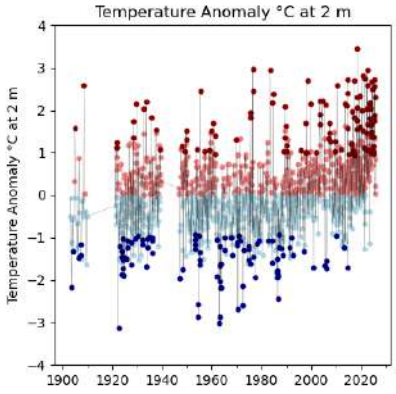
South-West Marine Ecosystems - The State of South-West Seas in 2025

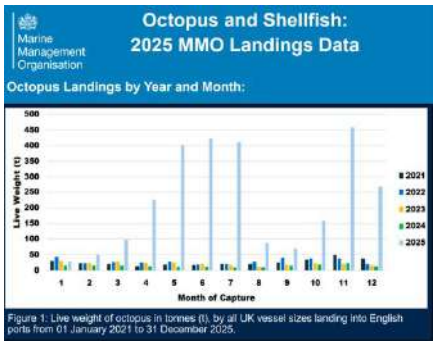
Report

A collation of observations made through the year from monitoring studies, harvested from social media, publications etc. and recorded by the editors of chapters.



Seawater temperatures out of Plymouth (at least) achieved Marine Heat Wave (MHW) conditions in spring and summer and again in November.

Storms caused mortalities of many species: here, a wash-out of Otter Shells *Lutraria lutraria* at Studland Bay at the end of December.



The 'outburst' of Common Octopuses in 2025 was outstanding but not unprecedented. Landings data (the light blue columns) from English ports.

Many inshore fish species have shown higher numbers. Conger eels are a regular part of the fish fauna but the very high numbers since 2023 of juvenile and small individuals continues.

Seals Research Trust volunteers likely recorded a world first of successfully weaned wild seal pup twins at 'Lizard South' to mother 'Key'.

The upward trend in effort-corrected sightings of Risso's Dolphins has continued and is likely linked to increased numbers of cuttlefish and octopus in south-west coastal waters.

(Images are credited in the relevant Chapters)

Edited by Keith Hiscock MBE and Bob Earll
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Contents

1. The South-West Marine Ecosystems Model:
Building Social Capital to produce an Annual State of South-West Seas Report

Bob Earll (bob@bobearll.co.uk)

The aim of the SWME model is to enable and produce an annual report on the state of south-west seas and build the social capital among organisations, networks and individuals active within this region who are involved in research, management and recovery of the marine environment. SWME Reports each year since 2014 can be downloaded. SWME provides a communications platform including webinars, a YouTube channel, an annual conference, an annual report and wider publicity that enables this community to share the changes they have recorded. Sign up here.
The SWME Model (Version 3) is accessible via this link: https://swmecosystems.co.uk/swme-organisation.

The key points of the South-West Ecosystems Model (SWME) are set out below:

- **Annual** The programme of communication runs on an annual cycle to report change and the state of south-west marine ecosystems in a timely way to influence research, management and recovery.
- **Communication: Meetings** Through conferences, webinars and the digital media including videos.
- **Communication: Reporting - State of the South-West Marine Ecosystems** The reports cover a number of thematic topics on natural systems: oceanography, plankton, seabed and seashore, fish, seal, marine and coastal birds, cetaceans, and management thematic topics: spatial management, MPAs, fisheries, water quality and plastics pollution.
- A**udience** Scientists (Research, Institutional & Citizen), managers & policy advisors, organisations and the wider public.
- **Regional scale & resonance** Covering the Celtic Sea & English Channel and adjacent countries, achieving a level of granularity that is not achieved at a larger national scale and having a relevance and resonance with the target audiences.
- **Social capital, organisation, partnership & collaboration** Building social capital through meetings that enable greater co-operation and collaboration through an informal partnership. To provide a network for cascading information and raising awareness.
- **Voluntary – Finance** Relying on the voluntary input of the south-west marine community to build continuity and certainty which is not dependent on fund raising.
- **Freedom of decision making** SWME has no official status or affiliation with any research, management or policy programme or with any organisations. This gives the steering committee the freedom to act as it sees fit in relation to any year's programme.

2. Introduction to the 2025 report

Keith Hiscock (khis@mba.ac.uk) **and Bob Earll** (bob@bobearll.co.uk)

This is the twelfth in the series of annual reports on the observations of species, ecology ecosystems and management for a specific year. For reporting on 2025, we continued to benefit from the input by the 'Communities of Practice': bringing together experienced and active individuals in many of the topics. We held a strong series of webinars during early 2026 hosted by the Cornwall Wildlife Trust, Marine Biological Association, Exeter University (Penrhyn campus), University of Plymouth, the MMO and from a conference at the Plymouth Marine Laboratory in April 2026. It remained, however, for the editors of separate chapters of this report to draw-together events and news through the year, helped my monthly collations of observations by Paul Naylor. The webinars and conference presentations can be seen on the SWME YouTube Channel: https://www.youtube.com/channel/UCojA2OkFX0fM-oq7bVTofhQ .

This report can be cited (but depending on the house style of where it is being cited) as:

Hiscock, K. & Earll, R. (eds) 2026. South-west Marine Ecosystems Report for 2025. *Marine Biological Association of the UK, Plymouth.* DOI - 10.17031/waxr-4s21

We encourage you to cite the specific chapter and the editor of that chapter.

Thanks to the chapter editors and all the people who have contributed their observations, views and images. It is a fantastic collaboration.

The development of the SWME report

The report for 2025 continues the expanded number of chapters and the ever-stronger focus on conclusions that tell something of the 'State of South-West Seas'. The chapters often reflect the contributions of hundreds of recorders across the south-west many of whom have gone the extra mile to record and photograph and report their sightings. SWME demonstrates how citizen and professional science can work effectively together on many issues. Hopefully the SWME report will provide another source of feedback that encourages more people to take part in the overall effort. We now have a contact list for SWME of over 1350+ people who will receive the links to this report. You can sign up on http://swmecosystems.co.uk/. The character of each chapter relies greatly on the type of information being collected and the history of study for the topic – so expect some unevenness.

Understanding 'Ecosystems' – the 2026 SWME Conference

The conference in 2026 was a departure from the usual format of accounts for each thematic topic. The Steering Group decided that we should explore a more ecosystem-based conference with emphasis placed on looking at past, present and future changes. SWME is independent and has the freedom to experiment and the 2026 conference was unlike anything we had done before. The experiment paid off and has prompted a wide range of outputs in particular understanding the remarkable changes – regime shift – we have seen over the last 20 years and exploring the collective view of the audience (130+) on the threats they see to the future of the south-wests ecosystems.

Making the links and interpreting change

2025 will go down as the 'Year of the Octopus' and this has been reported in both the webinars and in this report. The explosion of Common Octopus to the point where it has become a keystone species in south-west has been remarkable. The impact on crab, lobster and scallop populations on which it preys has been significant but it has also become a key food source for seals, Risso's dolphins, Blue Shark and Conger Eels. Some inshore fishermen have been able to adapt to market their catches of Octopus. Whilst Common Octopus breeding have been recorded in past SWME reports in 2023 and 2024 this bloom has been remarkable and one hypothesis is that has been prompted by the localised marine heat waves that have been recorded in the south-west now for 2023 and 2024 (See Tim Smyth's oceanography chapter.)

'Temperature' was a theme in interpreting change in 2025. Summary description of change can be found in MCCIP reports (Temperature | Marine Climate Change Impacts Partnership) where:

- Sea surface temperature (SST) around the UK generally shows a significant warming trend of around 0.3°C per decade over the last 40 years
- Model simulations indicate a continuing warming trend around the UK, with average annual mean SST values predicted to be up to 3.11°C (±0.98°C) greater at the end of the century (2079–2098) compared to current conditions (2000–2019) under the RCP8.5 scenario.
- Temperatures are also projected to increase on the seafloor, with increases up to 2.49 (±0.94°C) expected by the end of the century.

Preparing the annual report makes the report editors especially think about how best to present observations and actions in a way that can inform and influence. We have continued to look for 'indicators' that summarize an often-complicated picture. It's not easy and there are many flaws in converting observations and effectiveness of actions into measurements that are repeatable. Many of the observations and measurements reported give clues or conclusions on 'The State of South-West Seas'. Making links between different aspects of reporting (for instance management measures and change in species abundances or oceanography (especially now rising temperatures) and increased/decreased abundance of species continues to be difficult and likely will be for some time to come. What the work of the Communities of Practice (CoPs) continues to show is how collaboration between difference observers both professional and citizen scientists corroborate observations. Often, it is looking for historical precedents, knowing about life history traits of species and understanding that other factors (such as ocean currents) may be relevant that may help to explain change.

'Using' the annual reports

In the introduction to the report for 2021, we listed and explained our thinking for the following headlines:

- Describing 'normal' patterns of events
- Population trends – up and down
- Marking major events and their effects
- Highlighting significant ecological and population changes
- 'Stand-out' observations – new novel and exceptional events
- Managing human activities in the south-west marine ecosystems
- Acting to focus interest
- Telling stories about what we know and providing access for education and outreach

What Next – keep posting and sending in your observations

SWME is continuing to develop in many ways – you can play an active part in the CoPs and we rely greatly on observations that you make. Do send a note of what you have seen and images to the relevant chapter editors.

South-West Marine Ecosystems – The State of South-West Seas in 2025

3. Summary of conclusions

Bob Earll (bob@bobearll.co.uk) **and Keith Hiscock** (khis@mba.ac.uk)

The evidence collected from observations and publications in 2025 provide accounts of events, of increases and decreases in abundance of species, impacts of human activities and catalogues management measures. For 2025, we have tried to link physical and chemical changes in our seas and the impacts of humans to the variability that we see in biology: something that is sometimes easy (for instance, destructive effects of storms) and often difficult (for instance, possible impacts of pollutants). Do contribute your thoughts on cause-and-effect and do keep informing us about what you observe and do.

1. In the English Channel out of Plymouth, the spring and summer consistently achieved temperatures that can be categorised as a Marine Heat Wave (MHW), which is the third year in a row that this has happened. Temperatures for the autumn were around the long-term average but with MHW conditions recommencing in mid-November.
2. High temperatures and bright sunshine in early summer caused bleaching of some intertidal algae.
3. There were lowered salinities in the English Channel for almost the entire duration of 2025.
4. The winter storms of 2025 – 2026, especially in the January – February period (2026) resulted in a major bird wreck, the first for many years, and produced wrecks of shallow sediment species as well as significant damage to coastal infrastructure.
5. It was an unremarkable year overall for plankton. Continued low summer abundance of *Calanus* and lower numbers of gelatinous species (Mauve Stinger, Crystal Jellyfish and salps) compared to previous recent years.
6. Exceptional observations include anomalously low numbers of picoeukaryotes (tiny, non-bacterial primary producers) and some rare/ first records of some warmer water and potentially toxic dinoflagellates in summer.
7. 2025 will go down as the 'Year of the Octopus' with a massive explosion of Common Octopus damaging shellfisheries for lobsters, crabs and scallops and in turn becoming a major food source for seals, Risso's Dolphins, Blue Shark and Conger Eels. The octopus 'explosion' has been linked to higher temperatures.
8. The great increase in abundance of Spiny Lobsters *Palinurus elephas* continued.
9. The lower numbers of some starfish species reported for 2024 continued in 2025. However, for Common Starfish, A*sterias rubens*, there was a recruitment in late summer/early autumn off the south coast and offshore with very large numbers of small individuals being seen in places.
10. The Hair Curler Seaslug *Spurilla neapolitana* was a new record for Britain and there were some algae which had been found in previous years were confirmed new records to Britain in 2025.
11. Seagrass continued to thrive and expand in extent although the importance of seagrass for biodiversity continued to be untested and unmonitored.
12. The first record of the non-native ascidian seasquirt *Didemnum pseudovexillum* was published in 2025, and a variety of non-native species continue to cause concern.
13. A number of fish species doing well and the populations of Comber, Blackspot (Red) Bream and the Black Bream are continuing to grow and extend their range. Ballion's Wrasse was observed nesting from the Plymouth area. The explosion in juvenile – 'bootlace' – Conger Eels continues.
14. Changes to planktonic systems have supported significant changes to fish populations since the 2014-2015 period. Small forage fish Sardine, Anchovy and Sprat are doing well but with large inter-annual changes in the biomass, whilst apex predators like the Atlantic Bluefin Tuna and Blue Shark are doing very well.
15. The decline in surface sightings of Basking Sharks (three sightings) continued and they have undergone a range shift.
16. Another poor year for summer catches of Mackerel was recorded.
17. Rare fish findings for 2025 include another record of single Sturgeon, a single Halibut, Two Banded Bream and single White Bream, Blue Skate and Flapper Skate.
18. The number of turtles reported in 2025 was about the average for the region.
19. Impressive numbers of southerly seabird breeders from land, such as the 53,000 Great Shearwaters estimated off the Lizard in September 2025 and approx. 3,000 Balearic Shearwaters in Lyme Bay in July.

20. A good year for terns and healthy numbers of Puffins, Guillemots and Razorbills where recorded.
21. MARINELife recorded their first Wilson's Storm-Petrel in Lyme Bay in 20 years of surveying.
22. The range of migration of Grey Seals linked Cornwall travelling to Ireland, Wales France and Holland was remarkable.
23. The Grey Seal population was undetermined as this is an open population across the entire Celtic Sea but various metrics suggest it is stable.
24. The pupping season for Grey Seals is changing rapidly.
25. Disturbance is a huge issue for Grey Seals.
26. There were 39 Harbour Seal sightings with up to a maximum of five at 12 locations. No successfully weaned Harbour Seal pups were recorded.
27. The data suggest a significant northward shift in the distribution of Common Dolphins in the Bay of Biscay, as well as a coastal shift during summer, autumn, and winter.
28. The upward trend in effort-corrected sightings of Risso's Dolphins has continued and is likely linked to increased numbers of cuttlefish and octopus in south-west coastal waters.
29. Coastal Bottlenose Dolphins are no longer being recorded in the western part of the region during the summer months. However, observations of the offshore ecotype of Bottlenose Dolphins continue to increase.
30. Humpback Whales continue to be recorded in the region. In 2025, they were consistently observed along the North Cornwall coast during January and February.
31. Marine Planning The first three-year report on the South West Marine Plan was published in 2025 encompassing data from 2021-2023. MMO will start data collection during summer 2026 for the second three-year report which is due for sign off by the Secretary of State and be published in summer 2027.
32. Five new evidence projects were published. These can be viewed on the MMO evidence projects register.
33. In August 2025, White Cross wind farm was consented as a test and demonstration site.
34. The Celtic Sea becomes a hub for floating offshore wind research Multiple major projects — including JNCC's ProcBe, Natural England's POSEIDON, Plymouth's ECOFlow Frontline, and the Subsea Soundscape Project.
35. Falmouth Docks redevelopment raises serious contamination concerns. A proposed £150 million expansion of Falmouth Docks would require dredging over 643,000 m^3 of sediment.
36. Devon and Severn IFCA challenges evidence base of Fingleton Nuclear Regulatory Review regarding fish mortality at Hinkley Point.
37. According to the new Wildlife Trusts' MPA Recovery Assessment, 58% of UK MPAs are currently in 'degraded' or 'degrading' condition, while only 15% are classified as recovered or recovering.
38. MPAs Progress was made through Stages 3 and 4 of the MMO's offshore MPAs fisheries management programme, with Stage 3 proposing measures to protect seabed features across 42 MPAs and Stage 4 developing options to manage pressures on highly mobile species such as harbour porpoise.
39. The Government announced a review of the English MPA network and proposals for strategic compensation within MPAs linked to offshore wind development.
40. 2025 was a year where organisations reporting plastic pollution saw the presence of plastic on the south-west coastline hold steady for another year. Evidence gathered by local coastal clean-ups shows at least 21,100 kg of pollution was removed by 15,300 volunteers, whose time was worth over £396,000.
41. Again, the top plastic pollution items recovered were ghost fishing gear and pollution stemming from single-use plastic.
42. 2025 was also a year that saw the issue of micro- and nano-plastics hit headlines and the public health impacts of plastic pollution start to be considered. We eat a credit card's worth of plastic a week, with growing evidence of links to infertility, respiratory disease and cancer through the whole lifecycle of plastic production. From extraction to production, distribution, use and disposal.
43. Plastic production is set to double by 2040. While the task of tackling its pollution of the coastline and seas of the south-west may seem daunting, there are opportunities on every level to influence and drive change.

4. Oceanography Background Conditions – Western Channel Observatory

Tim Smyth Plymouth Marine Laboratory (tjsm@pml.ac.uk)

Figure 4.1: Stations of the Western Channel Observatory

The Western Channel Observatory (WCO) is an oceanographic time-series and marine biodiversity reference site in the Western English Channel (Figure 4.1). In situ measurements are undertaken weekly at coastal station L4 and fortnightly at open shelf station E1 using the research vessels of the Plymouth Marine Laboratory (PML) and the Marine Biological Association (MBA). These measurements are complemented by PML's recognised excellence in ecosystem modelling and satellite remote sensing science. By integrating these different observational disciplines, we can begin to disentangle the complexity of the marine ecosystem. The WCO measures several key parameters important to the functioning of the marine ecosystem such as light, temperature, salinity and nutrients. Station L4 has some of the longest time-series in the world for zooplankton and phytoplankton, and fish trawls have been made by the MBA for a century. Station E1 has a hydrographic series dating from 1903.

Overall conditions for the year – 2025

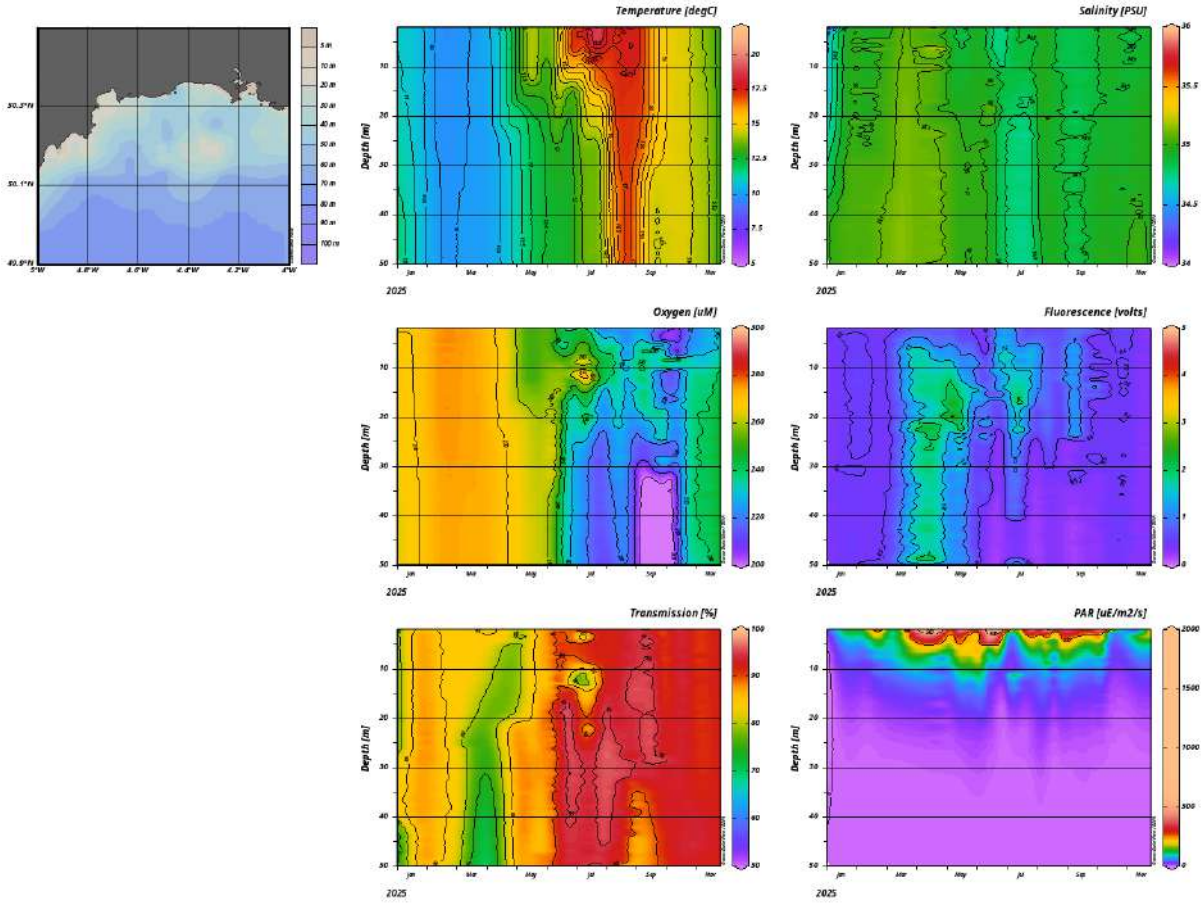

Figure 4.2. Conditions throughout the water column at station L4 during 2025 from individual profiles taken using a rosette sampler with multi-parameter "CTD", deployed from the RV Plymouth Quest.

Vertical profiles for multiple parameters are taken using a sampling CTD rosette on a weekly basis at station L4 (**Error! Reference source not found.**). This is at fine enough resolution to observe the start of the thermal stratification of the water column in spring (typically April) and the breakdown in autumn (typically September).

From Figure 4.2 (temperature) it can be seen that the year started with very warm conditions throughout the water column (well mixed, apart from fresher water intrusions at the surface) with temperatures around 10.8 °C. This cooled to the minimum recorded temperature (for 2025) in early February of 9.7 °C. Stratification became established in late April / early May, with the maximum stratified state in late-July (surface around 18.7°C; depths below 30 m around 14.0 °C).

Stratification was gradually eroded in September / October and the water column finally became mixed in mid-October (14.7 °C throughout).

The water column as a whole was notably fresher throughout the year by up to 0.3 – 0.4 PSU below the long-term average of 35.1 PSU (see Figure 4.2 - salinity); this was linked to wider English Channel conditions rather than the localised influence of the Tamar Estuary, unlike previous years.

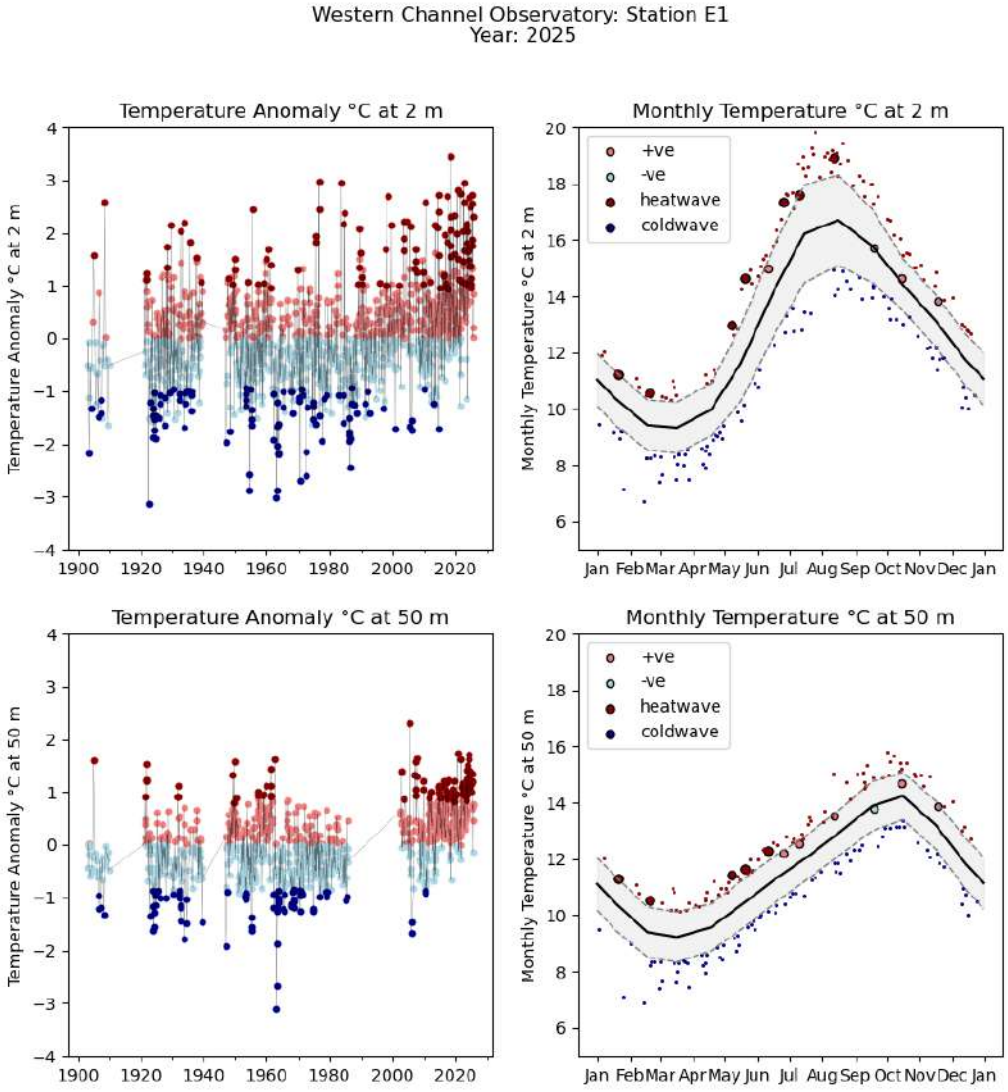

Figure 4.3. E1 temperature time-series and anomaly analysis (Left panels at surface and 50m) with light red points showing positive and light blue negative anomalies. Right panels: Solid lines show mean monthly temperatures (period 1903 – 2025), with dashed lines giving the 10th (lower) and 90th (upper) centiles, with the grey region being within this envelope. Large symbols represent individual observations (n=11) made by the RV

Plymouth Quest during 2025. Dark red points represent data outside above 90th centile and dark blue below 10th centile. Record temperatures for given dates of any year during series represented by small points if outside the 10 – 90th centile. A Marine Heat Wave is defined as a temperature above the 90th centile.

