Gulf of Mexico
Chama sarda. 10.11.15 at Praa Sands from NE Atlantic / Gulf of Mexico

Rafting species previously found in UK
Isognomon bicolor. 11-12/15 at Marazion, Par Sands and Praa Sands from NE Atlantic / Gulf of Mexico
Pinctada imbricata imbricata. 20.12.15 at Par Sands from NE Atlantic / Gulf of Mexico
Dendostrea frons. 27.12.15 at Marazion from NE Atlantic / Gulf of Mexico
Acanthodesia tenuis. (Cosmopolitan species) 20.12.15 at Par Sands from NE Atlantic / Gulf of Mexico

Other Reports/Papers on Cetaceans

2015 Annual Summary Report: Marine Strandings in Cornwall and the Isles of Scilly

Report by: Cornwall Wildlife Trust Marine Strandings Network: Abigail Crosby, Anthea Hawtrey-Collier, Niki Clear and Ruth Williams

Executive Summary

Data on marine organisms that stranded on the shores of Cornwall in 2015 were collected by the Cornwall Wildlife Trust Marine Strandings Network (CWT MSN). All species were recorded in the database. However, when possible, the majority of cetaceans, seals, basking sharks and turtles were examined and recorded in detail by trained volunteers of the Network. A total of 96 cetaceans were recorded in 2015. Harbour porpoises (*Phocoena phocoena*) represented the majority of strandings (44%, n=42), followed by Short-beaked common dolphins (*Delphinus delphis*) (35%, n=36). Of particular interest were four Risso's dolphins (*Grampus griseus*) which is noteworthy due to these being a relatively uncommon species in Cornish waters.

In total, evidence of bycatch was identified in 18% (n= 17) of all stranded cetaceans (n=96) in 2015. CWT MSN volunteers retrieved 22 cetaceans for post-mortem examination. Bycatch was found to be the cause of death in 36% of the animals (n=8). Of those not sent for post-mortem (n=74), but examined by MSN volunteers *in-situ* using the Bycatch Evidence Evaluation Protocol (BEEP), 12% (n=9) showed features consistent with bycatch. These features are based on recognised net entanglement marks such as fin edge cuts/slices, encircling net marks and severed appendages. Several other animals showed signs of previous bycatch such as healed fin edge wounds; however these animals were not included in this total if there was no other evidence of entanglement observed. The remaining 65 animals were considered inconsistent with bycatch as; cause of death was inconclusive based on the data available, carcasses were unsuitable for examination due to decomposition, or the cause of death was attributable to other factors such as disease.

125 dead grey seals (*Halichoerus grypus*) were recorded by the Network in 2015: This is the highest ever annual number of recorded seal strandings, of which 30% (n=38) were categorised as pups measuring less than 120cm. 25% were male (n=32), 15% were female (n=19) and 60% were of unknown gender (n=74). The majority of grey seal strandings were in January and then between November and December which coincides with the peak breeding and weaning season. The unusually high number of seal strandings recorded in January 2015, (n=24), is thought to be due to storm systems hitting the Cornish coast, coinciding with the end of the pupping season. Thanks to collaborative work with Cornwall Seal Group Research Trust (CSGRT), three stranded seals (4%) were identified from their photo-ID catalogue. Ten grey seals were retrieved for post-mortem examination in 2015. Of these post-mortems, there were four cases of infectious disease, two cases of bycatch, three cases of trauma, and significantly, one case of a rifle shot wound was found on the Isles of Scilly.
2015 saw a much lower annual count of dead birds reported compared with the previous two years, with only 55 birds recorded from 39 individual reports. Apart from extreme circumstances, such as the PIB pollution incident in 2014, stranded birds continue to be vastly under recorded.

The Marine Strandings Network collects records of all species of stranded marine life in Cornwall. During 2015, three turtles were reported; one Leatherback, one Kemps Ridley and one Loggerhead. Several jellyfish, hydrozoa, crustaceans, blue mussel, cuttlefish and a European squid were also reported to the MSN hotline during the year. Data were captured in the Marine Strandings Network database. Data on cetaceans, seals and turtles were shared with the UK Cetacean Strandings Investigation Programme (CSIP) database and in the case of turtles, also submitted to the Database of Marine Turtle Records for the United Kingdom & Eire.