Figure 4.3 shows the temperature time-series anomalies from station E1, which is one of the longest hydrographic series in the world**.**

At the surface, E1 started 2025 above average and only reached a minimum temperature of 10.5°C in mid-February (although no sampling was possible during March). The spring and summer posted temperatures consistently at or above the 90th centile, which can be categorised as a Marine Heat Wave (MHW), which is the third year in a row that this has happened. Temperatures for the autumn were around the long-term average, with MHW conditions recommencing in mid-November. Temperatures at 50 m depth, relatively well insulated from the surface insolation driven surface layer, were at or above the 90th centile for the most part of the year, apart for a brief spell during autumn.

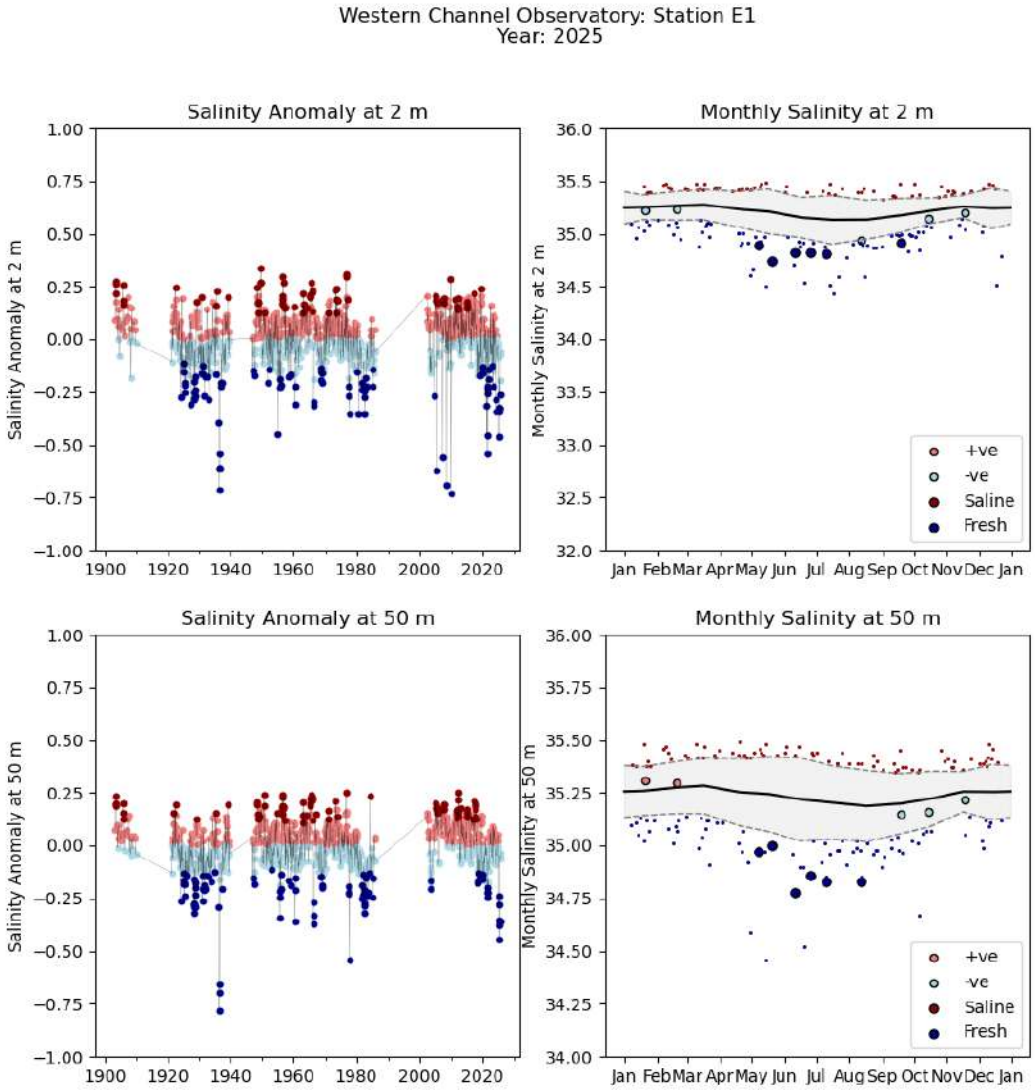

Figure 4.4. E1 salinity time-series and anomaly analysis (Left panels at surface and 50m) with light red points showing positive and light blue negative anomalies. Right panels: Solid lines show mean monthly salinities (period 1903 – 2025), with dashed lines giving the 10th (lower) and 90th (upper) centiles, with the grey region being within this envelope. Large symbols represent individual observations (n=11) made by the RV Plymouth Quest during 2025. Dark red points represent data outside above 90th centile and dark blue below 10th centile.

Record salinities for given dates of any year during series represented by small points if outside the 10 – 90th centile.

Figure 4.4 shows the salinity time-series made using the CTD profiler at station E1.

For almost the entire duration of 2025 the waters were below the long-term salinity mean throughout the water column, this particularly marked for the spring / summer period where values were below the 10th centile. This is likely linked to wider scale hydrographic conditions within the English Channel.

Western English Channel / Celtic Sea as a whole

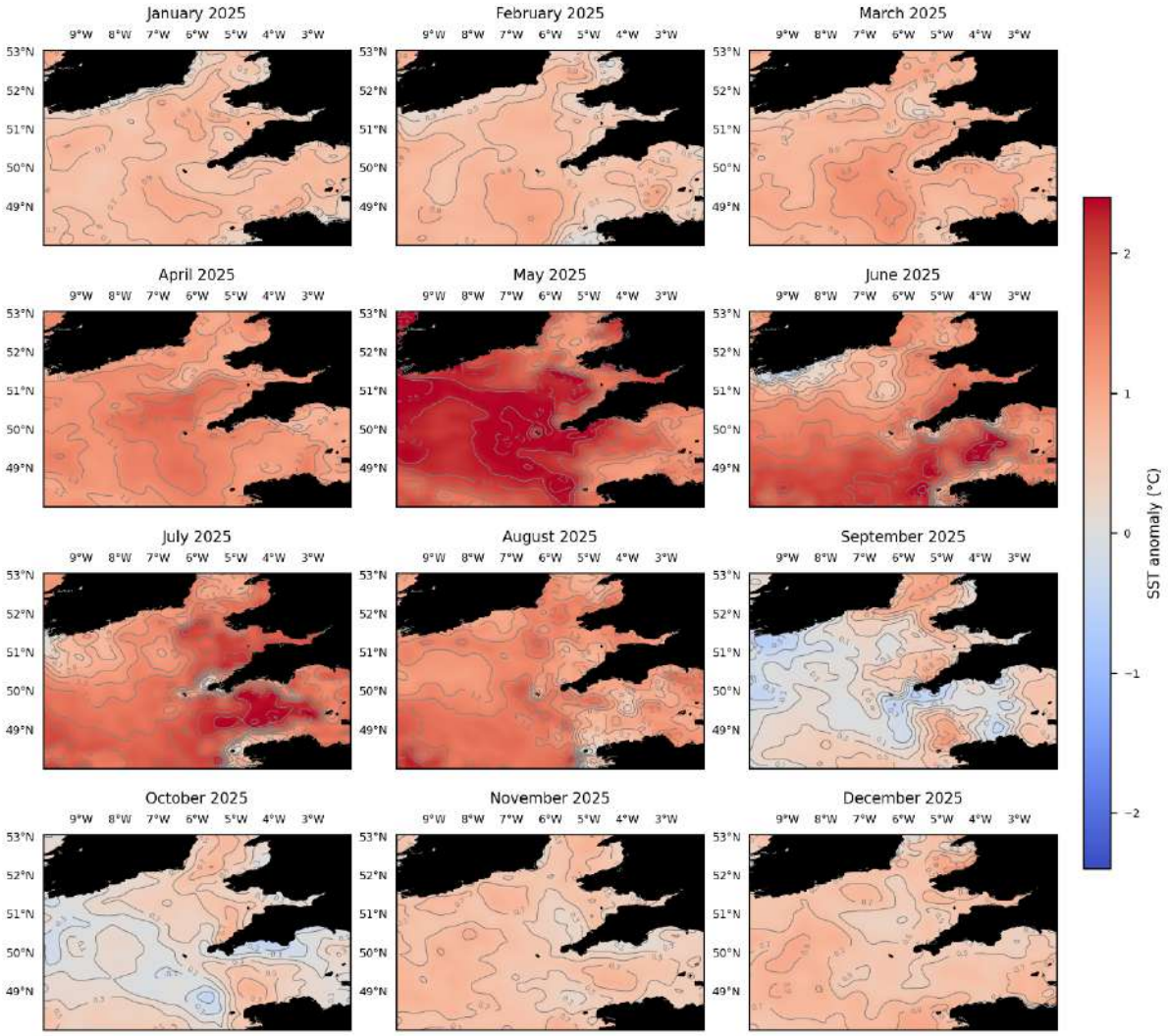

Figure 4.5: Sea-surface Temperature (SST) monthly anomalies during 2025 derived from ESA Climate Change Initiative (CCI) Sea Surface Temperature multi-sensor dataset. Climatological period 1991 – 2020. Data provided by the NERC Earth Observation and Data Analysis and Artificial-Intelligence Service (NEODAAS) and analysis by E. Sullivan.

Figure 4.5 shows the SST anomalies during 2025 from the 1991 – 2020 mean. May – July 2025 are noteworthy in that anomalies are 2 °C above the long-term mean in the Celtic Sea and western English Channel (reflected in the analysis for E1 – Figure x.3). Positive anomalies generally dominate during 2025, apart from in September and October where temperatures are at or slightly below the climatological average (0.3°C below in October).

Named storms during 2025 (UK / Ireland only)

https://weather.metoffice.gov.uk/warnings-and-advice/uk-storm-centre/uk-storm-season-2024-25

https://www.metoffice.gov.uk/weather/warnings-and-advice/uk-storm-centre/index

- Eowyn (24 January 2025)
- Floris (4-5 August 2025)

European named storms during 2025

https://en.wikipedia.org/wiki/2024%E2%80%9325_European_windstorm_season

https://en.wikipedia.org/wiki/2025%E2%80%9326_European_windstorm_season

Links to other useful analysis

UK Met Office Climatological summaries

https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries

Western Channel Observatory

https://www.westernchannelobservatory.org.uk/data.php

Plymouth Coastal Observatory (waves data – Looe Bay)

https://www.channelcoast.org/realtimedata/?chart=98

References

Good, S.A.; Embury, O. (2024): ESA Sea Surface Temperature Climate Change Initiative (SST_cci): Level 4 Analysis product, version 3.0. NERC EDS Centre for Environmental Data Analysis, *09 April 2024*. doi:10.5285/4a9654136a7148e39b7feb56f8bb02d2. https://dx.doi.org/10.5285/4a9654136a7148e39b7feb56f8bb02d2

Embury, O., Merchant, C.J., Good, S.A., Rayner, N.A., Høyer, J.L., Atkinson, C., Block, T., Alerskans, E., Pearson, K.J., Worsfold, M., McCarroll, N., Donlon, C. Satellite-based time-series of sea-surface temperature since 1980 for climate applications. Scientific Data 11, 326 (2024). https://doi.org/10.1038/s41597-024-03147-w

5. Storms in 2025 and in the winter of 2025-2026

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Prepared by Bob Earll, with compilations of the storm data and wave height material from Tim Smyth (PML) Western Channel Observatory and Jonathan Bailey Coastal Process Scientist Jonathan.R.Bailey@plymouth.ac.uk Plymouth Coastal Observatory, With inputs from other SWME thematic topic editors: Tim Smyth, Keith Hiscock, Alex Banks, Mark Grantham**,** Sue Sayer, Dan Jarvis, Bex Allen, Anthea Hawtrey-Collier Anthea.Hawtrey-Collier@cornwallwildlifetrust.org.uk Rachel Yates and Paul Naylor.

Conclusions

1. The patterns of storms in 2025 and in the winter of 2025 and 2026 had greater impact on birds with significant wrecks compared with winter 2024-25.
2. Strong storms following on very closely to one another. 'Bram', 'Goretti', 'Ingrid' and 'Chandra' also brough record high rainfall in December, January and February and freshwater run-off plumes into the sea that considerably increased turbidity.
3. The road at Slapton was once again badly damaged requiring £18m of restoration funding.

Introduction

Storms are a routine and complex part the natural pattern of events in the south-west. Through SWME we are developing a clearer understanding of storm impact on the natural systems in the coastal and marine environment and the context (see below) of the different patterns of storms and their impact. As with previous years when there had been greater storm impact it had been the succession of storms following on closely from one another, as well as storms from the east which seem to impact/disrupt nearshore sediments. With climate change it is predicted that storms will increase in strength and impact. This note covers 2025 (Figure 5.1) and spans the winter months of 2025 and 2026 (Figure 5.2) and the named storms. Assessing the impact of storms is complicated, but *extreme* storms have a very high media profile and have significant consequences for both society and natural systems. When storms ***do*** produce significant impacts, the marine and coastal community-record these events and so lack of records does give '*a sense'* of less storm impact as in 2024. 2025 and the winter of 2025-2026 was very stormy in comparison with 2024 and the winter of 2024-25.

Named Storms 2025 - 2027

Notes on the significant storms in the south-west

2024/25 Storm Season (January – August 2025)

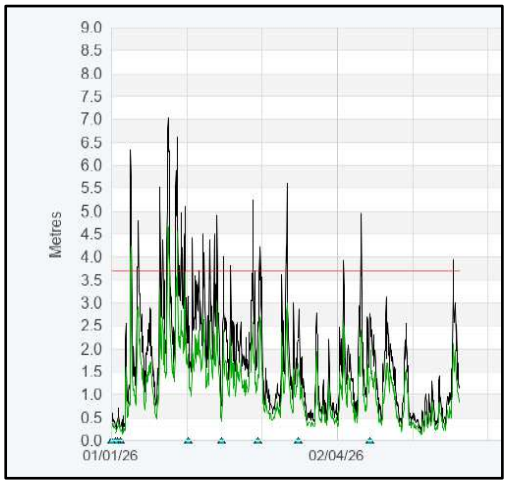
- **Storm Éowyn** (24th January 2025): Remembered as the UK's most powerful windstorm for over a decade. While its highest red-warning wind speeds targeted Scotland and Northern Ireland, it brought widespread gale-force winds and travel disruption across the south-west peninsula.

- **Note on Storm Floris** (4–5 August 2025): This unseasonable summer storm brought record gusts to northern Scotland, but left the south-west relatively unimpacted beyond minor regional wind and rain.

2025/26 Storm Season (September 2025 – April 2026)

- **Storm 'Amy'** (not official name) 15th September 2025:
- **Storm 'Benjamin'** 22nd -23rd October 2025
- **Storm 'Amy'** 3rd 4th October 2025
- **Storm Bram** (9th–10th December 2025): This system brought an unsettled spell to the region, drenching the south-west with up to 100mm of rain in the wettest upland areas and causing local flooding.

- **Storm Goretti** (8th –9th January 2026): Named by Météo-France, this severe system prompted the Met Office to issue a rare red weather warning for damaging winds in Cornwall and the far South West.



- **Storm Ingrid** (23rd –24th January 2026): Named by the Portuguese weather service, Ingrid moved across southern England, pairing with local frontal systems to dump heavy, continuous rain.]
- **Storm Chandra** (26th -27th January 2026): Striking immediately after Ingrid, Chandra compounded the severe weather, leading to Cornwall officially recording its wettest January on record due to widespread flooding.
- **Storm Dave** (4th April 2026): Named by the Met Office over the Easter bank holiday weekend, this storm brought multiple hazards, including strong coastal gales and heavy rain across Devon and Cornwall.

Wave Heights across 2025 and the winter of 2025-2026

The diagrams below (Figures 5.1 and 5.2) have been based on the work of the Coastal Observatory at Plymouth hosted on the national network website https://coastalmonitoring.org/realtimedata/ (Jonathan.R.Bailey@plymouth.ac.uk) The wave height data for 2025 is shown in Figure 5.1 and for early months of 2026 in Figure 5.2.

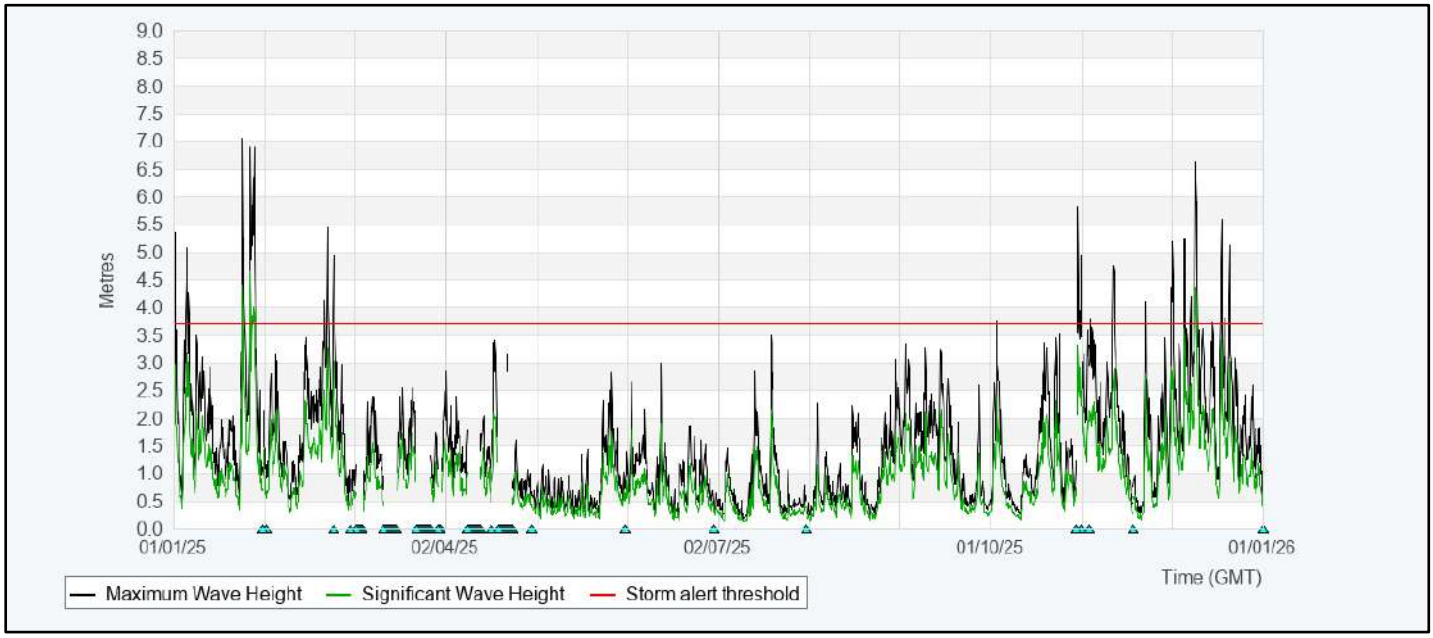
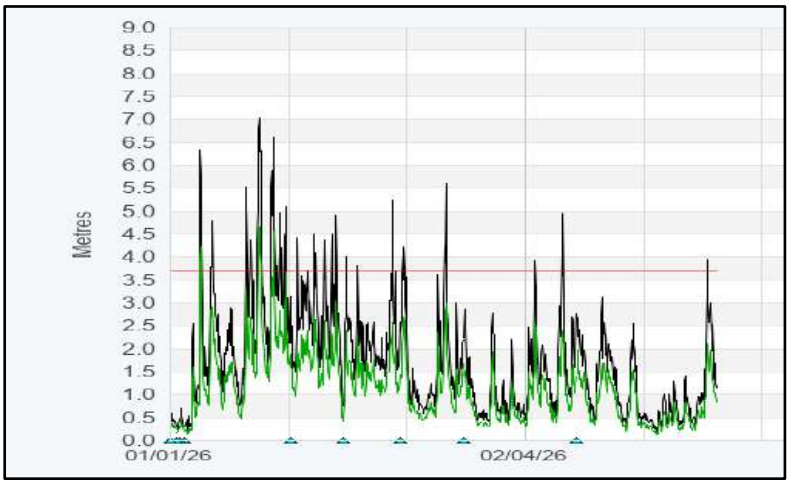


Figure 5.1. Wave height data for 2025.

Storms impacts on wildlife are mentioned in several other chapters and are summarised here:

- Whilst records of 'washouts' of shallow sediment species caused by storms are quite common, the event at the end of 2025 at Studland Bay displaced a large number and quantity if different species (see Chapter 7).
- There were no seabird wrecks reported in 2025 although there were wash-outs of shag nests in the early part of the spring due to storm conditions.
- There was a major mass-mortality event in early 2026 in the south-west and hundreds of exhausted and dead seabirds—predominantly puffins—were washed-up on beaches in Cornwall and Devon. The tragedy was triggered by consecutive severe winter storms that left the birds unable to forage and resulted in mass starvation; more details are given below.

Figure 5.2. Wave height data for 2026



Notes on the winter bird wreck 2026 Rebecca Allen rebecca.allen@cornwallwildlifetrust.org.uk

Cornwall Wildlife Trust started getting calls on the 8th February of dead puffins and within two days had received over 14 reports. This is significantly above the average calls for a year! CWT started reaching out to contacts and realised that a major seabird 'wreck' was happening with thousands of birds (mostly puffins) washing up along the coast of Europe and UK. The public response was amazing – over 400 reports for seabirds within two months. At some points the CWT hotline (staffed by an incredible volunteer crew) was taking over 60 calls a day. We had to ask people to stop calling and report to DEFRA instead but reports started off tail off then anyway. Of those collected the vast majority of birds were emaciated and so probably had been unable to forage effectively due to the poor weather and possibly sediment load (so much rain led to lots of run off). The Cornwall Wildlife Trust Marine Strandings with over 270 dead puffins. This is a significant spike compared to previous years, when as few as two were recorded in similar timeframes. Affected seabirds were discovered across the south-west, with high concentrations washing up on the Roseland peninsula, Falmouth area, Penzance, The Lizard, and Porthleven. Only two cases in April tested positive for Avian Influenza, others test were negative.

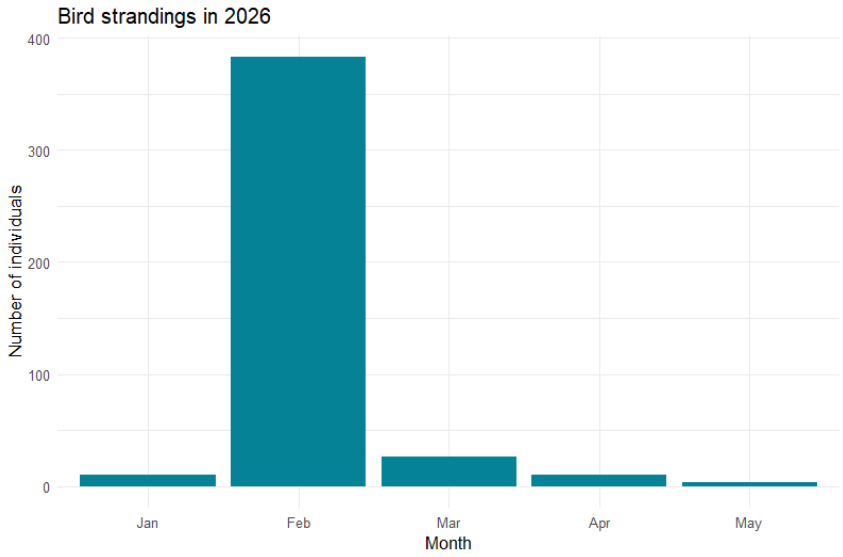


Figure 5.3. Bird strandings in Cornwall winter months 2026

BBC 'The seabird mortality event was the result of severe winter weather from storms like Goretti, Ingrid, and Chandra causing violent sea swells and murky waters. Because puffins rely on sight to hunt, these harsh conditions prevented them from finding food, leading to exhaustion and starvation. The impact was part of a broader Atlantic wreck that affected the Channel Islands, France, and Spain. The relentless storms—which battered the region with almost 50 consecutive days of rain—also destroyed nesting sites and affected other coastal wildlife.'

Seals

When seals are hauled out, especially during the pupping season, they are very vulnerable to storms, especially at spring tides. This point is elaborated in Chapter 11 on Seals. There are three parameters which can help us assess the impact of storms upon seals including:

i) The rescue of white coat seal pups
ii) The number of cliff falls on seal haul outs
iii) The strandings of dead moulted pup during the winter months provided by the Marine Strandings Network (MSN) run by the Cornwall Wildlife Trust

Year-on-year tabulation of the mortalities from these sources can help us build a picture of the developing impact of storms.

i)**The rescue of white coat seal pups** Dan Jarvis The BDMLR Cornwall Seal Hospital received 84 grey seal pups for rehabilitation during the rescue season between August 2025 to April 2026. This is approximately average compared with intake since 2009/10, though the average trend is on an increasing trajectory as casualty rates have increased substantially over this time for a number of reasons.

ii) **Cliff falls** – Sue Sayer Seal Research Trust sue@sealresearchtrust.com The impact of wind and waves at the base of cliffs can have a considerable impact on cliff structure; cliff falls are also exacerbated by extreme rainfall lubricating fault lines in the cliff structure. Cliff falls are common place on a number of south-west seal haul-out sites, but we can only assess mortalities if parts of crushed seal are conspicuous. We have been able to do this for a number of years, but there none were observed in the winter period 2025-2026. If the cliff rocks completely cover the seals there may well be animals that cannot be seen and therefore not counted! In 2025, the Seal Research Trust recorded the highest number of cliff falls above the West Cornwall mainland beach since recording of these incidents started in 2019. (2019 = 1; 2020 = 1; 2021 = 4; 2022 = 8; 2023 = 6; 2023 = 6; 2024 = 9 and 2025 = 13!).

iii)**Marine Strandings Network** Bex Allen (CWT) reports on seal strandings data from the Marine Strandings Network and indicates: "data for 2025 at least didn't seem out of ordinary. Table 5.1 shows the higher number of seal mortalities in January 2026 which suggests the January storms took their toll. There was so much rain and therefore so much run off – coastal waters were opaque with sediment. The conditions may have kept marine mammals further offshore. "Strandings of cetaceans were at a 'normal' level" (Bex Allen, CWT) and the spate of common dolphins occurring up rivers (Fal and Helford) didn't seem correlated with storms as they occurred both before and after the big storms in January.

Table 5.1. Seal mortality by month from 2019 to 2026 for 'Less than one year old' and 'All seals' (Marine Strandings Network, Cornwall Wildlife Trust). Numbers of dead seals are indicated in the table.

	<1 year													
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec		
2020	12	10	2		1	1	4	2	8	34	16	20		
2021	27	23	22	17	9	2	5	1	13	23	17	14		
2022	9	12	4	3	4			4	18	18	12	14		
2023	26	18	10	6	4	2	1	5	17	32	14	24		
2024	20	14	6	6	1		2	11	13	19	14	12		
2025	14	6	3	1	2	3	4	11	21	15	22	15		
2026	24	4	4											
	all seals												total	jan-mar
2019	41	21	6	15	12	7	6	5	29	50	29	25	246	68
2020	23	24	9	2	4	4	7	13	11	46	31	28	202	56
2021	36	35	46	26	23	8	6	1	23	34	26	22	286	117
2022	21	22	13	11	11	4	6	10	27	21	17	29	192	56
2023	32	36	35	17	7	13	4	14	34	46	30	41	309	103
2024	33	42	16	11	9	3	8	18	28	35	19	22	244	91
2025	28	15	14	2	8	9	15	13	33	35	39	28	239	57
2026	49	18	15	7									89	82
	32.875													

Cetaceans Duncan Jones comments: “The stormy winter definitely made the inshore water turbid, which is why the auks in particular suffered. Echolocation would mean this isn't such a problem for Odontocetes [toothed whales] however it might impact Mysticetes [baleen whales] although I am not sure. The winter Humpback Whale sightings did not happen in the 2025-2026 winter period. Generally higher seas states through the spring, summer and autumn made cetacean spotting trickier from boats and probably for coasts too. We did not get any prolonged calm periods in 2025 and the seas states were noticeably higher all year. Higher sea states definitely reduce cetacean sightings.”

Plastic Rachael Yates, SAS Strandings of plastic debris did not seem to occur following the storms.

Storm damage to coastal infrastructure

The damage to the Slapton road is a significant indicator of storm damage. Severe storms and high spring tides caused a catastrophic 200-meter collapse of the A379 Slapton Line between Torcross and Slapton. Following weeks of battering by storms Goretti, Ingrid, and Chandra, the sea defences were overwhelmed overnight, washing the tarmac and parts of the car park out to sea. The destruction left the scenic route between Kingsbridge and Dartmouth completely severed. Early repair estimates for the road sit at roughly **£18 million**, prompting Devon County Council and the local MP to lobby the UK government for emergency infrastructure funding. BBC

6. Plankton

Editor: **Angus Atkinson** Plymouth Marine Laboratory (aat@pml.ac.uk)

Contact: **Jeanette Sanders** (for observations of gelatinous/stranded zooplankton): sea@seadreameducation.com; SouthWest Jellyfish Survey https://www.seadreameducation.com/south-west-england-jellyfish-survey/

Contributors: Jeanette Sanders, Keith Hiscock, Claire Widdicombe, Elaine Fileman, Amanda Beesley

Please cite this chapter as: Atkinson A, Sanders J, Hiscock K, Widdicombe C, Fileman E, Beesley A, (2026) Chapter 6. Plankton In: Hiscock, K., Earll, B. (editors). South-West Marine Ecosystems in 2025 (The State of South-West Seas). DOI - 10.17031/waxr-4s21

Observers we would like to offer particular thanks to: Paul Naylor, Matt Salter, Robert Hurrell, Neil Barnes, David Hamilton, Daniel Cater, Jake Taylor-Bruce, Nigel Mortimer, David Roberts Matt Slater, Ursula Slater, Sarah Hodgson and all those others who have contributed records to this report.

Conclusions

- Unremarkable year overall for plankton. Continued low summer abundance of Calanus and lower numbers of gelatinous species (mauve stinger, crystal jelly fish and salps) compared to previous recent years
- Unusual (but not exceptional) observations include: early and extended bloom duration of *Phaeocystis* along north Cornwall coast and higher numbers of barrel jellyfish than normal
- Exceptional observations include anomalously low numbers of picoeukaryotes (tiny, non-bacterial primary producers) and some rare/ first records of some warmer water and potentially toxic dinoflagellates in summer

Introduction

This chapter is divided into the following sections:

(1) Phytoplankton

(2) Smaller, non-gelatinous zooplankton

(3) The larger gelatinous zooplankton

1. Phytoplankton

Sources of data are:

- PML surveys at the Western Channel Observatory in the English Channel, south of Plymouth
- Submitted observations harvested and compiled by Paul Naylor

Observations from Claire Widdicombe and Elaine Fileman (PML) at Western Channel Observatory

Plymouth Marine Laboratory have been developing their use of a series of newer plankton imaging devices in addition to their FlowCam and flow cytometer. These include the Planktoscope and the Imaging FlowCytobot (IFCB) (Figure 6.1). The latter has provided images of series of exotic, warm water dinoflagellate species, some of which are known to be toxin-producers. They mainly appeared in the exceptionally warm summer months of 2025. The noctilucoid dinoflagellate *Scaphodinium mirabile* (Margalef, 1963) was observed at L4 in July–August 2025 using both live PlanktoScope imaging and the IFCB (Figure 6.1). As far as we are aware, this species has previously only been recorded from the Mediterranean–Black Sea region, the northeastern Black Sea, the Arabian Gulf (Kuwait), and the NW Pacific (Kuroshio region), so this appears to represent a notable biogeographic extension into the northeast Atlantic shelf seas.

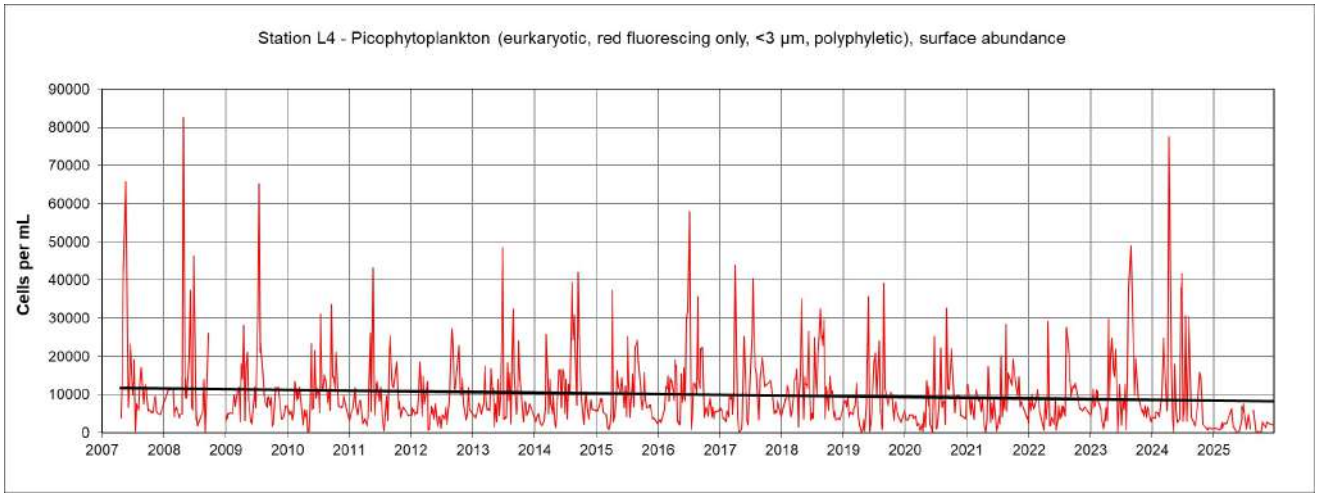


Figure 6. 1. Weekly abundance of picoeukaryotes (tiny picoplanktonic <3µm non-bacterial cells in the surface waters of the Plymouth L4 site spanning April 2007 to December 2025. Data courtesy of Gelen Tarran and Elaine Fileman Western Channel Observatory).

Detailed taxonomic analysis of the weekly collected phytoplankton samples is still underway, but a notable observation of the small fraction (< 20 µm) analysed by flow cytometry was that the very low year-round concentrations picoeukaryote component (i.e. the non-bacterial component of the <3 µm cells) (Figure 6.2).Other taxa analysed by flow cytometry were not unusually low or high and we do not yet understand the reasons for the low picoeukaryotes throughout 2025.

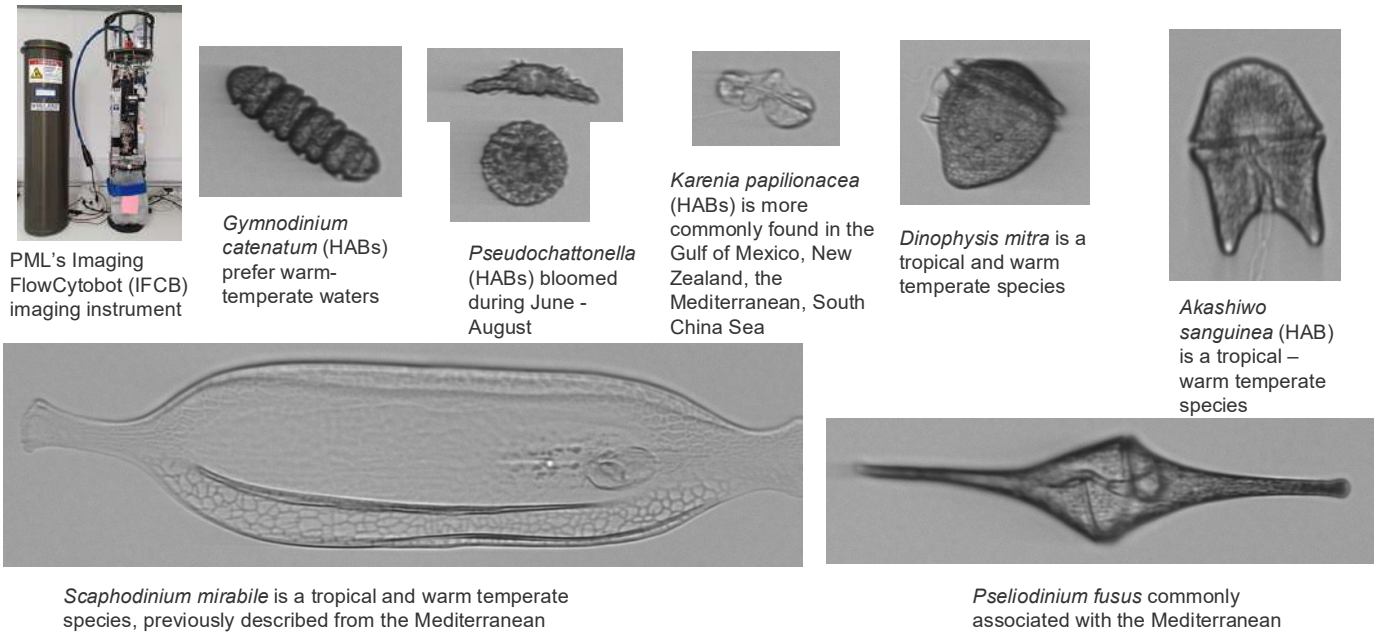


Figure 6.2. Images from the IFCB with examples of exotic or rare dinoflagellate species recorded at L5 mainly during warm water conditions in summer 2025.

2. Submitted phytoplankton observations collated by Paul Naylor

Figure 6.3. Surface foam originating from an unusually early and long-lasting bloom of *Phaeocystis* on the north Cornish coast (Photo of Goose Rock from west Pentire, courtesy of Ursula Slater).

A dense bloom of *Phaeocystis* was observed on Cornwall's north coast during April 2025, with very dense plankton turning the water brown and resulting in a lot of foam forming. This April onset is rather earlier than normal – fishermen typically call this the 'May bloom'. Surfers and divers reported zero visibility and tiny blobs in the water indicative of *Phaeocystis*. This bloom (Figure 6.3) was unusual first because it was so long lasting (at least until the end of April) and second because it was restricted to the north Cornish coast, with the water clear on the south coast.

In August there were several reports of *Noctiluca*, a large dinoflagellate that causes beautiful bioluminescence. Sightings included the Lizard Stunning photos show rare natural phenomenon in Cornwall - Cornwall Live and around high tide above the Millpool Car Park, West Looe.

3. Smaller, non-gelatinous zooplankton

Sources of data are:

- PML monitoring at the Western Channel Observatory in the English Channel, south of Plymouth

PML have not yet completed quantitative analysis of the weekly samples collected from 2025, but based on our observations when collecting the samples, this year was not remarkable, for example with a continuation of the low numbers of *Calanus helgolandicus* in summer which made it problematic to set up egg production experiments

4. The larger gelatinous zooplankton

Sources of data are:

- The SW England Jellyfish Survey: citizen science sightings obtained from social media posts and by direct communications with Seadream Education. Sightings include both live animals and standings.
- Reports submitted direct to SWME. Reports were received from individuals across Cornwall, Devon and Dorset, with particular thanks to: Paul Naylor, Matt Slater, Charlotte Cumming, Christine Ingram, Keith Raven, Louise Scammell, Jake Taylor Bruce, Julie Hatcher and Lin Baldock. Those species such as goose barnacles that have been recorded washed-up on the shore are described in 'Seashore and Seabed' (Section 7).
- PML salp observations at the Western Channel Observatory in the English Channel, south of Plymouth

All sources have been combined in the summary below for 2025

Figure 6.4. Seasonal records of the larger jellyfish in the south-west

Barrel jellyfish were sighted more commonly than many previous years (Figure 6.4) with the highest numbers in May-June and most reports being of strandings, rather than live jellyfish. The common species: moon, compass and blue, were reported in broadly similar abundances to previous years (including a notably high accumulation of moon jellies reported in Torbay in mid-June). The two genera that showed notably high abundances in recent years: mauve stinger and crystal jellyfish, were still present in 2025 albeit in lower numbers.

Related to the true jelly fish are siphonophores, and a notable sighting of one of these was of *Apolemia uvaria* (commonly known as string jellyfish) for 3 days in early September during shore dives in Porthkerris. Also there were reports of another siphonophore (possibly *Nanomia bijuga*) being washed onto the south coast of west Cornwall by the easterly winds at the end of April.

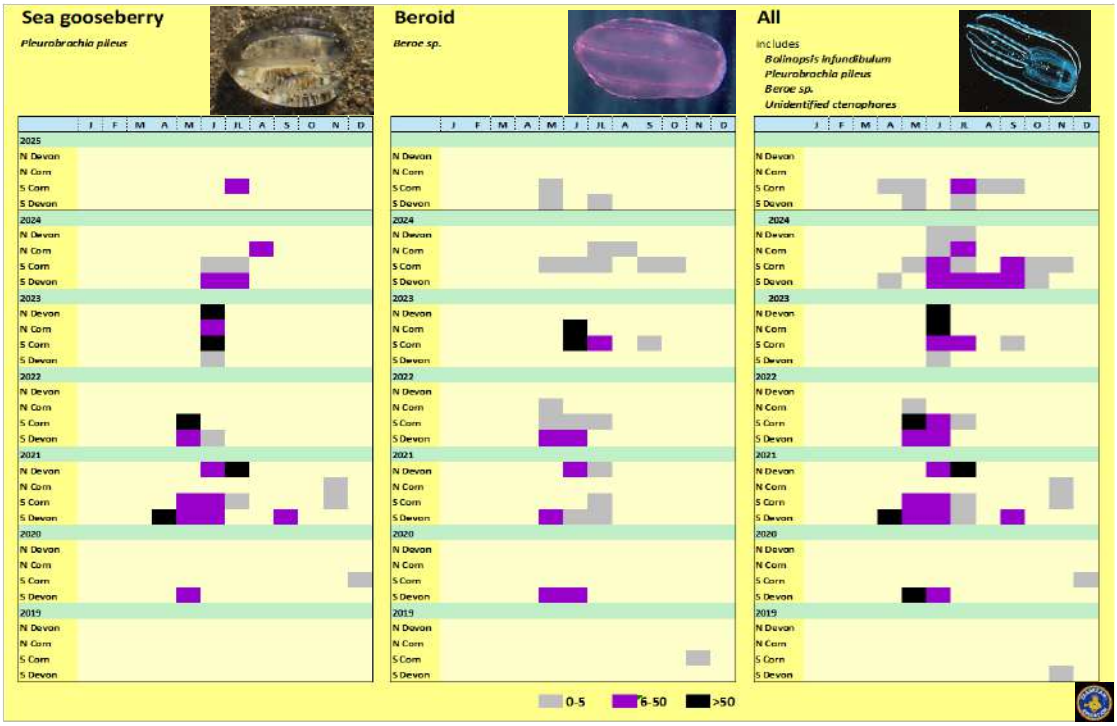


Figure 6.5. SW England Jellyfish Survey. Records of abundance of the Ctenophores by subregion, month and year. Please see SWME Report for 2022 for counting method and a description of survey, its strengths and limitations. Colours reflect maximum number reported by any single sighting in that month: lightest grey = max 5; purple = max between 6 and 50; Black = max >50.

Unrelated to the cnidarians are the ctenophores (Figure 6.5) and while reported in mid-summer the numbers were if anything perhaps slightly lower than in previous years. Noteworthy is an identification of *Leucothoe multicornis* in October. While the above groups are typically carnivorous, another gelatinous group: salps, are fine particle feeders which pump water through a very fine mesh internal filter, which enables them to feed on pico-size (~ 2 µm) particles. Compared to the massive later-summer blooms of recent years, numbers in 2025 were relatively low (Figure 6.6a). Several reports originated from the Scilly Isles, including *Thetys vagina*, the largest known salp species (Figure 6.6b).

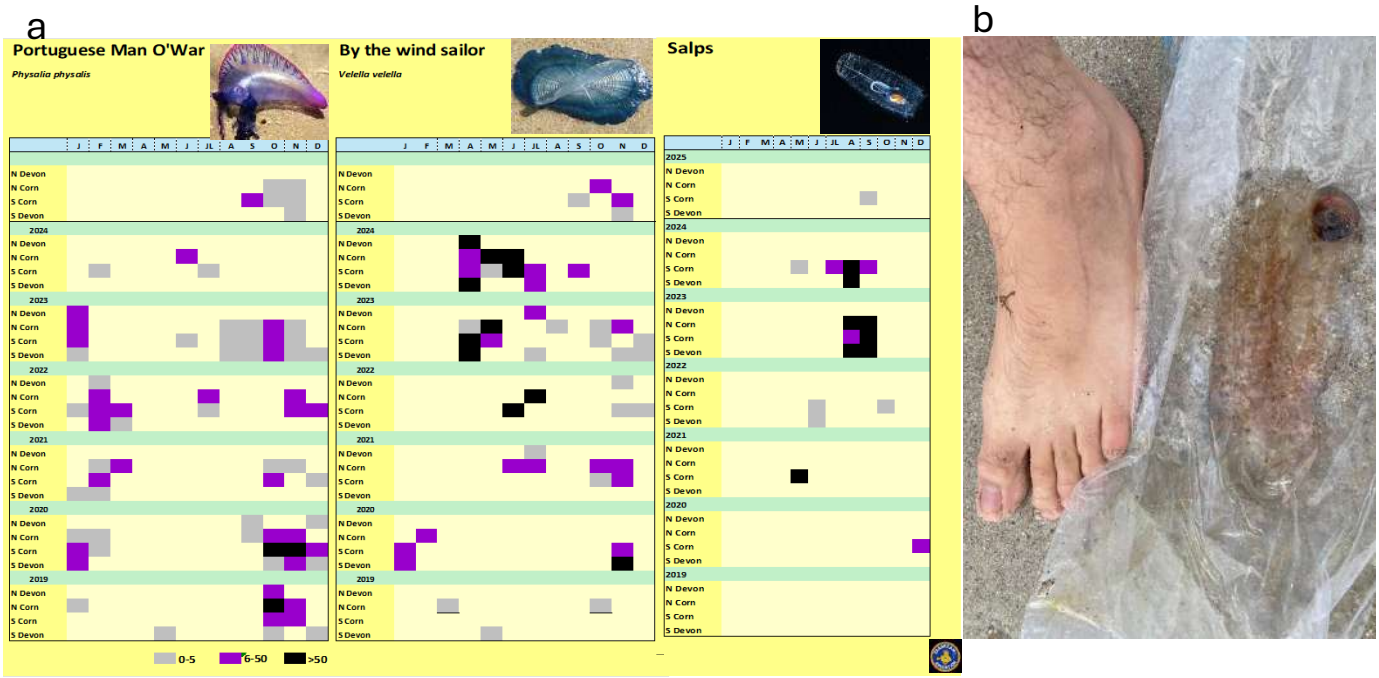


Figure 6.6a&b SW England Jellyfish Survey. Records of abundance of ocean drifters and salps by subregion, month and year. Please see SWME Report for 2022 for counting method and a description of survey, its strengths and limitations. Colours reflect maximum number reported by any single sighting in that month: lightest grey = max 5; purple = max between 6 and 50; Black = max >50.b Salp species *Thetys vagina* recorded on the Isles of Scilly with size 12 foot for scale. This is the largest known species of salp. Photo: Elaine Fileman

Observations of washed-up species include surface dwellers Portuguese Man O'war and by-the-wind sailors (Figure 6.6a). These are typically found after periods of strong onshore winds and reports of these in 2025 were confined to autumn (September to December), compared to more extended seasonal reports of previous years. Very large numbers of by-the wind sailors washed up on the Dorset coast after storm Bram in December. Lastly, there were a few records in early August of single *Janthina janthina* (Violet Sea Snail) at mainland sites (Hayle, Croyde, Constantine) – likely also Isles of Scilly.