MANAGEMENT

Edited by: **Sarah Clark**

Harbour porpoise. There has been continuing pressure to establish SACs for harbour porpoise (or add them to designated features in existing SACs). See, for instance, Dolman, S.J., Tetley, M.J., Eisfeld-Pierantonio, S.M., Green, M., Read, F., Ritter, F. and Evans, P.G.H. 2015. The necessity of Management Options for effective harbour porpoise conservation in the UK: Case studies of emerging Areas of Concern. A WDC Report.
(http://www.ascobans.org/sites/default/files/document/WDC%20harbour%20porpoise%20management%20options%20rpt%202015.pdf)

Marine Litter. Issues of plastics pollution are becoming more visible. Fishing for litter South West has been running since 2009. This initiative involves 160 participating fishing vessel from the South West collecting marine litter caught in their fishing gear or seen in the water as they go about their daily fishing activities. Twelve harbours in the South West are involved in the project and the SW fishing industry has collected 150 tonnes of marine litter with up to 88% of the litter collected being lightweight plastics.

Dean Quarry photographed on 25th April during a survey of the proposed location of a new harbour. Image: Keith Hiscock

Dean Quarry (Lizard) proposed re-opening. Shire Oak Quarries Ltd proposes re-opening a disused quarry at Dean near Coverack and St Keverne on the Lizard Peninsula in Cornwall. Their plan is to turn a small disused quarry into a sea based 'superquarry' in line with those found in Norway and at Glensanda in Scotland. There are many concerns with the proposed project. The primary concern is that the project involves construction adjacent to the Manacles Marine Conservation Zone and potential further damage by the proposed barge movements. The planning application was approved by Cornwall Council in April but the Secretary of State Greg Clark ruled that there should have been an Environmental Impact Study carried out and overturned this decision in June.

Spoil disposal offshore of Whitsand Bay. Cefas report concludes "it is at present not possible to determine the origin of the subtidal mud habitat within the Whitsand and Looe Bay MCZ, however while it is likely that disposal activity at the Rame Head South disposal site contributes fine material, it is highly unlikely that it is responsible for the presence of the mud habitat located within the MCZ." 'Rame Mud' has been sampled since the earliest days of benthic studies out of Plymouth. See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468832/Rame_Head_MCZ_Subtidal_Mud_review_final_October.pdf.

Fisheries Management. Since 2014 the IFCAs and MMO have been working hard to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive and are subject to an assessment of their impact on EMS. 2015 has seen a continued push by the IFCAs and MMO to assess commercial fishing activities and their impacts on the features for which the European Marine Sites are designated.

Tranche 1 MCZ were designated in 2013 and MCZ assessments have been undertaken on the gear feature interactions in MCZ to ensure that there conservation objectives are furthered. This workload has been huge for all the IFCA and is on-going and the timetable for appropriate management for commercial fishing activities to be brought in is December 2016. In order to meet this deadline the IFCAs and MMO have been collecting data on fishing effort, location and extent of features within the site and under taking literature reviews as well as real-time impact studies of the interaction on different fishing gear types on the habitats and species designated.

The South West IFCAs have been undertaking a review of their inherited byelaws. The Devon & Severn IFCA has introduced Permitting Byelaws for many of the fishing activities taking place in its district. These Permitting Byelaw are

flexible and adaptive. The conditions of the permit may be changed after appropriate consultation with permit holders, should there be a need for changes in management of the fishing activities (for example if new evidence of impacts arises, fishing effort levels change or new fisheries emerge). In 2015, Devon & Severn IFCA introduced the Potting Permit Byelaw and Diving Permit Byelaw, bringing management of these activities, for both commercial and recreational fishers, under permit conditions. All fishers must have a permit from the IFCA. The IFCA has been working on a Netting Permit Byelaw and there have been periods of consultation on possible management options throughout the year. D&S IFCA Mobile Fishing permit byelaw came into being in 2014 and continues to manage demersal and pelagic trawling and scallop dredging in the district. In order to manage these activities and measure compliance the IFCA is looking to introduce an inshore vessel monitoring system on vessels in the district. The MMO is currently overseeing a national inshore vessel monitoring system project to get type approval of a system or systems that fulfil strict criteria, which will then be deployed on mobile gear fishing boats. These vessels can be tracked in real time using this system, through mobile phone technology, to ensure that the vessels comply with management measures in the district, in particular spatial closures.