7. Seashore and Seabed

Keith Hiscock (khis@mba.ac.uk)

Conclusions and trends

1. 2025 saw a mix of the usual variability (comings-and-goings, rises-and-falls) of seabed and seashore species and two spectacular events: the massive bloom of Common Octopus *Octopus vulgaris* (and likely reduction in abundance of their prey species), and the great increase in abundance of Spiny Lobsters *Palinurus elephas*. Both were most evident off the English Channel coast.
2. Slipper Lobsters, *Scyllarides latus*, were seen much more widely than usual and sometimes in 'clusters'.
3. The Hair Curler Seaslug *Spurilla neapolitana* was a new record for Britain and there were some algae that were also new to Britain but had been found in previous years.
4. There are new or significant records of algae in some south-west locations. One is still a work in progress, but *Ulva rigida* (first for the UK), *Neofolia rosea* (first for the UK) and *Bonnemaisonia clavata* (first record since 18th century) have been confirmed.
5. Seagrass continued to thrive and expand in extent, although the 'advertised' importance for biodiversity continued to be untested and unmonitored.
6. There was no apparent reversal in the loss of Plumose Anemones *Metridium senile* along most mainland areas of coastal seas.
7. The suspicion that some less frequently occurring starfish had declined in abundance continued.
8. Common Starfish *Asterias rubens* recruited in large numbers in late summer/autumn after apparent severe decline along the English Channel coast in the previous couple of years.
9. The poor condition of previously vibrant marine life at Lundy persisted.
10. High temperatures and bright sunshine in early summer caused bleaching of some intertidal algae.
11. The first record of the non-native ascidian *Didemnum pseudovexillum* in Britain (collected from the seagrass bed at the mouth of the River Yealm in September 2022) was published in 2025.
12. The abundance of Pacific Oysters *Magallana gigas* and *Watersipora subatra* continues to increase.
13. Several non-native filamentous red algae created a 'fuzz' on maerl in the St Austell Bay area. They included *Bonnemaisonia hamifera* (*Trailliella* phase) (the main fluffy red) together with *Asparagopsis armata* (*Falkenbergia* stage) and *Antithamnionella ternifolia*.
14. The non-native 'Oyster Thief' *Colpomenia peregrina* became dominant on some shores in Torbay.
15. Prolonged gales in the early winter had no obvious or unusual adverse effects although storms in late December displaced large numbers of burrowing species in Studland Bay at least.

Algae

Figure 7.1. Heat damaged *Fucus spiralis*. Image: Nova Mieszkowska.

There were several accounts in spring and early summer of large amounts of seaweed growth in the shallows - very conspicuous and reds often very bleached.

Steve Hawkins and Nova Mieszkowska (MarClim programme) report:

- Intertidally and especially during May, fucoid algae were bleached. Fieldwork for MarClim and other related surveys in 2025 recorded that brown and red algae showed extensive signs of heat damage across the MarClim survey season in spring and summer of 2025 as listed below.

- *Laminaria digitata*: heat damage ranging from mild to extreme was recorded at 15 sites in the south, southwest, and northeast of England, north Wales, and the Isle of Man, which were surveyed between March and August.
- *Saccharina latissima*: mild heat damage was recorded at six MarClim sites in the south, southwest of England, north Wales, and the Isle of Man during surveys from March to August.
- *Pelvetia canaliculata*: moderate to extreme heat damage was recorded at six MarClim sites in the northeast of England, south Wales, and the Isle of Man.
- *Fucus spiralis*: mild to extreme heat damage was recorded at 18 sites in the southeast, south, southwest, and northeast of England, south Wales, and the Isle of Man.
- *Fucus vesiculosus*: mild to extreme heat damage was recorded at 17 sites in the southeast and northeast of England, south Wales, and the Isle of Man.
- *Chondrus crispus*: mild to extreme heat damage was recorded at 33 sites in the southeast, south, southwest and northeast of England, north and south Wales, and the Isle of Man.

Changes likely caused by the large amount of sunshine we had especially in spring and early in the summer.

At several sites in South Cornwall, Devon and Dorset the perennial *Laminarian digitata* zone seems to be getting narrower and cover has declined over the last few years from dominance at 80% or more (Super- Abundant) to more localised cover of over 40% (Abundant). In many places S*accorhiza polyschides*, an essentially annual opportunistic species, is replacing it (e.g. at Osmington in March 2026).

Honeycomb Worm *Sabellaria alveolata* was first seen east of Portland Bill (previous confirmed eastern limit in the Channel was Charmouth) with a few tubes found at Osmington in 2021. In 2025, it had reached around 40% cover (Abundant). In early March 2026, it had reached 90-100% cover in a sheet about 3-4 cm maximum thickness, with good settlement of new worms. Previously the last dense cover of reef-forming *Sabellaria* on the North Coast proceeding westwards was at Port Gaverne (Super Abundant reefs), as *Sabellaria* has not been found previously in quantity North-west Cornwall. In recent years occasional tubes have been found further west (Trevone, New Polzeath). At New Polzeath cover has now (October 2025) reached 10-20% (Common) in sheets on the shore.

More of the warm-water hermit crab *Clibanarius erythropus* were found at Trevone in 2025 at their eastern known limit on the North Coast, with Prawle still being the eastern limit on the Channel coast with only a few individuals found. Some were found at Sennen Cove for the first time in 2025.

Recruitment of the cold-water barnacle *Semibalanus balanoides* continued to be very low in 2025 on the south coast but was still occurring in the meso-scale refuge between St Ives and Duckpool on the North coast.

The warmer water species *Perforatus perforatus* continued to be recruiting well throughout the English Channel in 2025.

Keith Hiscock observes native species of kelp (Laminariales – especially *Laminaria hyperborea* and Tilopteridales – pseudo-kelp, *Saccorhiza polyschides*) continue to show slight adjustments to distribution and abundance. Notably (although in the mid-1950s) Bob Forster recorded that kelps on the shallow parts of the wreck of the *James Eagan Layne* in Whitsand Bay, were *Laminaria hyperborea* and *Saccorhiza polyschides* but, in two dives during March, KH could not find any *L. hyperborea* (although still present nearby on ex-HMS *Scylla*). In a paper published in June [https://doi.org/10.1111/ddi.70042], Smale *et al.* observe: “Over decadal timescales, the abundance (i.e., density, standing stock) of a kelp [*Laminaria hyperborea*] population in southwest England [Wembury] declined, which aligns with a concurrent increase in sea temperatures above the optimum for the performance of this species.”

Resilience of kelp species to disturbance (here, *Laminaria digitata*) was tested by King *et al.* (2025) by experimental removal of mature plants (but with no removal of sporelings), observing that assemblages similar to pre-disturbance levels developed within a year or two, indicating a high degree of stability/resilience within the system. However, with increasing *L. digitata* removal, this resilience was lost, which led to decreased standing stock biomass of canopy-formers/understorey algae and clear shifts in assemblage structure.

Figure 7.2. 'Last Man Standing'? A solitary (and not very healthy looking) *Laminaria hyperborea* kelp plant in a forest of *Laminaria ochroleuca*. West Hoe, Plymouth Sound on 11th March.

Golden Kelp *Laminaria ochroleuca*, first recorded in British waters in 1948 in Plymouth Sound (Parke, 1948 https://doi.org/10.1038/162295c0), continues to have a somewhat enigmatic distribution with extensive records from the Isles of Scilly to locations on the south Cornwall coast and a distinct separation (from *Laminaria hyperborea*) in Plymouth Sound with some locations with only *L. ochroleuca*, some with only *L. hyperborea* and some with a mixture. There are 'outliers' of *L. ochroleuca* at Lundy and, strangely, domination of shallow depths on the wave-exposed 'Alternative Rutts' off Stoke Point in South Devon (seen and photographed on 31st May) compared to 'not recorded' at the nearby East Rutts. (KH).

Figure 7.3. 'Heat Map' of the abundance of *Padina pavonica* at Kimmeridge.

Annual surveys to are being carried out at Kimmeridge to monitor the abundance and distribution of Peacock's Tail Seaweed, *Padina pavonica* (a warm water species at the northern edge of its range in the UK). More records of its occurrence and abundance along the English Channel coast would be welcome.

There are new or significant records of algae in some locations. One is still a work in progress, but *Ulva rigida* (first for the UK), *Neofolia rosea* (first for the UK) and *Bonnemaisonia clavata* (first record since 18th century) have been confirmed. Samples were taken by Francis Bunker and identified/confirmed by Christine Maggs.

Seagrass

The several studies of both intertidal *Zostera noltii* (some studies apply other names) and of lower shore (in sheltered locations) and subtidal *Zostera marina* continue to suggest very significantly expanding populations in some locations or at least stable populations (see the 2024 report). Cultivating seagrass in laboratory conditions and planting seedlings or planting seeds *in situ* either for restoration or to establish new beds continued to have mixed success and undertaking 'condition assessments' continues to not address species richness in beds. So, how are the beds doing biodiversity-wise?

Sea anemones and corals (Anthozoa)

Plumose anemones, *Metridium senile.* The loss of Plumose Anemones along the mainland (inshore) coast of the south-west was first noted in the 2023 Annual Report and confirmed for all but a few locations in the 2024 report. Although occasional (usually closed) individuals were seen along those mainland coasts in 2025, no

recruitment/recovery was observed. Deep wrecks continue to be colonised by Plumose Anemones but more attention needs to be applied to whether they are expanded or closed and what colours are represented.

Crustaceans

Spiny Spider Crabs, *Maja squinado*, were observed in moulting aggregations at a few locations in early summer (Jenny Kent reports "spider crabs are amassing" on 23rd June). Spider crab aggregations at Babbacombe 12th July (Edu Santana). Moulting aggregation under and around the jetty at Lundy on 23rd July (Tara McEvoy-Wilding).

Figure 7.4. Scuba Ry snorkelers releasing juvenile lobsters on 10th August. Image: Scuba Ry Divers.

Releases of juvenile lobsters *Homarus gammarus* reared at the Lobster Hatchery in Padstow continued in 2025. Further work is planned to establish survival rates of released lobsters although work in Norway demonstrated that as many of 43 % of landings were found to have been previously released juveniles (DOI:10.1002/9780470751329.ch30)

Figure 7.5. A small Slipper Lobster that was on the outside of a hauled lobster pot on 17th March (Image: Peter Davies)

Figure 7.6. An aggregation of eleven Slipper Lobsters on 24th August in Mount's Bay (Image: Matt Slater).

Slipper Lobsters, *Scyllarides latus*. There were frequent sightings of Slipper Lobsters especially during August including Fran Hockley ("saw three slipper lobsters in among a crowd of spiny lobsters") and, remarkably, eleven in a wreck in Mount's Bay (Matt Slater).

The exceptionally high number of *Octopus vulgaris* (see later) must have had a very significant impact on the abundance of decapod crustaceans, evidenced especially by the reduced catches of Spiny Spider Crabs, Brown Crabs and European Lobsters as well as remains of them in lobster and crab pots. No reports or photographs of eviscerated crustaceans on the open seabed have been seen, as might be expected, in harvested information during 2025. Although octopuses enter pots and consume catches, they likely also bring back crustacean that they catch to pots, which they might use as dens. Remarkably, Spiny lobsters, *Palinurus elephas*, although occasionally photographed in pots as empty shells, were being reported in much higher numbers at least along English Channel coasts in 2025.

Figure 7.7. Aggregation of smallish Spiny Lobsters on the wreck of the *Persier* in Bigbury Bay. 30th November. Image: Fran Hockley.

Spiny Lobsters use their antennae (which are covered in backward-pointing sharp spines) to whip and slash when threatened and, with their more susceptible tails in a fissure (see Plate 7.7), may be able to protect themselves. In the manner of a 'schiltron' (a dense, highly disciplined military formation where foot soldiers pack together in a circle or square with their long spears or pikes pointing outward).

Mollusca

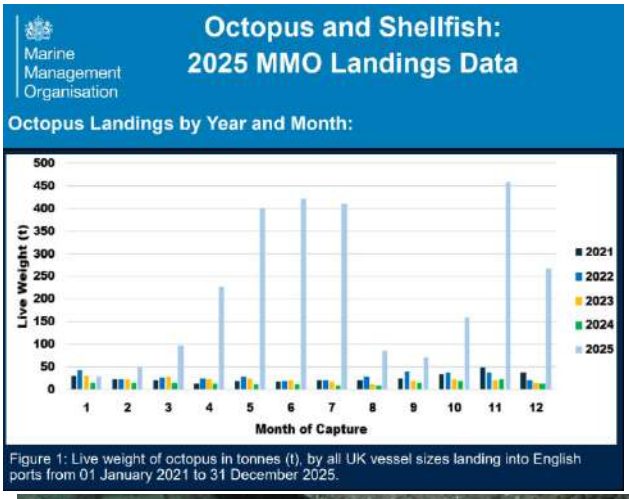


Figure 7.8. Octopus landings into English ports in 2025. The light blue columns are 2025.

The 'outburst' of Common Octopuses *Octopus vulgaris* in 2025 was outstanding but not unprecedented. Similar outbursts were reported in 1900 and 1950 with, perhaps, a minor outburst in the 1930s and a localised one near Falmouth in 2022. By early June, females were in their 'dens' and had been photographed with eggs at Babbacombe (Kirsty Andrews and DanBolt) and slightly later at Porthkerris (Sophie Shields and David Roberts).

Figure 7.9. A Common Octopus, *Octopus vulgaris*, at the Wembury Mew Stone with Comber, *Serranus cabrilla*, in attendance on 2nd October. Image: Keith Hiscock.

Figure 7.10. Octopus in its den with strings of eggs at Porthkerris on 24th August. Image: Sophie Shields.

Figure 7.11. Eggs about to hatch and release paralarvae at Porthkerris on 5th September. Image: Sophie Shields.

Detailed descriptions of the 'Common Octopus event' are not given here as they are available elsewhere. Two reports were published describing the outburst (Stewart *et al.* 2026a&b): https://plymsea.ac.uk/id/eprint/10535/; https://plymsea.ac.uk/id/eprint/10609. Hiscock (2026) describes events in 2025 and outlines the natural history of *Octopus vulgaris* in south-west waters: https://www.britishwildlife.com/article/article-volume-37-number-4-page-241-248/. (See Chapter 16)

Figure 7.12. Two *Aplysia depilans* with an egg mass at a depth of about 20m below chart datum off the Wembury Mew Stone on 2nd October. Image: Keith Hiscock.

Plate 7.13. *Spurilla neapolitana* c.7mm long Jennycliff Bay on 23rd December. Image: Britta Saffron Holms.

Aplysia depilans. This large Sea Hare was reported from several locations around the south-west in 2025.

A few very small *Discodoris rosi* being seen. Also, small Rainbow Seaslugs *Babakina andoni* (sometimes near their food, *Candelabrum cocksii*).

The Hair curler sea slug *Spurilla neapolitana* was first recorded from British waters in Cornwall on 8th September and has since been found at several locations along the English Channel coast. Although many are very small (see image), they have been seen as large as c. 40mm (Charlotte Cumming).

The seaslug *Pruvotfolia pselliotes* was first observed in Britain in 2014 and is known to be distributed along English Channel and north Cornwall coasts. It has now been recorded from Greencliff, Hele Bay and at Ilfracombe (Robin Shrubsole).

Echinoderms

Plate 7.14. Small *Asterias rubens* (with dense mussel, *Mytilus edulis*, spat and a 2025 settlement of *Eunicella verrucosa* on the decks of ex-HMS *Scylla* in Whitsand Bay on 10th October.

Starfish. The 2024 SWME report included: "Offshore, there seem less Seven-Armed Starfish *Luidea ciliaris* and ?no *Porania pulvillus.* Maybe not seeing so many Bloody Henry starfish *Henricea* sp(p). Spiny starfish *Marthasteris glacialis* continue to be present is similar number to previous years. Common Starfish, *Asterias rubens* were not being seen in the Plymouth area at least." That lower numbers of starfish continued in 2025. The absence of *Asterias rubens* was particularly brought to attention when specimens were sought, but could not be found, for a Masters project. The species persisted off North Devon. However, there was a recruitment in late summer/early autumn off the south coast and offshore with very large numbers of small individuals of *Asterias rubens* being seen in places off

South-east Cornwall and offshore on the Eddystone reefs at least. No signs of diseased individuals of Asteroidea were noted. (KH)

Rosy Feather Stars, *Antedon bifida.* The SWME report for 2024 indicated a loss of Rosy Feather Stars on ex-HMS *Scylla* where the species had been visually dominant on large areas of the reef: "sometime after mid-May. Feather stars could not be found on 11th September and, again, on 9th November (but had re-colonised the bow area by 15th March 2025)." That re-colonisation continued during 2025, but Rosy Feather Stars remained large confined to the bow area although their re-colonisation may have been adversely affected by a mass settlement of mussel, *Mytilus edulis*, spat. High abundance of Rosy Feather Stars at specific locations in Plymouth Sound persisted in 2025 (KH). However, heavy rainfall and excessive freshwater runoff into Plymouth Sound led to low salinity (19-23 ppt, down from ~32–35 ppt in flow through tanks) and to rapid and >50% mortality in captive crinoids (Angela Stevenson, pers. comm. on 20th December).

Non-native species

The occurrence of *Didemnum pseudovexillum* in Britain (collected from the seagrass bed at the mouth of the River Yealm in September 2022 by Lin Baldock) was published in 2025: https://doi.org/10.1017/S0025315425100854. The species is virtually indistinguishable from *D. vexillum* in external appearance.

There was some further colonization of shores by Pacific Oysters *Magallana gigas* and a notable increase in the extent of Red Ripple Bryozoan *Watersipora subatra*.

Plate 7.15. Extensive and dense growths of *Colpomenia pergrina* at Livermead, Torbay on 9th October. Image: Mike Puleston.

Algal species included increased abundance of Oyster Thief *Colpomenia peregrina* at least in Torbay (Mike Puleston). Growths of filamentous algae (non-native species) were reported as smothering maerl off South Cornwall (St Austell Bay). Angela Gall reports that *Bonnemaisonia hamifera* (*Trailiella* phase) was the main fluffy red on the maerl (from an unpublished report of 2024 by Doggett and Northen). *Asparagopsis armata* (*Falkenbergia* stage) and *Antithamnionella ternifolia* were other fine reds found on maerl during surveys. They have been found predominantly at estuary sites, with less on the maerl in the bays.

A non-native red alga, *Yendoa hakodatensis* is now reported by Robin Shrubsole from several locations in the south-west. First found as fertile drift plants at Westward Ho! on 15th August 2019 and then, as attached plants on 6th June and 28th July 2022 also at Westward Ho! The original *in situ* find site was relocated in 2024 – showing an expansion in the population size and other locations were found at Westward Ho! The species has also been found at Welcombe Mouth (on 5th October 2024).

Figure 7.16. A well-developed fertile thallus of *Yendoa hakodatensis* found on 24th June 2024. Identification has been confirmed by Christine Maggs. Image: Robin Shrubsole.

In 2025, thalli were found at several locations at Westward Ho!, including fertile material, where it continues to persist. Also found at Combe Martin and at Croyde in North Devon.

[The species is likely to be widespread having been found on Alderney, on the north Brittany coast, in Pembrokeshire and near Kenmare at least.]

Artificial structures

Figure 7.17. Panels being established in Padstow Harbour in November to create a 'Living Sea Wall'. Image: OurOnlyWorld.

Artificial structures that often attract distinctive assemblages of species abound in intertidal and subtidal areas. They include wrecks, the foundations and anti-scour measures for offshore structures, breakwaters and groins with added sculptured Marinecrete blocks and sea walls and floating structures such as marina pontoons. Effort is being put into creating habitats that will enhance biodiversity. In 2025, further sculptured wall panels (to those established in recent previous years) were placed in Fowey Harbour and at Padstow.

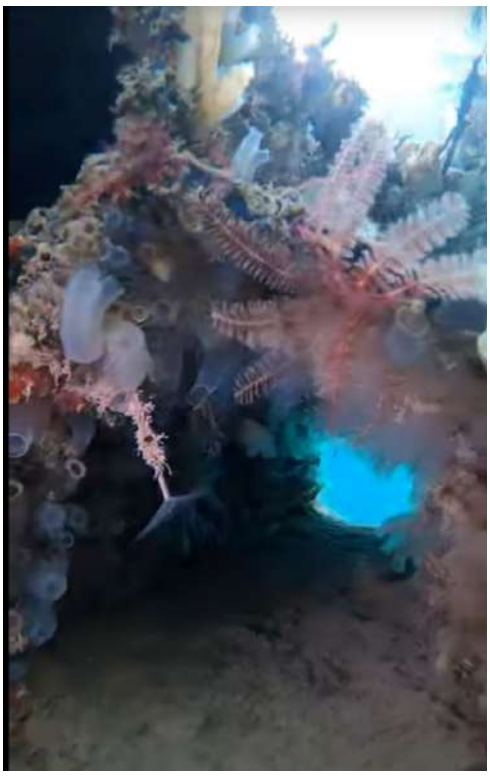


Plate 7.18. Part of a cluster of 'Sea Hives' at the Weymouth and Portland Sailing Academy. Image (screenshot from a video): www.ouronlyworld.org.uk/sea-hives.

'Sea Hives' have been and are being placed especially in marinas. They are designed and manufactured in the UK from recycled fishing nets and bottles to create hexagonal tubes. When several tubes are joined together, they resemble a honeycomb shape.

Ex-HMS *Scylla*, which had been placed on the seabed in Whitsand May in March 2004, continued to show change mainly via a very substantial settlement of Blue Mussel, *Mytilus edulis*, spat. The mussels must have overwhelmed kelps and foliose algae (which were only sparsely present). The reef had established aggregations of Spiny Lobsters and at least one octopus, *Octopus vulgaris*, was photographed on the reef bringing the total number of species recorded from the reef to about 280. See earlier comments on Rosy Feather Stars.

There were no other known substantial artificial structures established in 2025.

StrandingsFigure 7.19. Stranding of, conspicuously, Otter Shells, *Lutraria lutraria*, at Studland Bay. Image: Maria Munn.

There was a washout in Studland Bay on the 26th December 2025, of very large numbers of burrowing species as well as seagrass, *Zostera marina*. Peter Tinsley identifies: *Lutraria lutraria*, *Ensis* sp, *Mactra stultorum, Acanthocardia aculeata, Crepidula fornicata, Buccinum undatum*, *Amphipholis squamata* and lots of *Lanice* tubes. There are several previous records of washouts at Studland.

A few records in early August of single *Janthina* (Violet Sea Snail) at mainland sites (Hayle, Croyde, Constantine) – likely also in the Isles of Scilly. A few records of washed-up Goose Barnacles with one from Westward Ho! in early August that was colonized by Columbus Crabs (Sam Ashton, North Devon Coastwise).

8. Fish

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Conclusions

1. **Fish species doing well and range extensions** The populations of Comber, Blackspot (Red) Bream and the Black Bream are continuing to grow and extend their range; Ballion's Wrasse has been observed nesting from the Plymouth area. The explosion in juvenile – 'bootlace' – Conger Eels continues. Blue Shark and Conger Eels have been recorded feeding on Octopus.

2. **Range Declines and falling populations** Key findings for 2025 include the continued decline in surface sightings of Basking Sharks (three sightings) which have undergone a range shift and another poor year for summer catches of Mackerel.

3. **Rare Fish** Key findings for 2025 include another record of single Sturgeon, a single Halibut, Thor's Scaldfish, Meagre, Two Banded Bream and a single White Bream, Blue Skate and Flapper Skate.

4. **Ecosystem change and regime shift in the South West** Further analysis and research has confirmed that changes to planktonic systems have supported significant changes to fish populations since the 2014-2015 period. Small forage fish Sardine, Anchovy and Sprat are doing well but with large inter-annual changes in the biomass, whilst apex predators like the Atlantic Bluefin Tuna and Blue Shark are doing very well.

5. **Species of Conservation interest** Changes have been documented to key species of conservation interest including Basking Sharks, Shad, Undulate Ray and seahorses. Developments of The Important Shark and Ray Areas (ISRA) initiative from the IUCN Shark Specialist Group delineated nine ISRAs in the south-west has also been described.

6. **Connections to commercial fisheries** Changes have been documented which highlight links to fisheries with commercial species where change is being observed by many different sets of observers. In 2025 observations were made on the local reductions and impact of bottom gear on Ray fisheries, the decline and collapse of a bait fishery for larger specimens of Lesser Sandeel, work being undertaken by citizen scientist on bass populations in the south-west and a record catch of mature Gilthead Bream. Concerns were expressed over the level of gill netting in Cornwall and the impact of Tope and Rays.

7. **Location reports** Reports from specific locations are a new development in this chapter, including highlights Christchurch and Poole Bay, the Scilly Isles, the Solent, Falmouth and Wembury. The way we report such records is challenging and informed by recent Defra mNCEA studies.

8.1 Introduction

The SWME Fish Community of Practice (CoP) was formed in 2023 and was reconvened in November 2025. The main aim of the Fish CoP is to prepare documentation to communicate the annual changes that are taking place in the South West's fish fauna. The objectives of the Fish CoP have been used here to structure this chapter. Researchers studying climate change and fish species are producing a range of predictions on the likely changes that will be taking place in the distribution of fish populations Hastings et al (2020), Maltby et al (2020) and Thompson & Couce,2024. What the SWME Fish CoP are able to do using many interest groups and methodologies is to test the predictions by providing ground truth about the changes that are taking place on an annual basis.

Unless otherwise stated ***all*** the information in this chapter is taken from the 2025 SWME Fish CoP Reference Report.

The information and data sources for this report are *not* held by SWME but by the individual contributors to the Reference Report; their permission should be sought before use. The Reference Report has been used to prepare the 2025 SWME Fish Webinar, Link: https://www.youtube.com/watch?v=L63hLdnAEKg&t=3023s and the SWME conference presentation.

The 2025 Reference Report includes the inputs of over 60 members of the Fish CoP, including over 20+ on the editorial team who have made contributions in line with their specialist knowledge of particular groups. The Reference Report for 2025 has been produced with the input a large number of people from different interest groups including divers, sports anglers, commercial fishermen, environmental NGOs, researchers, users of baited and remote video recordings, telemetry, eDNA as well as observers who have reported novel finds in an *ad hoc* way. The report is a powerful endorsement of the *collaborative* approach to annual reporting using both traditional and citizen science. It is interesting to see how the inputs from the different interest groups using different methods are *independently corroborating* observations on changes e.g. the growth of the conger eel populations.

8.2 Species doing well including range extensions

This objective aims to document the changes in the fish species doing very well or which are new to the south- west and whose populations are becoming established with range extensions and including records of them breeding in south -west waters. Key findings for 2025 include:

Comber *Serranus cabrilla* numbers continue to grow and expand in geographic range now extending from Cornwall to sightings off the Lulworth Banks. Douglas Herdson has tabulated annual sighting since 2003 but since 2024 the number of records has become too numerous to record in this way. (Table 8.1).

Table 8.1. Seasonal distribution of Comber (Douglas Herdson).

Numbers by month (2003 to **2023**)	
Jan	
Feb	
Mar	2
Apr	
May	3
June	7
July	10-12
Aug	4
Sept	8
Oct	2
Nov	1
Dec	
Unknown	
TOTAL	**37 - 39**

Numbers by year (2003 to 2024)	
2003	1
2007	1
2015	1
2019	1
2020	4
2021	3
2022	20
2023	8
2024	LOTS 100's
Total	**40+**

Figure 8.1. Blackspot Bream – Kieran Faisley. Permission granted via Josh Pickett.

Both anglers and divers are reporting widespread records of Blackspot (Red) Bream *Pagellus bogaraveo* shoals in Cornwall and Devon - both juveniles and large adult shoals offshore (Figure 8.1). The return of this species is remarkable because they disappeared from south-west waters in 1983 – 1984 when they were one of most common fish caught by anglers (Simon Thomas).

The expansion of Black Bream (*Spondyliosoma cantharus*), continue beyond its Dorset stronghold especially eastwards to Sussex and Kent (Matt Doggett).

Baillon's Wrasse (*Symphodes baillioni*) has a discontinuous distribution in the South West including southern Ireland. In 2025 there were clear observations of it nesting from the Plymouth area (Olivia Langmead & Paul Naylor)

Conger Eels (*Conger conger*) are a routine part of the south-west fish fauna however, the very high numbers – the 'explosion' since 2023 of juvenile and smaller Conger Eels so-called 'Bootlace Eels' continues (Figure 8.2).

Figure 8.2. Eight Conger Eels in a ship wreckage Kirsty Andrews (Permission given)

The explosion of Common Octopus in 2025 has provided food for Conger Eels and Blue Sharks.

8.3 Range Declines and falling populations

One of the objectives of the reporting process is also to document the changes in fish species whose populations are becoming reduced or showing range declines. Key findings for 2025 include the continued decline of reported surface sightings of Basking Sharks with only three sightings in the south-west down from hundreds a decade ago. This can be attributed as a range shift as there are good sightings of Basking Sharks on the west coast of Ireland. (Harriet Allen).

The trend of very poor numbers of summer Mackerel noted in 2024 has been repeated in 2025. There seems to be a northward shift of the population in the summer; there are reports of Mackerel appearing in the south-west in autumn.

In a similar vein, Sea Trout and Salmon have also had very poor runs in the south coast Devon and Cornwall rivers in 2025. Simon Toms (simon.toms@environment-agency.gov.uk).

8.4 Rare Fish

Routinely through the work of Douglas Herdson and his extensive network of contacts it has been possible to regularly report the occurrence of rare fish species in the south-west in the fish chapters in the SWME Annual Report since 2015. Without exploring the semantics of 'rarity' the rare species that are only occasionally reported in the south-west may well signal an early warning of a significant range expansions. The Comber is a good example of this (Table 8.1) the species was recorded in only small numbers for over a decade but has, since 2024, increased in both numbers and geographic extent based on both angling and diving observations.

Key findings for 2025 include:

Sturgeon (*Acipenser* spp.) – a single large fish caught on 7th May by Michael John Brown [FY368, FV *Majestic*] off Dodman Point, S. Cornwall and was 1.9 m long. It is thought that this is a 10 to 11-year-old *Acipenser sturio.* Steve Colclough srcifm@gmail.com.

Halibut (*Hippoglossus hippoglossus*) In February a small Halibut weighing 2.95 kg was caught near Salcombe, by Mike Johnson. These fish are rare in English coastal waters. [John Sherlock; Torbay Weekly.]

Thor's Scaldfish (*Arnoglossus thori*) Jim Ellis (Cefas) jim.ellis@cefas.gov.uk. Several specimens of this poorly known coastal fish were taken in recent trawl surveys, notably in the Fowey to Falmouth area in 2025. Some fish were deposited in the Natural History Museum and a paper on this species will be published.

Figure 8.3. Meagre, S of Mewstone, Wembury, 3 January 2025, Chris Kelly permission given

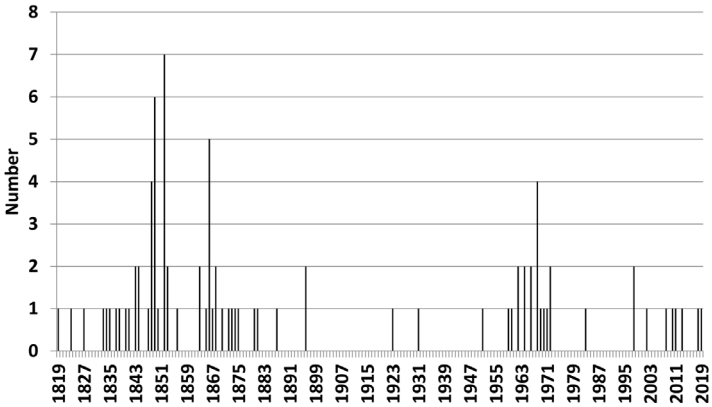

Figure 8.4. Number of Meagre (*Argyrosomus regius*) recorded from NW European waters between1819 and 2019 (N=88). Quigley, *et al* 2021.

Meagre (*Argyrosomus regius*) Douglas Herdson Douglas.Herdson@btinternet.com. One of the outstanding features of 2025 was the sudden occurrence of numbers of Meagre *A. regius* (Figure 8.3). There were at least seven recorded in 2025 – from Penzance to Essex, but mainly off the south coast of Cornwall, with anecdotal reports of more than eight others, including some from the Bristol Channel. There was a further one or more in Cornwall, and one in Ireland in 2026. This is exceptional as normally only the occasional individual is reported, with only nine recorded in Britain and Ireland between 1997 and 2024.

Figure 8.5. A Two-Banded Sea Bream *Diplodus vulgaris*, Elberry Cove, August 2025, Cathy Oetegenn – permission given

Two Banded Bream (*Diplodus vulgaris*) This distinctive species is found commonly in the Mediterranean. It appears that the only one previously found in English waters was caught off Padstow in September 2021, and so these are novel sightings. Nick Jouault swam with a large shoal of juvenile Two Banded Bream off Alderney and Cathy Oetegenn reported two juveniles seen whilst snorkelling at Elberry Cove (Torbay); Douglas Herdson confirmed the identity from images (Figure 8.5).

White Sea Bream *Diplodus sargus*. Douglas Herdson: The White Sea Bream *Diplodus sargus* occurs from North Africa to Brittany and has also established populations in the Channel Islands, mainly Jersey. In March, one was caught by Will Chellingworth an angler from Swanage Beach, Dorset. They are very rare in English waters with all previous records being from Cornwall; where one was caught in September 2009 and two or three more between then and 2020.

Pandora (*Pagellus erythrinus)* A small specimen was captured by Simon Toms in the Helford Estuary in 2025.

Blue Skate (*Dipturus batis)* Harriet Allen: 5 egg cases found in north Cornwall. Simon Thomas: One caught in the Chesil area by an angler.

Flapper Skate (*Dipturus intermedius*) Simon Thomas: One caught five miles off the Lizard by an angler.

8.5 Ecosystem change and regime shift in the south-west

Simon Thomas – Modelling fish populations There is increasing evidence that there has been a significant shift - 'a new normal' - in the marine ecosystems of the south-west which includes a wide range of fish species. Figure 8.6 shows results from analysis of community changes in prey, mesopredator and apex predator species in the South West from 1988 to 2023.

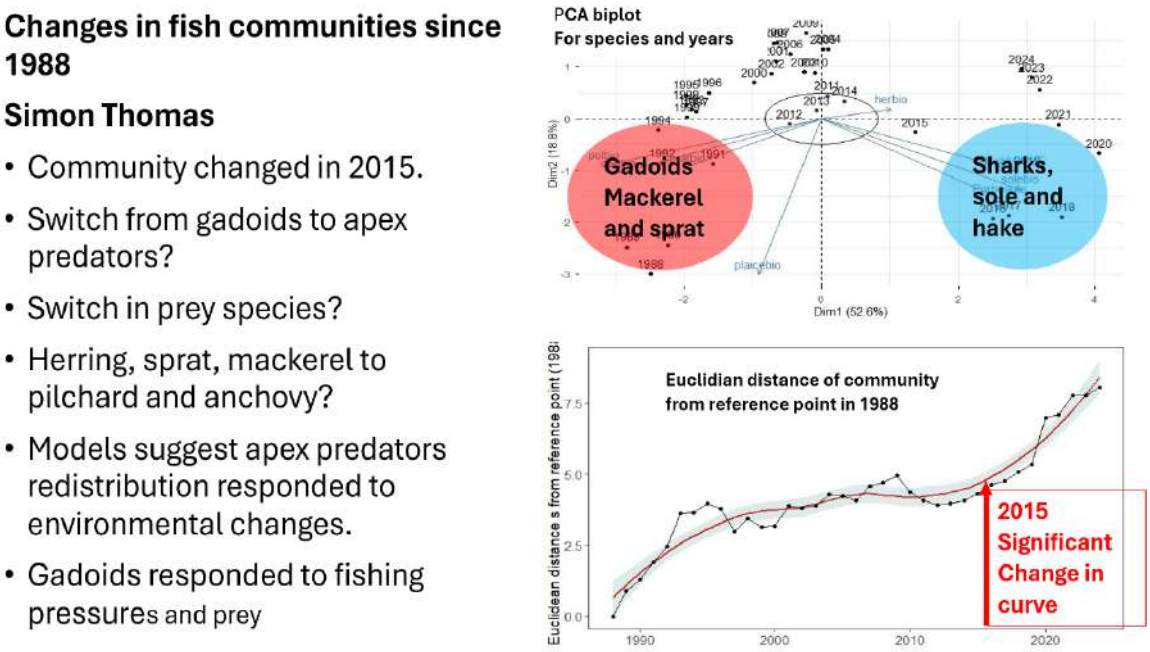

Figure 8.6. Changes in fish communities since 1988 – Simon Thomas A. Convex hull of state space between cod and blue shark populations between two reference time periods (2000-2005 and 2015-2023). B. Euclidian distance of prey species, mesopredators and apex predators from a reference point in 1988. Analysis performed using the IndPerform package in R.

There has been a shift from meso-predators (evidenced by the decline of gadoids Cod, Ling, Pollack and Whiting) to apex predators, notably large numbers of Blue Sharks and Bluefin Tuna. There are also declines in plaice Spawning Stock Biomass (SSB) which occurred during the mid-2010s and a concurrent increase in both sole and hake SSB, although in recent years sole and hake SSB has declined under increased fishing pressure.

Fish populations from plankton sampling and DNA studies

Karen Tait (Tait *et al.*, 2026) highlighted changed in fish populations from plankton sampling and DNA studies. Weekly eDNA samples spanning 2012 – 2022 revealed a major decline in fish diversity, with ~60% fewer species being detected. The biggest losses have been among larger commercially important benthopelagic, demersal and reef-dwelling taxa. At the same time, fast-maturing pelagic species such as Sardine and Anchovy have increased. These changes match a decline in fish egg and larval biomass, suggesting fewer young fish are being produced or surviving. A parallel pelagic biomass size-spectra time series (2008 – 2024) spanning bacteria to fish larvae provided a mechanistic explanation: increasingly steep slopes and declining spectrum elevation show that the marine food web is now supporting far fewer small fish that it used to – around 50% less. This appears to be linked to reduced nutrient supply in summer, which limits how much life the plankton community can support.

The PELTIC pelagic survey Highlights – Jeroen van der Kooij – Cefas jeroen.vanderkooij@cefas.gov.uk

Headlines of the 2025 Peltic survey include:

- Sardine (*Sardina pilchardus*), Sprat and Anchovy biomass annually recorded and submitted to ICES for advice

- Sardine and Anchovy (*Engraulis encrasicolus)* are expanding in range and show overall increase in biomass over last decade.
- In 2025, biomass increased from 2024 for the three main species: Sardine biomass was at more than half a million tonnes, the highest in time series (since 2013); Anchovy and Sprat biomass estimates were the second highest in the time series.
- Sprat size in Lyme Bay remains small as observed in the last few years, largely driven by an absence of fish older than 2 years.
- All three species show interannual biomass fluctuations with occasional 'spike' or drop
- Increased understanding of ecology and distribution, especially for Sardine and Anchovy stocks
- Anchovy northward range expansion due to different processes:
- Other species, such as Herring, Horse Mackerel (Scad) and Boarfish are also recorded and quantified but their distribution is only partially captured.
- Systematic sightings of Atlantic Bluefin Tuna recorded by observers capturing their return in 2014; also rarer pelagic species.
- A Report of the 2025 Peltic Cruise can be found at https://swmecosystems.co.uk/annual-reports - in Fish Reports 2025

Apex Predators - Sharks

The 2025 Reference Report describes the catches by sports anglers of three main species of large shark. Porbeagle and Thresher Sharks were recorded less commonly in 2025 but in line with the numbers of recent years; Mako Sharks continue to be reported but in very low numbers.

Blue Shark *(Prionace glauca*) – Simon Thomas

There were 1115 Blue Sharks caught and released from Looe in 2025, although numbers decreased in the middle of summer. Murray Collings (*Swallow 2*, Looe) released 58 Blue Sharks on one day in early October, a new port record.

There were fewer large Blue Sharks seen during 2025 than in previous years, with 85 sharks above 70 inches recorded from Looe, compared to 104 in 2024. It is noted that 70 inches is approximately equivalent to size at maturity for the species. As for the last 10 years, many female sharks were seen with fresh bite marks indicating mating behaviour and the presence of mature males. In addition, over 40 year-zero Blue Sharks were reported and analysis of the umbilical scars from photographs by Michelle Passerotti (NOAA apex predator program) indicated that these fish were likely only 2-4 weeks old. There was evidence that Blue Sharks were feeding on Common Octopus during the summer as many sharks had *Octopus* sucker marks present.

Atlantic Bluefin Tuna (*Thunnus thynnus*) Tom Horton T.Horton@exeter.ac.uk & Sophy Phillips sophy.phillips@cefas.gov.uk & Steve Murphy

The recovery of Atlantic Bluefin Tuna (ABT) is ongoing story which has led to considerable interest in the specialist and wider community both locally and nationally.

Quota In 2025, the United Kingdom was allocated a total of 66.15 tonnes of Atlantic Bluefin Tuna quota by the International Commission for the Conservation of Atlantic Tunas (ICCAT). This quota was distributed as follows: Commercial Fishery: 45 tonnes were designated for a trial commercial fishery. Recreational Permitting Schemes: 13 tonnes were allocated to support catch-and-release recreational fishing programs. Bycatch and Tagging Programs: The remaining quota was reserved for bycatch allowances (7.15 t) and scientific research and tagging initiatives (1 t).

For more information see the DEFRA website. This quota did not extend to the devolved administrations of the Channel Islands.

Management The Marine Management Organisation (MMO) manage and permit recreational sea anglers to monitor both fisheries and the catch and release the statistics. 2025 data have been released (~140 licences issued and >2600 captures reported): Bluefin Tuna Catch and Release Recreational Fishery (CRRF) 2025 - GOV.UK.

Feeding the Comeback is a new scientific project, led by Tom Horton at the University of Exeter and supported by the Devon Environment Foundation, Cornwall Council, and the Fishmongers Company amongst others focused on studying the diet of returning Atlantic Bluefin Tuna to ensure their long-term recovery by understanding their prey and informing sustainable management, with strong community and fisher involvement. The initiative highlights the tuna's spectacular return to UK waters after decades and aims to balance fishing with conservation by educating the public and policymakers on ecosystem health. Approximately 100 Atlantic Bluefin Tuna stomachs were sampled by collaborating with the commercial fishery and the MMO in the 2025 season. Results are expected to be shared in the Spring of 2026.

Sightings

These sightings come from differing observers covering, research, behaviour, feeding and timing.

- Peltic: ABTs co-feeding with Cory's and Great Shearwaters now commonplace – huge increases in these birds associated with the tuna.
- There were lots of sightings on ABTs very near the short from Cornwall to Dorset and the Channel Isles.
- Behaviour – daily vertical migrations Jess Rudd *et al.* (2025 - link). This study used high and low-resolution accelerometer tags deployed on Atlantic Bluefin Tuna in the English Channel to quantify both immediate and longer-term behavioural responses to capture and tagging. Longer deployments showed that normal behaviour includes strong diel vertical migration and daytime-biased activity in summer.

8.6 Species of Conservation interest

One objective of the Fish CoP reporting process is to document changes of key species which are of conservation interest because of their designated status. Key points in 2025 include:

ISRA's (Important Shark and Ray Areas) - Harriet Allen & Sophy Phillips

The Important Shark and Ray (ISRA) project is an initiative of the IUCN Shark Specialist Group (SSG). ISRAs are 'discrete, three-dimensional portions of habitat, important for one or more shark species, which are delineated and have the potential to be managed for conservation'. The selection of ISRAs is based on criteria including vulnerability, ecology, life-history traits, distinctiveness and areas of high diversity. In the European Atlantic region, 124 ISRAs were delineated. Of these, nine fall within the South West region and were designated for species including Starry Smooth-hound, Common Blue Skate, Nursehound (Bullhuss), Undulate Ray, Small-Eyed Ray and Small Spotted Catshark (Lesser-Spotted Dogfish). A further two transboundary ISRAs run through the south-west region for highly migratory species such as Porbeagle Shark, Basking Shark, Tope and Starry Smooth-hound.

Basking Sharks The Basking Shark is a protected species and although the surface *sightings* in the South West have declined to a recent low – three, they seem to have undergone a range shift northwards and are now commonly seen off the west coast of Ireland. Their principal food source, calanoid copepods, have also undergone a massive population decline at the Plymouth monitoring stations.

Undulate Ray (*Raja undulata*) Martin & Sheilah Openshaw Martin@stardis.co.uk, Matt Doggett

The ISRA (Important Shark and Ray Area) for Undulate Ray in Kimmeridge Bay was based on the citizen science data from The Undulate Ray Project. SeaLife and the IUCN SSC Shark Specialist Group. There is also an initiative underway

led by SeaLIFE and supported by the IUCN Conservation Planning Specialist Group to produce a strategy for Undulate Ray in British and Irish waters with the aim of maintaining sustainable populations underpinned by a robust science.

Seahorses Neil Garrick-Maidment theseahorsetrust@gmail.com

There have been seahorses in the UK for centuries, however, the setting up of the National Seahorse Survey and its database, the National (now World) Seahorse Database by The Seahorse Trust in 1994 has led to a massive increase in records (over 3,500 for the UK) over the last few decades. There are two species of Seahorse found in the UK and the habitat preferences of the two species are well known and the numbers of observations for 2025 have been at broadly the same level as for 2024. Photographic evidence of the predation of juvenile Seahorses by Black Bream has been reported again.

Shad The Shad Forum - Westcountry Rivers Trust https://wrt.org.uk/

Westcountry Rivers Trust (WRT) recently hosted the second annual Shad Forum in partnership with Natural England and South West Water in 2025. This event brought together stakeholders across fisheries science and conservation to share updates on various projects. Shad are members of the Herring family and the UK has two native species, the Twaite Shad and the Allis Shad. Considerable further work is underway.

8.7 Connections to commercial fisheries

Observations by SWME Fish CoP members also document changes and links to fisheries with commercial species. It is worth pointing out that from the first observations it took at least five years with Atlantic Bluefin Tuna before there were sufficient data to attempt to set quota and manage the fishery. Species of fishery interest have already been covered in this report with regard to the forage fish in the Peltic survey, others. This section highlights a number of points that reflect upon the commercial fisheries in the south-west.

Interactions of fisheries with Skates and Rays highlighted including bottom trawling and tangle netting

The dramatic decline since 2015 of the Undulate Ray population in Dorset, also extends to Poole and Christchurch. This decline recorded by both divers and anglers seems to be function of the changed management status of Undulate Rays and inshore trawling. At a wider scale the use tangle nets for Spiny Lobsters in Cornwall seems to be having an impact on Ray fisheries.

The decline of larger animals in Lesser Sandeels (*Ammodytes tobianus)* and failure of angling bait fishery

Simon Toms An interesting and significant decline in larger Lesser Sandeel has led to the decline and closure of fishery by Cornish bait providers since the last 2020s. The fishery was sustainable for many years using nets that didn't impact the seabed and it seems that the decline could be another element of the story of regime shift in the south-west. Premier baits have kindly provided details of the numbers of frozen sandeels packeted for a number of years since 2013. In each year approximately 50 to 60 netting trips were undertaken each year. The catch of Lesser Sandeel captured using a rowing boat and beach seine net from beaches predominantly on the south Cornish coast is shown in Table 8.2.

Table 8.2. The number of sandeel bait packets produced.

Year	Number of sandeel "packets" produced	Year	Number of sandeel "packets" produced
2013	45,495	2022	9,886
2016	44,586	2023	3,561
2020	20,621	2025	200

The owner of Premier baits noted that from around 2022, the Lesser Sandeel population inshore has progressively become dominated almost entirely by very small Lesser Sandeel with few larger sandeels present making the fishing operation no longer worthwhile. They had been fishing for sandeels for many years before establishing the business and had never observed any reduction in larger sandeels until approximately 2019.