D&S IFCA has been undertaking research to inform fisheries management. These research topics include investigating the size of sexual maturity of whelks to ensure that the minimum conservation reference size (MCRS) in the district is sufficient to allow 50% of the population to reproduce at least once. This work was on going throughout 2015 and will be complete in 2016. It is very likely that an increase in the MCRS is needed. Angling and bait collection surveys as well as bivalve surveys have been undertaken in MPAs to ensure any removal of these species will not damage the sites features but also allows a sufficient supply of food for overwintering birds that use the sites. Surveys to monitor spiny lobsters in the Lundy MCZ and Skerries Bank MCZ have been set up. This involves both commercial potters and divers. As a feature of the MCZ with a recover conservation objective, the IFCA is gathering data on the location, abundance and movement of this species.

Appendix 1

Seaquest Southwest Summary Report 2015

Seaquest Ad-Hoc Sightings

'Ad-hoc sightings' are casual records of marine life, reported as-and-when animals are observed. This is in contrast to 'effort-based' data which comes from trained volunteers conducting surveys over a specific time period to actively search for the animals.

Ad-hoc sightings of marine wildlife are always encouraged, and can be sent to Seaquest Southwest via the Online Recording for Kernow and the Isles of Scilly website at www.orks.org.uk . Alternatively the information can be emailed to seaquest@cornwallwildlifetrust.org.uk or reported by phone to the Marine Conservation Officer on 01872240777 ext. 208. If possible, photos should always be included with sightings as they help to confirm species identification.

There was a 28% increase in ad-hoc sightings sent into to Seaquest in 2015 compared with the previous year, with 1550 records involving a minimum of 10,000 animals which stretched the length and breadth of Cornwall. This marked increase is most probably representative of the continued success of the Seaquest programme in raising awareness of the importance of recording of our marine life, resulting in an increase in trained volunteers and engaged members of the public sending in data to the project.

In short 2015, similar to 2014, could be described as a rather unusual year for marine animals.

Basking shark numbers were extremely low with a total of only 22 reports across the county, compared with 76 reports in 2014. The majority of these were from a period of two weeks in late April and offshore, possibly suggesting the plankton blooms were located away from Cornwall's coastline.

SPECIES	NUMBER OF RECORDS
Common Dolphin	128
Harbour porpoise	495
Grey Seal	733
Bottlenose Dolphin	52
Basking Shark	22
Risso's Dolphin	95
Minke Whale	15
Orca (Killer Whale)	1
Striped Dolphin	4
Leatherback Turtle	1
Pilot Whale	1
Harbour Seal	2
Bowhead Whale	1
Total	**1550**

Numbers of ad-hoc species records reported to Seaquest Southwest during 2015.

In contrast we had large numbers of cetaceans, including 495 reports of harbour porpoise (an increase from 341 reports in 2014), 128 reports of common dolphins (an increase from 122 reports in 2015) plus a number of unusual records such as a large number of Risso's dolphins (95 reports compared to 28 reports in 2014 which was previously deemed a successful year for the species). However the most unusual sighting in 2015 was the bowhead whale spotted in February 2015 in the waters around St Martins, Isles of Scilly. Bowhead whales are a high artic species, with this record as the first in the UK.

Reports of the southwest, inshore pod of bottlenose dolphins were limited in 2015. The decrease in records, from 105 in 2014 to only 52 in 2015, is probably not significant enough to warrant concern, as the animals could be located elsewhere in the Devon and even Dorset coastal waters. It would be valuable, therefore, to assess all south west sightings for bottlenose dolphins in 2015, and demonstrates the importance of Cornwall Wildlife Trusts move towards coordinating further regional research into this important species.

Numbers of ocean sunfish, previously down by approximately 60% in 2014 from usual numbers, returned to levels similar of the better years of 2012 and 2013, with nearly 150 records from across the county. The Seaquest Southwest Project, intrigued by this elusive species, invited PhD student Natasha Phillips to our annual Seaquest Marine Recorders Conference in November 2015 to speak about her research on the sunfish and their ecology and biology.

Seaquest Southwest wished to thank all of its dedicated volunteer sea surveyors, plus the public who have sent in invaluable data to the Project to enable it to achieve its aims. All data collected via Seaquest Southwest is shared locally with the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS), and nationally with partners Sea Watch Foundation and governing bodies such as Natural England (NE) and the Joint Nature Conservation Committee (JNCC).