Bass (*Dicentrarchus labrax*) Robin Bradley bradley4ne@btinternet.com

Bass are an important commercial species and the information reported here by several Bass citizen science groups is now being used in ICES stock assessments. The Cornwall Bass Investigations Group has made a short film about its juvenile Bass survey work on the Fal and Helford estuaries. This can be viewed via the following link https://youtu.be/oAotfsDQLsA The Cornwall Bass Investigations Group completed 28 surveys on the Fal and 14 on the Helford, involving a total of 155 volunteer days. In total an estimated 47,424 animals from 28 species were netted, of which 2,537 were measured. Total bass catches were 2,651 '0' group, 1,408 '1' group and 37 '2' group on the Fal. The corresponding figures for the Helford were 88, 42 and 2 respectively. This is information is building into an invaluable times series (Figure 8.7) which also illustrates an increase in numbers after the 2013-2014 period

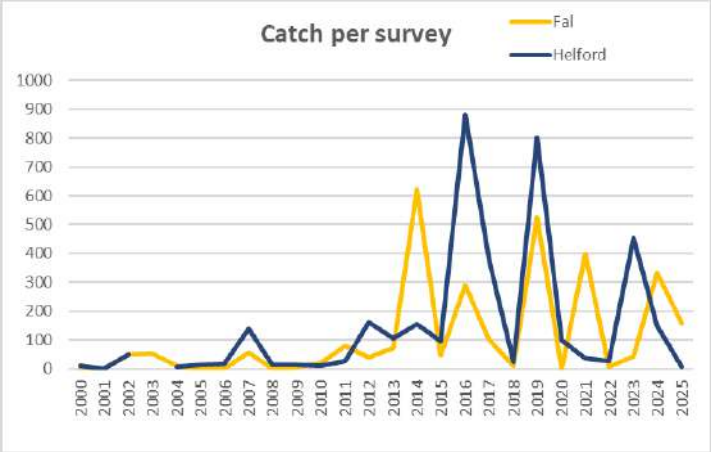

Figure 8.7. Bass '0' group Catch Per Survey on the Fal and Helford estuaries from 2000

BASS Catch Recording Scheme 2025 – Key Performance Indicators (KPI) – report published end of Feb 2026 covers 2021-2025. Details of the Bass Anglers Catch Recording Scheme which I run can be found **here,** with key data available from here. Robin Bradley RB bradley4ne@btinternet.com

Data are available on Key Performance Indicators from scheme participants fishing in areas with commercial Bass fisheries (UK & Channel Islands) for 2025 and the preceding four years of the scheme (where available). Key Performance Indicators from scheme participants fishing in areas with commercial bass fisheries (UK & Channel Islands) for 2024 and the preceding 3 years are available as a pdf download: BASS KPI Data 2024

The 2025 data are available here: BASS KPI Data 2025.

'The Gilthead Bream Wonder Catch' – January 2026

Olivia Langmead The Brixham Fish market posted on Facebook (20/01/26) that one vessel landed 100+ boxes (3.2 tonnes) of mature Gilthead Bream which fetched £108K. They remarked that they "don't often (if ever!) see wild Gilthead Bream in these quantities making a haul of this scale truly spectacular." To put this catch in context, Gilthead landings in 2025 for the whole UK were 6.9 tonnes so this was a huge catch. Devon & Severn IFCA investigated the catch and it was taken in Lyme Bay and not within an estuary. However, it does seem likely that the fish were aggregating for spawning; such a catch must have damaged the stocks. This example shows the importance of taking part in the consultation exercise https://consult.defra.gov.uk/fisheries-management-plans-1/copy-of-consultation-on-the-proposed-seabream-fish/.

8.8 Events

In the past, events which involve fish species have been documented. For example, in 2024, there was a widespread Sardine wreck across a large area of Cornwall. There do not appear to have been any significant 'events' in 2025.

8.9 Location reports

A new element in our observations for 2025 has been to document studies which look at a wide range of fish species at specific locations. Locations covered include Christchurch and Poole Bay, the Scilly Isles, the Solent, Falmouth and Wembury. These location reports put these fish records in a wide spatial, ecological and societal context. These studies parallel in many ways those adopted in ornithology where citizen scientists document the species they find on an annual basis. The methods used for these studies vary considerably, and studies of different methods was the subject of recent Defra mNCEA studies.

Poole Bay and Christchurch Bay - Mal Thomas Poole Bay Small Boat Angling Club mal@castlemoreltd.co.uk

This angling club keeps systematic records of the fish they catch and have catch data spanning over 30 years. Using these data they are able to report long terms trends (Figure 8.8) in species like the reductions in Mackerel and Cod. They have also been able to highlight the impact of inshore trawling by a single vessel that has dramatically reduced the catches of Flounder, Undulate Ray and Sole.

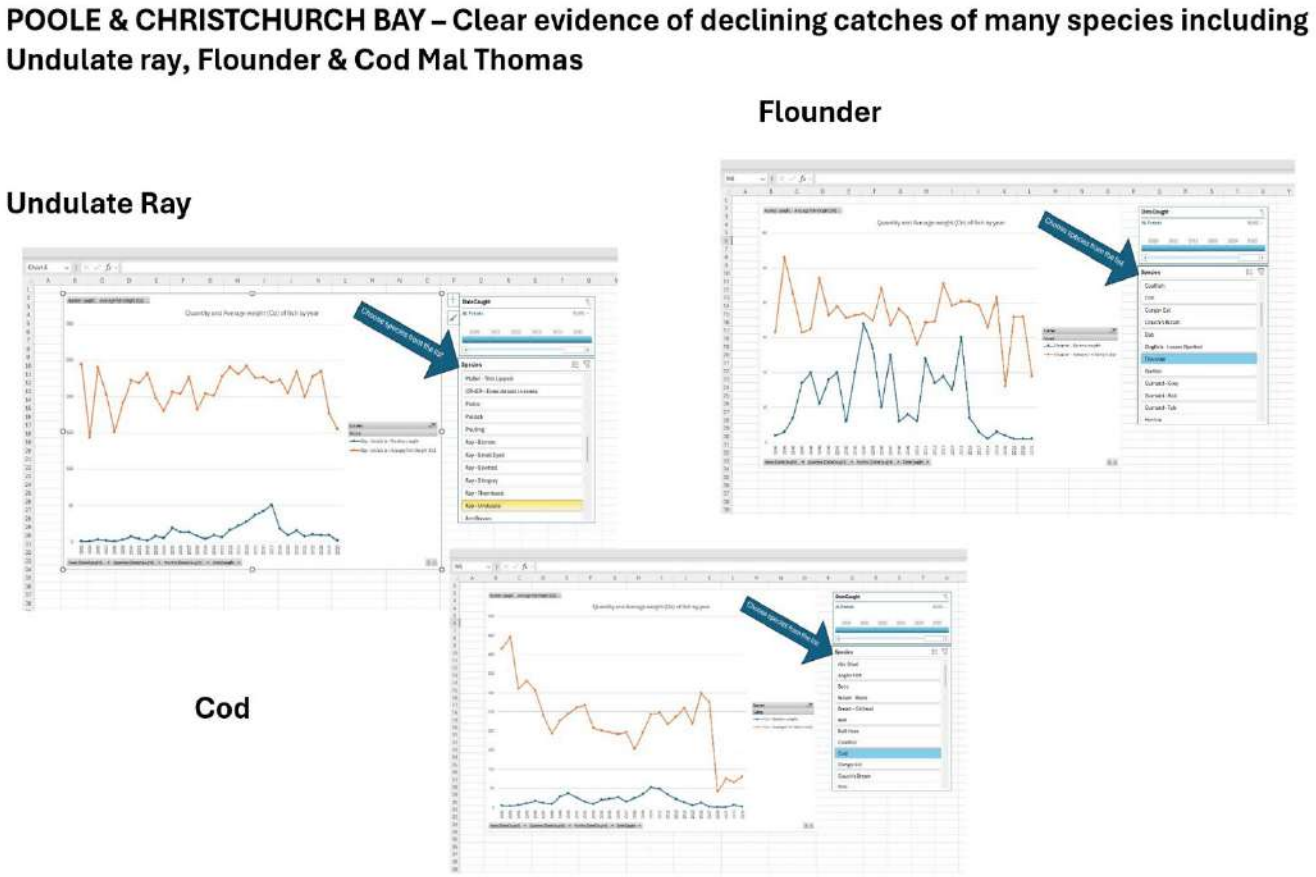

Figure 8.8. Catches of Undulate Ray, Flounder and Cod – Blue line numbers caught – Orange line average weight.

Scilly Isles Fish Report - Exeter University - Owen Exeter o.exeter@exeter.ac.uk
A study conducted by the University of Exeter and published in 2025 aimed to comprehensively survey the Isles of Scilly and surrounding shallow reefs to quantify fish and mobile benthic assemblages using stereo baited remote underwater video (stereo-BRUV) systems. Across 280 successful stereo-BRUV deployments, the survey recorded 11,950 individuals representing 64 species, with demersal fishes dominating the dataset (~6,743 individuals). Survey locations were spatially balanced across habitats throughout the archipelago to depths of 40 m during the summer months (late May–September) of 2022 and 2023. This study represents one of the largest and most spatially comprehensive stereo-BRUV surveys conducted in English waters to date. Overall, the findings demonstrate that stereo-BRUV surveys can provide robust, repeatable benchmarks for spatially assessing fish assemblages and

biomass in temperate UK waters and highlights the ecological importance of the Isles of Scilly as a regional biodiversity hotspot for a variety of fish species.

Full publication available open access here: https://doi.org/10.1002/eap.70104.

Teleost fishes accounted for the majority of fish species richness (41 species). The survey showed that deeper, topographically complex circalittoral reefs to the west of the archipelago (e.g. around Bishop Rock) and at Seven Stones Reef supported higher fish species richness, diversity, and biomass than shallower reefs and sediment habitats. Depth and structural complexity were the strongest predictors of fish richness and biomass, highlighting the importance of complex reef habitats within local MPAs. Several commercially and conservation-relevant species were recorded at regionally high frequencies, including Pollack (*Pollachius pollachius*), Small-Spotted Catshark (*Scyliorhinus canicula*), Nursehound (*Scyliorhinus stellaris*), and European Spiny Lobster (*Palinurus elephas*), with Wrasse (*Labridae*) notably also abundant, occurring in over 75% of deployments.

Owen M. Exeter, Annette C. Broderick, Xavier A. Harrison, Francesco Garzon, Sarah Morcom, Ricky Pender, Trudy Russell, Ian Saunders, Paul J. Somerfield, Kate Sugar, Colin Trundle, Julie Webber, Tom Hooper, Kristian Metcalfe

First published: 12 September 2025 Ecological Applications: https://doi.org/10.1002/eap.70104.

The results of the above study also informed the designation of the Isles of Scilly as an IUCN Important Shark and Ray Area (ISRA) in 2025, primarily for Small-Spotted Catshark (*S. canicula*), with Nursehound (*S. stellaris*), Porbeagle (*Lamna nasus*), and Blue Shark (*Prionace glauca*) listed as supporting species. The blog for this survey, which includes the YouTube recording of the talk as well as a write-up of the Q&A and any useful links that were shared during the live event, has now been published: https://biologicalrecording.co.uk/2026/03/10/exploring-underwater-scilly/

Douglas Herdson – Articles on the Marine Fish of the Isles of Scilly.

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Herdson, D. (2010). *Isles of Scilly Fish and Fisheries. Isles of Scilly Marine Biodiversity Project*. 59p

Solent Inshore Fish Survey – Zoe Morrall (zoe.morrall@noc.ac.uk)

Spatio-temporal assessment of nearshore fish communities in a temperate estuary using functional and community metrics for restoration and management.

A recent published paper (https://lnkd.in/euUYTucQ) using 12 years of biannual survey data (2007–2018) from the Solent's estuarine nearshore zones, examines changes in fish community composition, abundance, species richness, and estuarine dependency. The results show clear spatial and seasonal variability and a significant long-term decline in abundance. Using Fish Estuarine Association Scores (FEAS), we identified areas that support species more reliant on estuarine environments which offer a practical way to set ecological baselines and prioritise restoration in real-world monitoring contexts. This work demonstrates the power of long-term, multi-site monitoring and highlights how trait-based approaches like FEAS can support ecological baselining and practical restoration planning.

Falmouth Observations – Josh Pickett thebichirhandbook@gmail.com

Observations were made using snorkelling and conventional and light tackle angling. Notes on observations and abundance of 30+ species in the vicinity of Falmouth were presented using a SACFOR scale. The intention is to revisit this table annually to catalogue species changes. Many of the species listed are of conservation and commercial fisheries interests. The scale used has prompted a wider discussion of how we might use the abundance scale approach more routinely. The scale is interpreted as:
S - Superabundant: The species is present in extremely high numbers.
A - Abundant: The species is present in large numbers.
C - Common: The species is frequently encountered.
F - Frequent: The species is encountered regularly, but not in high numbers.

O - Occasional: The species is found from time to time.
R - Rare: Only a few individuals of the species are found.

Wembury Observations – Jake Taylor Bruce jtaylorbruce@devonwildlifetrust.org

In working at the Wembury marine conservation areas Jake Taylor-Bruce of the Devon Wildlife Trust has made regular observations of the area by rockpooling and snorkelling studies which have described the fish fauna of this important site including many observations on how they use this environment for shelter and breeding.

Inshore Evidence: Bringing new techniques and natural capital approaches into long-term evidence collection (mNCEA year 2) - ME4519

In 2022, Natural England trialled video and diver-based, visual census techniques for inshore fish populations with a primary focus on south-west England. Initially the project was funded by Defra as part of the marine Natural Capital and Ecosystem Assessment (NCEA) programme which led the Government ambition to integrate natural capital approaches into decision-making for the marine environment. Various trials were undertaken over both kelp and seagrass habitats which looked at the differences in data collected between transect surveys, fixed-point observations, unbaited video footage and eDNA techniques. In subsequent years, the methods have been employed over seagrass, kelp and maerl habitats at sites in Dorset, Devon and Cornwall and have been used in Natural England's wider SAC monitoring surveys. Natural England holds the data from these surveys. A set of interesting reports published in 2025 can be found here https://publications.naturalengland.org.uk/file/6703751331840000

8.10 References

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Tait, K., Mynott, S., Parry, H., McEvoy, A., Beesley, A., Sims, D. W., Kaloudis, D., Biggs, T. & Atkinson, A. (2026) Monitoring with eDNA and size spectra reveals an abrupt dominance shift within a fish assemblage. *Nat. Commun.* (2026, submitted).

Thompson & Couce,2024 Predictions arising from climate change on the composition of the fish fauna suggests that there will be significant changes

9. Turtles

Douglas Herdson (douglas.herdson@btinternet.com **) and Rod Penrose**

Conclusions

- The number of turtles reported in 2025 was about the average for the region.
- There were about equal numbers of hardshell turtles and leatherbacks.

Report

An average number of marine turtles were reported in 2025 (Table 9.1). A total of 61 were seen in British and Irish waters, with 12 in the greater south-west region. Of these, eight were found around Cornwall, two in Devon, two from Dorset, with none sighted around the Isles of Scilly or the Channel Islands (Table 9.2). The south-west turtles consisted of nine reports of a probable six Leatherback Turtles (*Dermochelys coriacea*), of which five were swimming and one found dead; four Loggerheads (*Caretta caretta*), two swimming alive and two dead on the beach; one Kemp's Ridley (*Lepidochelys kempii*) dead on the shore; and finally, one unidentified alive and swimming. The year was more usual in having a similar number of reports of 'hardshell' (all marine turtles other than Leatherbacks), to definite Leatherbacks. This proportion is in contrast to 2023 with most being hardshells. It is probable that the majority of 'hardshells' were juveniles being stranded in the colder months of the year and were cold-shocked. 2025 was exceptional for Britain and Ireland in the number of Loggerheads. 34 were recorded mainly in Ireland and Scotland, this is one of the highest annual counts of this species reported.

Table 9.1. Turtles reported in south-west England in 2025.

Date	Record No.	Species	Location	Status	Comments
23/02/2025	T2025/04	Kemp's Ridley	Hoodny Cove, Portwrinkle	Dead Stranded	Reported with photographs but a subsequent search failed to find it.
01/03/2025	T2025/07	Loggerhead	Talland Bay	Dead Stranded	Carcass moved to deep pool by the finder. NHM
31/05/2025	T2025/08	Unidentified	3 miles east- south-east from Weymouth Harbour entrance.	Alive, Swimming	Andrew Routh
17/05/2025	T2025/ ?	Leatherback	St Austell Bay, Charlestown	Alive, Swimming	Cornwall WT
19/05/2025	T2025/ ?	Leatherback	St Austell Bay, Polkerris	Alive, Swimming	Cornwall WT
18/06/2025	T2025/10	Leatherback	Branscombe, Devon	Alive, Swimming	Video by Petra Threlfall. Mike Threlfal
19/06/2025	T2025/11	Leatherback	Seaton, Devon	Alive, Swimming	Dave Gardener. Possibly T2025/10.
27/06/2025	T2025/14 T2025/15	Leatherback	off Rumps Point south of The Mouls, Padstow.	Alive, Swimming	Observed from the Old Coastguard, Mousehole. G J Simmonds

3/07/2025	T2025/13	Leatherback	Mousehole, Cornwall	Alive, Swimming	Joshua Nawras
13/08/2025	T2025/21	Leatherback	Off Stoke, Devon	Alive, Swimming	Sighted 5metres from boat 600 metres from shore. Richard Holman
28/08/2025	T2025/25	Leatherback	Off Porthleven	At sea dead	1.5 miles straight out from Porthleven. Dead carcass disentangled from pot rope by fisherman. Anthea
3/09/2025	T2025/26	Leatherback	Porthleven	Dead Stranded	Headless carcass on beach. (One was reported dead entangled a week earlier by a fisherman just off Porthleven so it was assumed it was same one. Highly likely T2025/25.) Anthea
2/11/2025	T2025/36	Loggerhead	The Island, St Ives	Alive, Swimming	CWT Seaquest survey. Dan Jarvis BDMLR
7/12/2025	T2025/41	Loggerhead	400 metres off Pendeen Point.	Alive, Swimming	Seen through binoculars. Pete Combridge
20/12/2025	T2025/48	Loggerhead	Bournemouth	Stranded dead	

Table 9.2. Occurrence of Turtles 2017 to 2025

	South-west England			Britain and Ireland		
	Leatherback	Other and unidentified*	Total	Leatherback	Other and unidentified*	Total
2025	6	6	12 (or 15)	20	41[2]	61
2024	7	7	14	12	25	37
2023	6	16[1]	22	13	34[1]	47
2022	3	4	7	8	7	15
2021	3	5	8	19	14	33
2020	4	1	5	9	5	14
2019	13	1	14	13	5	18
2018	17/18	2	19/20	17	2	19
2017	8	5	13	28	9	37

*Many unidentified turtles were probably Leatherbacks [1] All 'hardshell'. [2] 34 Loggerheads

Information from:

BDMLR - British Divers Marine Life Rescue

ERCCIS – Environment Record Centre for Cornwall and the Isles of Scilly

IoSBNHR – Isles of Scilly Birds and Natural History Review

MCS – Marine Conservation Society

MSN – Cornwall Wildlife Trust, Marine Strandings Network

BIMTR - British & Irish Marine Turtle Strandings & Sightings

NHM - Natural History Museum

10. Marine and Coastal Birds South-West

Editor **Alex Banks** (alexnbanks@gmail.com)

With contributions from Tom Brereton, Richard Caldow, Mark Darlaston, Chris Dee, Chris Goding, Mark Grantham, Tim Guilford, Ryan Irvine, Paul Morton, Hester Odgers, Simon Parker, Ruth Porter, Paul St Pierre, Emily Rush, Sabiya Sheikh and Charlie Wheeler

Conclusions

- A good year for terns, with healthy numbers and reasonable productivity of Sandwich, little and common terns in Dorset, as well as the second successive year of common tern nesting in the Isles of Scilly offering some hope of a lasting return to the islands.
- Healthy numbers of puffins, guillemots and razorbills where counted, though some novel productivity monitoring in Cornwall suggested few chicks may be fledging from these coastal colonies.
- A familiar mixed picture for gulls in the region, with some kittiwake colonies recording increases, others decline. Black-headed gulls continue to decline in Poole Harbour.
- Fewer data available from pelagic cruises around the Isles of Scilly, but still impressive numbers of southerly breeders from land, such as the 53,000 great shearwaters estimated off the Lizard in September 2025 and approx. 3,000 Balearic shearwaters in Lyme Bay in July.
- MARINELife recorded their first Wilson's storm-petrel in Lyme Bay in 20 years of surveying.

Introduction

Regular seabird productivity monitoring continued at the Isles of Scilly; Lundy and Straight Point (Devon); Looe and Mullion Islands, Trewavas Head, Porthmissen and Portreath (Cornwall); and Brownsea Island, Lodmoor, Abbotsbury and Chesil Beach (Dorset). Abundance monitoring also took place at Berry Head (Devon) and the Purbeck Cliffs (Dorset), as well as various smaller coastal areas in Devon and Cornwall.

In the non-breeding season, the long-running Wetland Bird Survey 'Core Count' scheme surveying birds mainly at roost on high tides, continued to cover the majority of important estuarine and coastal sites in the south-west. In winter 2024/25, Poole Harbour and the Kingsbridge, Fowey, Helford and Hayle Estuaries were surveyed at low tide.

The Winter Gull Survey (WinGS) also concluded in winter 2024/25, with reporting here: https://www.bto.org/our-work/science/publications/reports/bto-research-reports/00807-winter-gull-survey-2023-2025

At sea, observational data were collected as part of long-running programmes or schemes, including various vessel routes covered by the charity MARINELife, such as the Cefas 'Peltic' October research cruise around the south-west peninsula.

Miniaturised recording devices ('tags') were fitted to various species to reveal new insights about movement behaviour.

Nesting seabirds

Manx shearwaters

Key breeding colonies: Lundy, Isles of Scilly.

With no full island counts in 2025, the data available were from the ongoing monitoring on St Agnes & Gugh, Isles of Scilly (Figure 9.1). As discussed in the 2024 SWME report, the 2024 estimate is likely to be a methodological artefact and the population continues to increase. It seems this is largely driven by the Gugh sub-colonies.

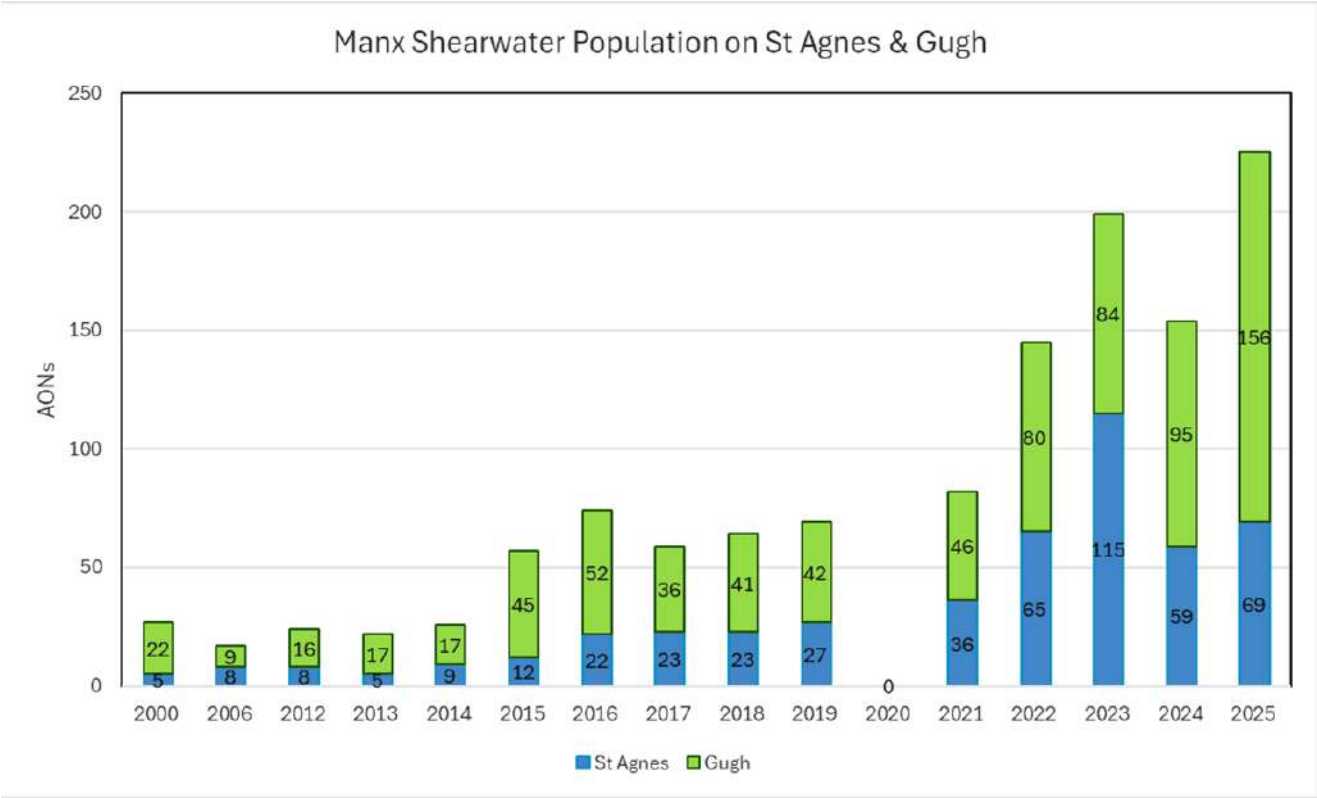
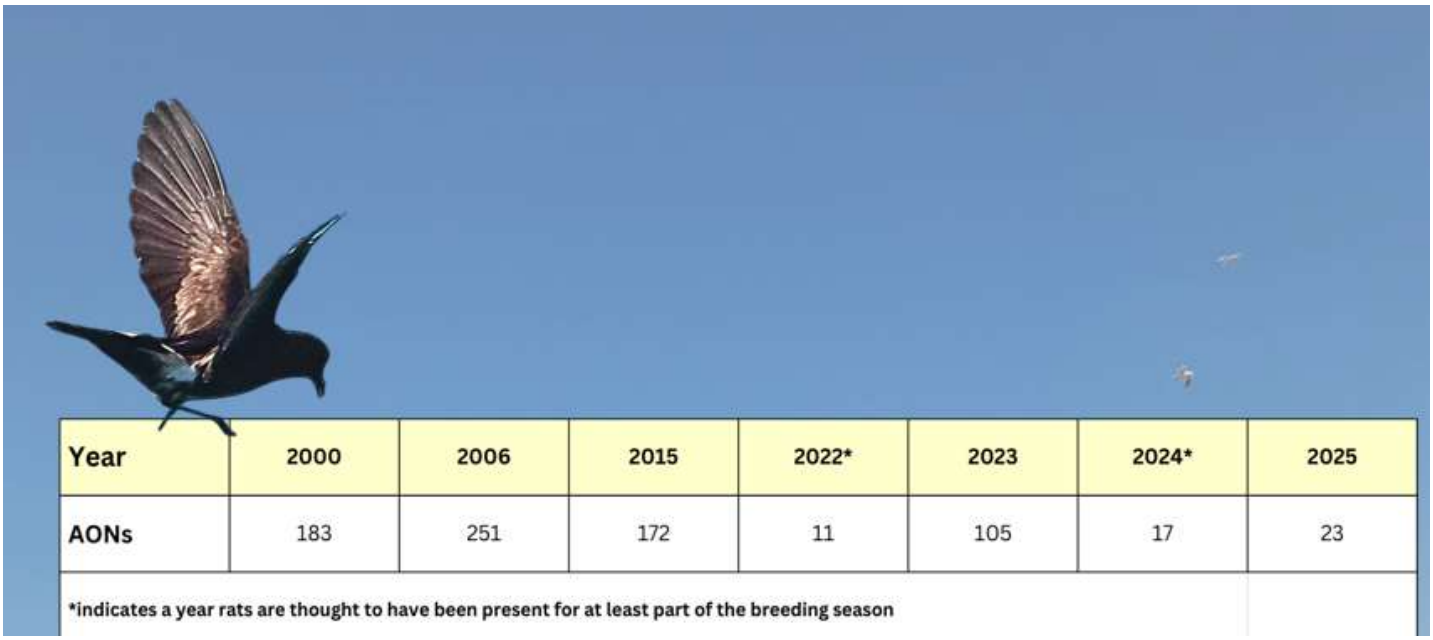


Figure 9.1. Manx shearwater Apparently Occupied Burrows, St Agnes & Gugh.

<u>European storm petrels</u>

Key breeding colonies: Lundy, Isles of Scilly.

Round Island (Isles of Scilly) is monitored regularly by the Isles of Scilly Wildlife Trust. Following rat incursions in 2022 and 2024, there were signs of the storm petrel population beginning to recover in 2025 – further decline or abandonment may have resulted without an incursion response – but it was not possible to check for rat presence in winter 2025, and so future abundance estimates will demonstrate the ongoing extent of the problem.



Year	2000	2006	2015	2022*	2023	2024*	2025
AONs	183	251	172	11	105	17	23

*indicates a year rats are thought to have been present for at least part of the breeding season

Figure 9.2. European storm petrel numbers on Round Island, Isles of Scilly.

No data were received from Lundy, which will be surveyed in full in 2027.

Auks – guillemot, razorbill, puffin

Key colonies: Lundy, Isles of Scilly, Berry Head, West Exmoor Coast, Purbeck Cliffs

Guillemots

In 2025, scientists from GoBe Consultants were able to visit 12 infrequently visited sites around the coasts of Cornwall. Abundance trends at the majority of these sites were upward, matching patterns seen in other more regularly watched colonies (Figure 9.3).

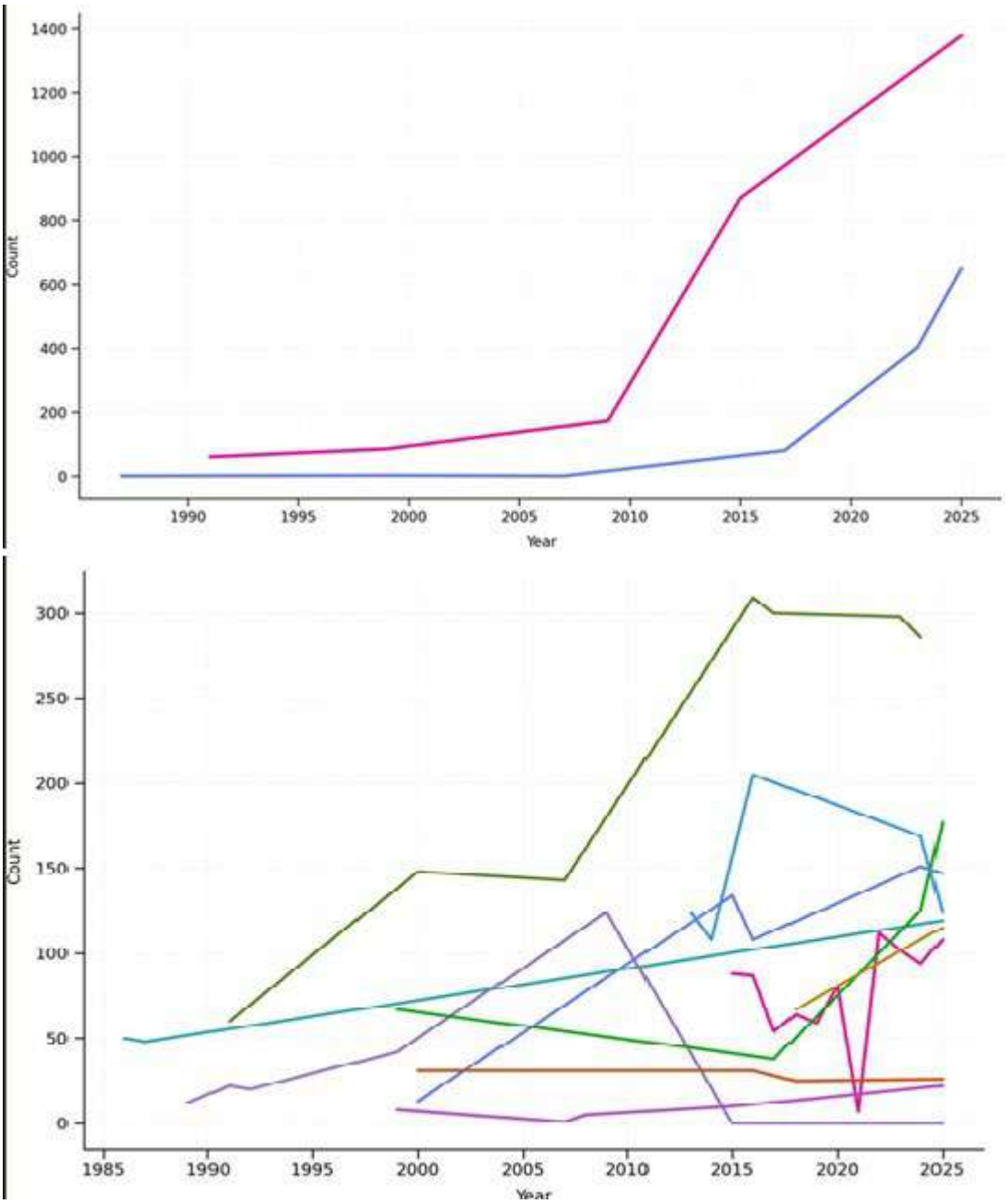


Figure 9.3. Trends in guillemot abundance at 12 Cornish breeding colonies. Armed Knight and The Sisters shown on expanded x axis due to larger scale.

Being cliff-nesters, the Seabird Monitoring Programme tends not to receive huge amounts of data on breeding success for guillemots, except where ledges are clearly visible from cliff-tops. Data collected by GoBe suggests that despite these abundance increases, productivity at these colonies may be poor; no chicks were recorded on the sea, and values between 0.01 – 0.31 chicks per pair were recorded. (Accessibility and frequency of visits possible may be

factors; estimates of breeding success can vary substantially over relatively short time periods, which can be an issue where sampling is necessarily limited).

Elsewhere, abundance increases continued at Lundy (12,202 individuals estimated: Figure 9.4); broad stability was likely at Berry Head, although some methodological issues may have contributed to a lower count than in recent years (774 individuals); and, despite fluctuations in recent years, the 1,377 birds estimated on the Purbeck Coast was the third highest value since the 1960s.

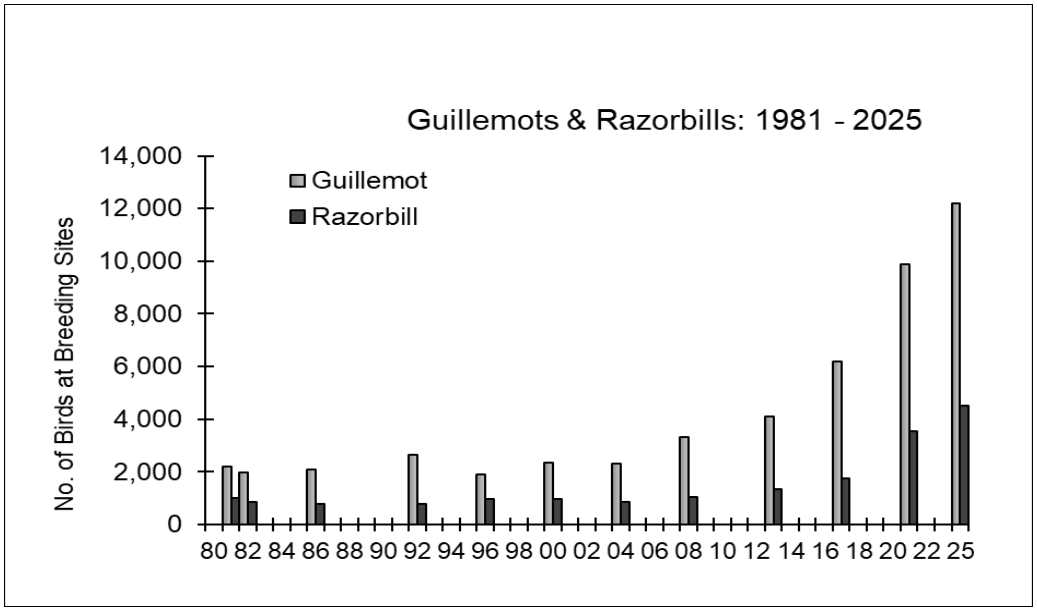


Figure 9.4. Trends in guillemot and razorbill abundance at Lundy.

Razorbills

Trends in razorbill abundance at Lundy (4,508 individuals; Figure 9.4) and the Purbeck Cliffs (179 individuals) were similar to guillemots, but razorbills tend to be less numerous generally.

Productivity data for razorbills was collected by GoBe at the 12 sites in Cornwall but was little better than for guillemots (0.06 – 0.37 chicks per pair).

Puffins

Breeding puffins remain relatively scarce in the south-west away from Lundy. However, at Lundy, abundance continues to increase following rat eradication and 1,317 individuals were estimated in 2025, up from just over 800 in 2021. Thirty-six birds were recorded on the sea around Annet, suggesting the small Isles of Scilly population persists; the Purbeck Cliffs support just three birds (and no confirmed breeding) in 2025, meaning its fragile population remains at severe threat of local extinction.

<u>Gulls – herring gull, lesser black-backed gull, great black-backed gull, black-headed gull, Mediterranean gull, kittiwake</u>

Key colonies: Lundy, Isles of Scilly, Poole Harbour, Steepholm, Looe Island, Mullion Cliff

Herring gulls, lesser black-backed gulls, great black-backed gulls

The smattering of herring gulls around most of the coastline does not lending itself to meaningful analysis of trends, except when coverage is co-ordinated and comprehensive enough to allow regional assessments. This was not the case in 2025.

The largest regional colonies of both black-backed gull species are on the Isles of Scilly, with the lesser black-backed gull colony at Gugh largely stable over time (Figure 9.5); 2025 marked a slight increase in recent counts (491 pairs). The great black-backed gull colony at Annet showed no change from 2024 with 138 pairs recorded.

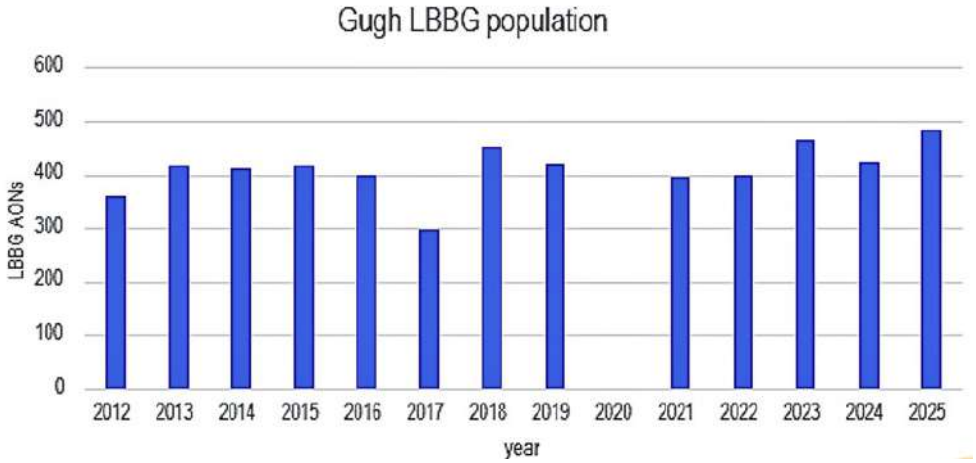


Figure 9.5. Lesser black-backed gull trends at Gugh, Isles of Scilly.

Black-headed gulls and Mediterranean gulls

The Wareham Channel in Poole Harbour contains low-lying islands supporting breeding black-headed and Mediterranean gulls. Although it is difficult to monitor the islands consistently, the count of black-headed gulls shows consistent decline (Figure 9.6), and only 43 Mediterranean gull nests were recorded in 2025 (cf 179 in 2024). It was considered that the hot, dry spring may have been a factor; over-topping is also more frequent as sea levels rise.

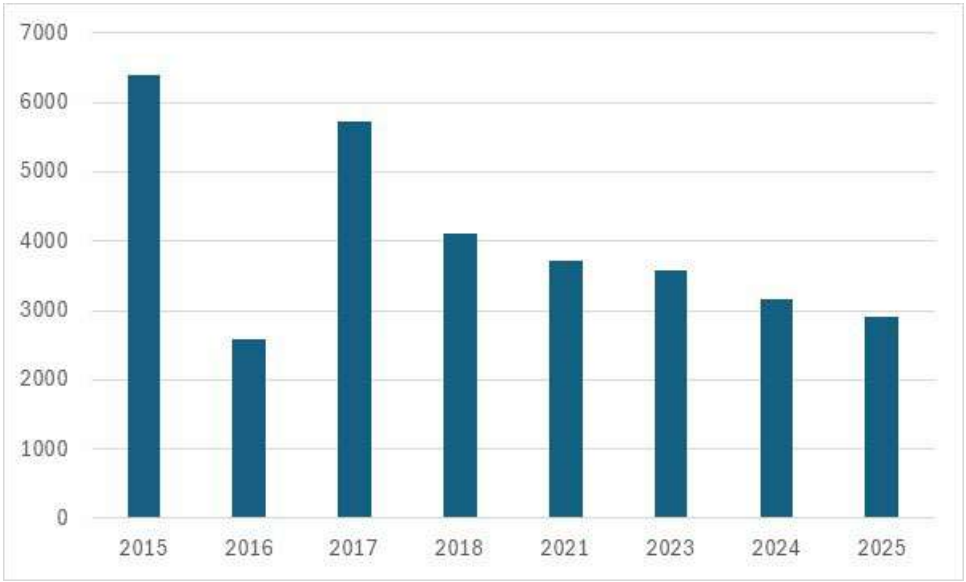


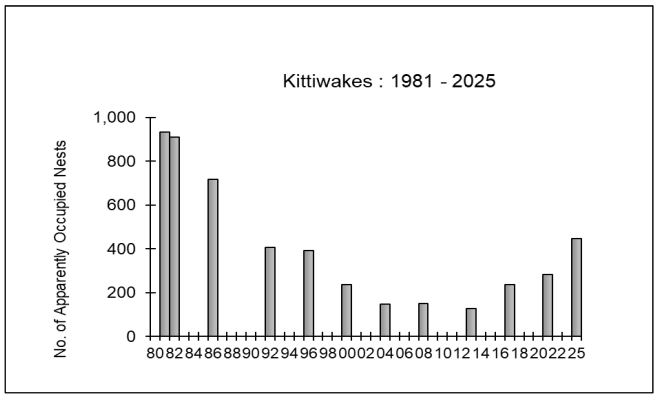
Figure 9.6. Black-headed gull trends at Poole Harbour.

Productivity of black-headed gulls remained good at Abbotsbury, with ~50 pairs fledging ~100 checks (2.00 chicks per pair).

Kittiwakes

Lundy, Gugh, Straight Point, and the Purbeck Cliffs all saw abundance increases in 2025, despite longer term declines (Figure 9.7.a, b, c). Most colonies in Cornwall showed reduced abundances (Figure 9.7.d), although the Rinsey / Trewavas colony seems to have relocated to Parc Trammel, where 140 pairs fledged approximately 0.6 chicks each.

a.



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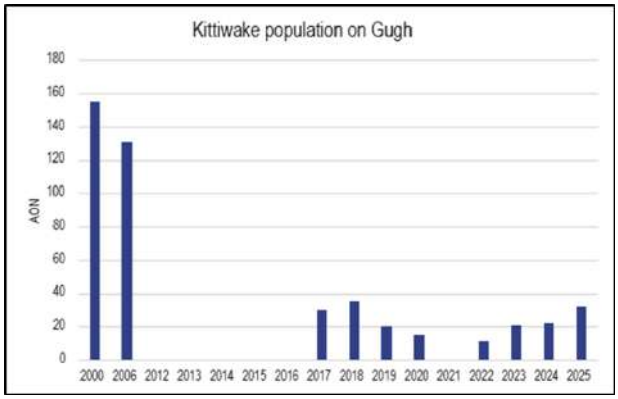
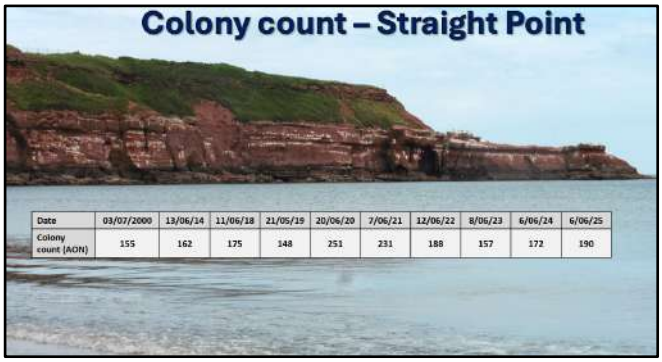


c.



d.

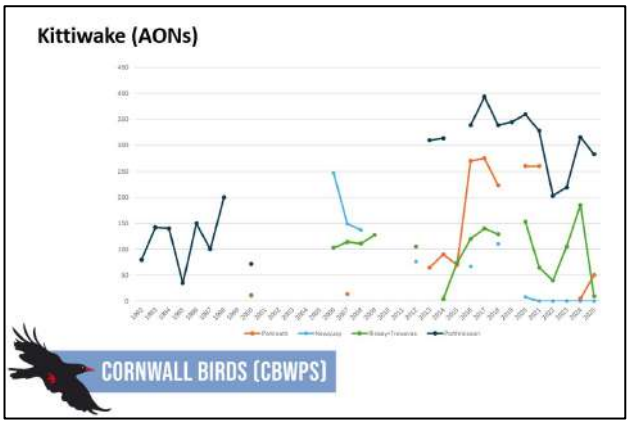


Figure 9.7. Kittiwake trends at a, Lundy; b, Gugh; c, Straight Point; and d, selected colonies in Cornwall.

Few productivity records were received – apart from the Cornish colonies, Straight Point was the only site with available data. The 0.45 chicks per pair was comparable with 0.53 in 2024; whilst this is a marked improvement on the avian influenza years when productivity dropped as far as 0.15 chicks per pair, it is a far cry from the >1.00 chicks per pair achieved in 2018 and 2019.

<u>Terns – Sandwich tern, common tern, little tern</u>

Key colonies: Brownsea Island, Lodmoor, Radipole, Abbotsbury, Chesil Beach

Sandwich terns

A continued bounce-back for Sandwich terns breeding at Brownsea Island, Poole Harbour, with numbers of breeding pairs (231) the highest recorded since 2010 and reasonable productivity of 0.95 chicks per pair.

Common terns

Common terns nested on Annet for the second consecutive year, providing some hope that the small population (18 pairs) can re-establish. At Abbotsbury and Lodmoor, productivity rates of ~2.00 and 1.00 were recorded from the 30-40 and 24 pairs breeding. At Brownsea Island productivity was much healthier than in recent years, with 108 pairs fledging 1.12 chicks each.

Little terns

The dedicated conservation effort at Chesil Beach continues to benefit little terns (Figure 9.8). Productivity was slightly down at 0.64 – 0.71 chicks per pair but remained reasonable for this still-fragile population.

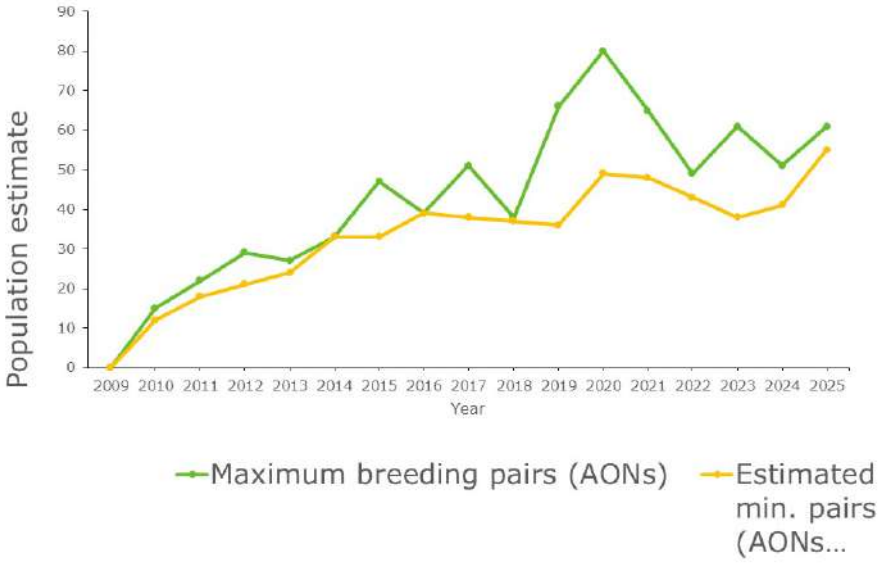


Figure 9.8. Little tern max and min AONs at Chesil Beach.

Ringing and tracking seabirds

On Lundy, a total of 753 Manx shearwaters and 246 European storm-petrels were ringed, alongside a handful of other seabirds.

A team led by Tim Guilford (OxNav) fitted a total of 20 tracking tags to Manx shearwaters on Lundy, whilst five more were fitted to storm-petrels by an RSPB team. Both rings and tracking tags will reveal important information about survival and movement of these birds. Early indications are that Manx shearwaters were tending to forage south of the island as far as the French coast, in contrast to previous patterns of movement west and north.

Tim's team also fitted four tracking tags to Manx shearwaters breeding on Gugh, Isles of Scilly.

Also on the Isles of Scilly, Sabiya Sheikh from the University of Exeter has been tagging razorbills, lesser black-backed gulls and shags breeding on the islands. The results will be reported in the resulting PhD thesis, which will provide fascinating insights into seabird movement, habitat selection and prey choices.

Noteworthy sightings of non-breeding birds

No data were received relating to the pelagic cruises around the Isles of Scilly in time for this report, but data were available from MARINELife surveys around the south-west, and from reports from sea-watching headlands.

At sea observations

MARINELife covered a total of almost 7,000 miles on surveys around the region (across all months). This included the Cefas 'Peltic' cruise in October 2025, ~3,000 miles from Portland to the Bristol Channel.

During this cruise, the highest ever encounter rate and absolute abundance estimate was recorded for European Storm-Petrel (876 birds), mostly east of the Scillies.

Gannet numbers were also up, with greater numbers of juveniles in the Channel than the Celtic Sea. However, only 29 great skuas were observed, the lowest recorded on this series of cruises, perhaps reflecting depletion after devastating HPAI outbreaks in 2022 and 2023.

Land-based observations

Balearic shearwater – A record year for sightings in Devon! In late July, ca. 1,100 from Berry Head loafing with another 2,000+ from boat towards Start Point = 3,100+ topped the 1,920 recorded from MARINELife boat surveys in Lyme Bay. Also, regular counts >1,000: min ca. 1,500 from pelagic off Brixham 06/08/25, new record passage of 1,978 from Berry Head on 07/08/25 (would have been more with total day coverage!), ca. 1,200 feeding/loafing off Start Point 02/09/25.

Cory's Shearwater – The only counts >1,000 were off Porthgwarra with 1,300 on 30th August and 1,450 the next day.

Great Shearwater – Following an increase in counts, an unprecedented 53,000 passed Lizard Point on 9th September. Also 1,907 from MARINELife surveys on the Peltic cruise, the second highest in the series.

Scopoli's Shearwater – Singles off Porthgwarra (14th July) and Coverack (30th August).

Wilson's Petrel – Exceptional total of 66 recorded, including 19 off Pendeen (4th August). First ever recorded in 20 years from MARINELife surveys in Lyme Bay.

Grey Phalarope – Peak counts of 55 off St Ives (4th October) and 49 off Pendeen (15th September).

Sabine's Gull – Exceptional counts peaked at 65 off Pendeen (1st September).

Barolo Shearwater – off Pendeen on 26th June 27th July and 4th September.

Band-rumped Petrel – off Coverack on 2nd September.

Soft-plumaged Petrel – reported off Coverack, Lizard Point and Porthgwarra on 13th July.

Fea's Petrel – reported 11 times at various sites 20th July to 10th September.

Black-browed Albatross – off Boscastle on 23rd January and St Ives on 28th November.

Winter gulls

Various sites around the south-west reported totals of gulls of various species which exceeded 1% thresholds of national importance. This included Weymouth Bay, Lodmoor and Poole Harbour (Mediterranean gull: max 650), the Severn Estuary (lesser black-backed gull: max 1,421) and the Exe Estuary (herring gull: max 7,400).

References

Lake, S., Rush, E. & Naprta, M. (2026). Purbeck Seabird Surveys 2026. https://www.birdsofpooleharbour.co.uk/wp-content/uploads/2026/01/Purbeck-seabird-survey-2025.pdf

11. Seals

Editor: Sue Sayer MBE

Contact: sue@sealresearchtrust.com

Authors: Sue Sayer MBE, Dan Jarvis, Anthea Hawtrey-Collier, James Barnett, Tara McEvoy-Wilding, Mya Tibbs, Mel Broadhurst-Allen, Sarah Greenslade, Sarah Hodgson.

Interactions with other thematic topics

- Oceanography
- Offshore Wind
- Water Quality
- Licensing and Developments
- Fisheries and Aquaculture
- Plastics and Marine Litter
- Marine Protected Areas
- Seabed and Seashore

Conclusions: State of SW Marine Ecosystems Seal Indicators:

- **The range of migration:** Seals link Cornwall to the Isle of Man (450km north), NW Wales, SW and S Wales, SE Ireland, the Isles of Scilly, NW France, N France, S France (800km south), N and S Devon, Dorset, the NE English coast (1000km), Belgium and Holland (650km east).
- **Seal population:** Undetermined as this is an open population across the entire Celtic Sea.
- **Grey seal demographics:** 73% were adults (up from 66% in 2024 which is a little worrying) and most adults were males (53%). White coated pups under three weeks old represented 1.5% of all seals. 14% were south coast pups (an increase from 3% which could indicate a shift in pupping).
- **Harbour seals:** There were 39 harbour seal sightings with up to a max of five at 12 locations. No successfully weaned harbour seal pups were recorded.
- **Vagrant seal species:** None
- **Entangled seals**: 94 unique entangled seals were identified (3%). Three hooked seals recorded. A new issue of industrial black plastic ring entanglement was recorded on two seals, one on each coast (north and south) in March and April 2025.
- **Disturbance**: 174 disturbance incidents involved 1112 seals (max 86 in a single disturbance incident). Looking at all levels of disturbance from level 1 (being woken up and alert) to level 3 (leaving the land to enter the sea, there were 419 seal disturbance incidents recorded at all levels on 12% of surveys impacting 3027 seals (8% of all seals recorded).
- **Rescued seals:** 84 pups admitted to BDMLR Hospital, marginally more than in 2024.
- **Tagged seals**: 144 different tagged seals (5%) identified.
- **Dead seals:** 239 dead seals were recorded by Cornwall Wildlife Trust's Marine Strandings Network. This is marginally less than 2024, but still an increase on the previous 10-year average of 210 dead seals. 47% of the 2025 dead seals were white coated or moulted pups. Since 2016, the number of dead moulted pups has increased substantially and still makes up the largest proportion of dead seals. Two dead seals were ID'd by SRT. An adult female around 29 years old and an ex rehabbed adult male, around 19 years old.
- **Postmortems:** 29 grey seals were examined: three adults, two juveniles, 19 moulters and five pre-moult pups. The primary conditions were trauma (17), infectious diseases (8) and Other (3).
- **This was not a normal year in the following respects:** Range of seal movements extended from SE Cornwall to NE England. Seal demographics have changed with a higher percentage of adult seals (73%). The lowest number of moulted pups were recorded at West Cornwall mainland since 2017. In 2024, we began getting white coated pups born early in March and April. In 2025 this continued with white coated pups born in February, March and May. Pupping season was more elongated. There was even more substantial ongoing serious disturbance impacting seals.
- **This was a normal year in the following respects:** Seal abundance appears stable; the percentage of entangled seals remained at 3%; there were fewer hooked seals (but apparently it was a poor mackerel season in St Ives Bay); the percentage of tagged seal recordings remained at 5%.

Seal Research Trust Cornwall and Devon Seal Report

Author: Sue Sayer MBE and SRT's Volunteer Survey Team

Contact: sightings@cornwallsealgroup.com

More detailed information can be found in SRT's 2024 Annual Report

Supporters

SRT were self-financing thanks to our public, private and voluntary funders. Substantial grants were given by the Flotilla Foundation and Innovate UK. Donations were received from the BDMLR, Bell Geospace, Carbis Bay Hotel, Bare Kind, MoonSeals, Aspects, Bowgie Inn, Mungo Lils on the Hill, Porthscatho Stores, RL surveys, Smartie Lids on the Beach, Our Only World, Polzeath Marine Conservation Group and Tidelight.

Communication, conservation actions and consultations

SRT's in-kind and paid contribution was valued at £1,091,633 per year by Natural England with an 87% Return on Investment, as assessed using their Citizen Science Evaluation Tool. In 2025 SRT delivered 1043 activities (including 418 UK and 128 globally) involving at least 25,345 beneficiaries directly and 37,000 indirectly. Volunteer involvement included 156 talks/workshops, nine stalls/events, 345 field engagements, one exhibition, eight school sessions, 19 Photo ID Project (PIP) day long surveys, 448 meetings, 29 papers and reports, 12 Seals SW Sessions, seven 'Seals!' Newsletters, our Wild Seal Supporter updates, four new resources, 68 media coverage events. Working with partners, SRT have helped to end Planetary Technology's plans for a marine geoengineering experiment in St Ives Bay. SRT continued to pursue the goal of making seal disturbance illegal. 2025 campaigns were Disturbance, Entanglement and Flying Rings. SRT used data to submit evidence to 41 consultations (19 for conservation, 11 on issues, 14 for developments, six on fisheries and eight others).

Research reports

SRT were co-authors on Keeley Saville's peer reviewed publication 'Vulnerability of Grey Seal Pups (Halichoerus grypus) to Storm Disturbances in the Context of Climate Change: A British Isles Case Study'. Sue Sayer MBE was the 'Gatekeeper' for Laurie Waller's peer reviewed publication 'Shoreline demos: The contested place of the public in a marine carbon removal trial'. SRT also contributed to the Department for Net Zero's Carbon Dioxide Removal Hub report on Marine Carbon Dioxide Removal (mCDR) in the UK: People, places and procedures – lessons from the St Ives MCDR experience.

SRT reports including eight boat survey transect reports by Sarah Millward and Mike Taylor; and five Looe Island reports by Martin Gregory. SRT published an Annual Report for 2024, along with the SW Marine Ecosystems report on Seals 2024 edited by Sue Sayer. Sue contributed to the Cornwall Wildlife Trust Marine Strandings Network report for 2024 and Cornwall Birds 2023 report. Dr Mel Broadhurst compiled SRT's 2024 Census report. Kate Williams produced a Hub report for Pentire. Milly Phipps summarised West Cornwall Data from 2014 to 2024. Sue Sayer summarised data from Looe Island 2019 to 2024 for CWT's Wardens and Seal Ambassadors. Sophie Harley wrote a Satellite Tag Literature Review. SRT provided the Wildlife and Countryside Link with a 2024 Seal Crime Seal Report that was shared publicly. Eloise Hall wrote a specialist report about the Key Agencies involved in Wildlife Enforcement in the UK for SRT.

Projects

Marine geoengineering: SRT's legacy from Planetary Technology's (PT) St Ives Bay geoengineering project has continued in 2025. This was a Carbon Dioxide Removal (CDR) Ocean Alkalinity Enhancement (OAE) experiment that could have set a global precedent for this industry. Keep Our Sea Chemical Free (KOSCF) and SRT co-hosted multiple online screenings of the KOSCF documentary across Europe and in the USA answering questions and sharing our key learning take homes. June saw SRT and KOSCF co-hosting a government funded CO2RE Geoengineering Workshop in St Ives bringing a wide range of stakeholder expertise from across Europe to examine governance and community involvement recommendations arising from our PT experiment experience. This was compiled into a report for the UK government's Department for Energy Science & Net Zero. This was followed by SRT and KOSCF as talk

participants in a CO_2RE webinar on the PT experiment along with CO_2RE partners. The best part of this two and a half year long, stressful experience happened in April 2025 during a signalgate-esque event. PT accidentally sent a google doc link to KOSCF containing multiple letters to a range of stakeholders about their withdrawal from their geoengineering project in Cornwall. These letters were scheduled to go out the following day / following week. As the project had started with a secret release, KOSCF and SRT decided to break the news to the press, South West Water (whose infrastructure was being used) and the licensing authority, the Environment Agency (EA). PT hadn't even planned to tell the EA despite thousands of pounds worth of taxpayers' money being used to fund the research and administration responses to PT's application. A further silver lining was pioneering systematic voluntary dive surveys in St Ives Bay aimed to finally record and map the marine habitats and species present. Armed with this information, SRT and partners will be better informed about suitable mitigation methods required for future projects here.

Photo ID software: Throughout 2025, SRT have continued a very productive collaboration with Dan Schofield and Horace Lee from Oxford University's Visual Geometry Group to develop our emerging bespoke Seal Photo ID software application. Progress has been substantial. Dan and Horace have created a seal counting software tool, set with SRT age and sex metrics that is simple and easy to use. SRT still use the 'Seal Detector' bounding box extraction software created by Seb East whilst he was at the University of Bristol, as this saves volunteers at big sites a lot of processing time. 2025 saw the most exciting development, as a Photo ID Application was created. Horace built upon a method created by Richard Frost (a previous SRT collaborator who trialled machine learning with SRT for ID) to extract all SRT's seal photos from their ID catalogues along with their Photo ID codes. Initially a small catalogue was uploaded to the ID App, followed by three major catalogues from West Cornwall to test the App's photo capacity. This enabled SRT to select a photo of a seal fur pattern to upload into the software and in less than a second a shortlist of around 50 potential seal matches was generated. This was (and still is) very exciting!

Underwater audio visual SealSpy kit: SRT have been engaging with Cornwall Council's Offshore wind research company Celtic Sea Power since 2017 and have built up a huge trusting and positive collaboration as a result. It has been a privilege to work with Neil Farrington, Harrison Smith and Wribhu Ghosh on a very exciting underwater seal vocalisations research project that will revolutionise 'at sea' monitoring of seals. This will ensure any offshore wind developer will have the best available, most thorough and comprehensive data about 'at sea' activity of seals. In 2025, Harrison presented about the work he had been doing as part of the SubSea Soundscape Project. The Celtic Sea Power team under Neil's leadership has developed an underwater audio-visual device to record seal vocalisations and behaviour along with partners from the University of Falmouth. Initial deployments at West Cornwall enabled improvements, as the prototype camera was pushed over by the seals who investigated it. Harrison has been busy labelling recordings of seal vocalisations. Wribhu has been using these to run a convolution neural network to automatically identify and classify seal vocalisations to a high degree of accuracy. Obviously more examples of seal vocalisations are needed to improve the accuracy levels. You can learn more about this project by watching the SW Marine Ecosystems Seal Webinar from 2025 (starting at 1:12:49). In 2025 SRT applied for an Innovate UK Grant to progress this partnership work which was successful. This project will progress two further improvements in the prototype – a trigger to save battery life and remote access to live stream data.

Surveys and Volunteers

In 2025 we received records from 277 different volunteers, from which we were able to process 4,059 separate surveys (an average of 11 site specific surveys each and every day) from 395 different locations. Our Sanctuaries at Sea Ranger, Sarah, coordinated our quarterly SW Seal Census, of which all four were completed in January, April, July and October. Thank you to all our amazing volunteers who took part and made these possible.

Seal data: Devon and Cornwall

Grey seals:

Seal counts: On average 10 seals were recorded, ranging from a minimum of no seals to a maximum of 317 seals counted during a single survey (down from 557 in 2021; 519 in 2022; 458 in 2023 and 454 in 2024). Of seals that we were able to classify according to their age, 73% were adults (up from 66% in 2024 and 2023) and 27% juveniles, moulted pups or white coated pups. Only adults can be reliably sexed, so of all adults that we could confidently sex,

53% were males and 47% were females (similar to 56% males recorded in 2021, 2022, 2023 and 57% in 2024) despite a huge survey effort and dataset.

Pup counts: White-coated, maternally dependent, pups (WCPs) were recorded on 603 occasions at 31 different locations. Most were recorded on the north coast, but WCPs were recorded at eight different sites on the south coast of Cornwall and Devon. WCPs represented just over 1.5% of all seals observed. 86% of the WCPs were born on north coast sites (compared to 97% in 2024) with 14% on the south coast. The maximum number of WCPs recorded at a single site in a single survey was six at both the West Cornwall East and North Cornwall East sites as well as Gurnards Head on the north Cornish coast and Lizard West (the first time this number of pups have been recorded on the south Cornish coast). Five or more WCPs were recorded 13 times at seven different pupping sites at the North Cornwall complex (two sites), West Cornwall East (three sites), Gurnards Head (one site) and Lizard West (one site). Sadly, our world record breaking seal mum 'Ghost' was not identified at her normal pupping site, having had her 20th pup there in 2023, so this is the third year (2018, 2024 and 2025) that she has missed returning.

Pupping season: Historically between 2010 and 2016, most pups were born in October followed by November. In 2022, most pups were born in September followed by August (but with only four more pups born in August than October). In 2023, most pups were born in September, but there were 23 more pups born across the south-west in August compared to October. Worryingly this trend continued in 2024 with almost as many pups born in August (37%) as in September (46%) and far fewer in October (9%) with the remaining 8% born in other months between March and November. In 2025 most pups were again born in September (55%) followed by August (27%) and October (9%) with the remaining 9% in February, March, May, July, November and December combined. The main pupping season continues to start earlier compared to 2016, creating temporal and spatial overlap with the peak tourist season, which is problematic. 2025 appeared to have a more elongated pupping season stretching from February to December (compared to March and November in 2024). This is also a worrying change.

Figure 11.1. Twin seal pups at 'Lizard South'. Image: Elizabeth Hall.

Behavioural firsts: In 2025, SRT recorded some extraordinary seal pupping firsts. A second pup birth was photographed (by Geoff Rogers) that revealed the physiology of the amniotic sac and chorionic membrane for the first time. SRT volunteers likely recorded world first successfully weaned wild seal pup twins at Lizard South to legendary mum Key (discovered by Terry Thirlaway and photographed by Elizabeth Hall. Finally, Photo ID records have been validated from new volunteer Florence Hall, who photographed seal mum Butterfly feeding three pups and still successfully weaning her own birth pup. For more information, please watch the SWME 2025 Seals Webinar (from 1:17:52)

Harbour seals:

Seal counts: Observations included 30 records (down from 58 in 2024) with 39 harbour seal sightings (down from 85 in 2021 and 72 in 2024). 34 records were single individuals up to a maximum of five individuals seen on 28/05/25 in South Devon. Harbour seals were recorded at 12 different locations (compared to 15 in 2024). This included one north and 11 south coast sites at locations across Cornwall, S Devon, Dorset and Hampshire. No harbour seal pups were recorded in either 2024 or 2025.

Photo ID (PID): PID Hubs processed an incredible 82,091 photos in 2025 into 1,502 survey albums (including 329 historical albums from 2019 to 2024). This enabled SRT to generate a total of 9,820 seal identifications of which 85% were re-identifications (which is exactly the same as 85% in 2024 and surprisingly consistent with 84% in 2023, 87% in 2022 and 2021 and 86% in 2020). This included a maximum of 95 different individual seal identifications in a single survey (which is substantially less than the 145 in 2023. We think this is because the big seal haul outs on the north coast now have fewer seals than historically). Each Re-ID was confirmed by two experienced volunteers. Over 75

different seals were identified on four separate surveys, all at the West Cornwall site. In total, 3,076 different seals were identified in 2025. 28 seals from six sites were identified 20 or more times from the Lizard, Looe, Pentire, Roseland, St Ives and West Cornwall Hubs. This is a reflection of the frequent survey effort at these sites (all are surveyed on multiple days every week) and the incredible ID processing hub team effort.

Life expectancy and survivorship: Of all the seals re-identified in 2025, 36 were identified for at least 20 years by the SRT Photo ID Hub Network. Five were seals first added to our catalogues back in 2000 (one male and four females); Seven were first identified in 2001 (seven females); nine were seals first identified in 2002 (one male and eight females); eight were seals added to catalogues in 2003 (eight females); five seals first identified in 2004 (five females) and three seals first identified in 2005 (one male and two females S172 / S180). This totals three males and 32 females, supporting the theory that females outlive males in the wild in the southwest UK.

Tagged seals: Photo identified ex rescue, rehabilitated and released seals by SRT: SRT 2025 data included 795 sightings of 144 different rear flipper tagged, rehabilitated seals (around 5% of all seals observed) from all around the southwest coast. Most tagged seals recorded would have been released in north and south Devon by RSPCA West Hatch or from the northwest and southwest Cornish coast by the Cornish Seal Sanctuary, but there were five notable exceptions. 'Sate' was released in France on 1st September 2013. 'Les Devil', 'Drago' and 'Liscannor' were all released from Courtown in SE Ireland on 7th January 2021; 4th February 2022 and 5th January 2025 respectively. 'Panda' was released by RSPCA Mallydams from the Gower Peninsular in South Wales on 22nd January 2020.) The longest recorded, and so likely oldest, tagged seal identified in 2025 was S123 'Puffa' (an adult female released in 2003 so 23 years old).

Key Observable Issues

Entangled Seals: In 2025 across Devon and Cornwall there were 804 sightings of entangled seals in 421 surveys. A total of 94 different entangled seals were identified. SRT have been systematically recording entangled seals since 2011 when 3% of all seals sighted had evidence of previous or current entanglement injuries and a maximum of 11 entangled seals were counted in a single site survey. There were 55 different identified entangled seals in 2011. Sadly in 2025, the percentage remained the same at 3%, but the number of entangled seals recorded in a single survey has risen to 14 individuals (although this is down from an all-time high of 23). A new entanglement issue that emerged in late 2021 continued to be observed in 2025 – that of seals being hooked in line mostly from our local sustainable inshore mackerel fishery. In 2025, only three different seals were recorded as hooked in 2025 (compared to six different seals in 2024). They were recorded at both the West Cornwall and Pentire sites (by James Savage). We know from our long-term seal data that peak seal numbers have shifted earlier from March/April to December/January. In contrast, we have been told that the mackerel fishery has moved later in the year, from starting in the summer to commencing in November. This has created a temporal and spatial overlap between peak seal numbers and the mackerel fishery that never used to occur. This has presumably caused the new and emerging issue of hooked seals. It appears that in 2025 there was a very poor mackerel season on Cornwall's north coast and this likely explains why fewer seals were recorded as hooked. Bad news for the local sustainable mackerel fishery but good news for the seals. SRT continue to share data and entangled seal experiences as members of Clean Catch UK. SRT continue to champion seals on the National Advisory Board represented by our Science Advisor Bex Allen. SRT remain participants in the global Pinniped Entanglement Group of which Sue Sayer and Dan Jarvis are both members. Bycatch includes the live entangled animals described above, who have most likely interacted with lost fishing gear. It also refers to dead seals accidentally caught up in live operational fishing gear. We were shocked to discover from the 2025 Special Committee on Seals (SCOS) report that 70% of all UK seal bycatch occurred in our southwest region (ICES area VII). This is down from the estimated 85% reported in the 2020 SCOS report. In May 2025, the Seal Alliance launched a public petition on change.org 'Stop the import and sale of flying rings that cause pain, suffering and death to seals'. By the end of 2025, there were 47,091 signatures. This petition is still running, so please continue to sign and share widely across your networks!

Disturbance: Routine data (not effort corrected), serious level 3 disturbance is described as seals leaving the land by tombstoning (leaping from height) or in a stampede (rushing over sand/rocks) into the sea; crash diving at sea; displacement from sea areas where humans were present or seals being fed. There were 174 serious disturbance incidents (up from 160 in 2024). In total, level 3 disturbance affected 1112 seals in 2025 (up from 930 in 2024.) This was an increase in the number of serious disturbance incidents from 2024, as well as an increase in the number of

seals seriously disturbed. Disturbance ranged from a minimum of one seal in 51 incidents to a maximum of 86 seals on 3rd January stampeding into the sea at Pentire in a single incident. This resulted from a dog barking on the adjacent beach. 20 or more seals were seriously disturbed stampeding into the sea on 15 different occasions at four different sensitive seals sites in the Pentire, West Cornwall, West Cornwall East and West Penwith South areas. Looking at all levels of disturbance from level 1 (being woken up and alert) to level 3 (leaving the land to enter the sea), there were 419 seal disturbance incidents recorded at all levels on 12% of surveys impacting 3027 seals (8% of all seals recorded). This shows that disturbance is still a substantial issue that SRT and partners must keep working on. In April 2025 wildlife tripper boats were recorded by SRT volunteers visiting the mainland West Cornwall haul out where seals are protected within the SSSI as a monitored feature. To ensure everyone was fully aware of the protection for seals along this stretch of coast, SRT wrote to the relevant boat owners and skippers and the local Harbour Master in the hope of avoiding SRT volunteers witnessing an illegal disturbance incident. SRT provided intelligence about one of the 419 incidents to the relevant enforcement agencies – Natural England (NE) and the Police. On 9th October, SRT volunteers witnessed a fixed wing aircraft fly over the West Cornwall mainland beach where seals are protected within the SSSI as a monitored feature. SRT recorded a video of a major seal stampede where 40 seals rushed towards the sea and an additional 11 entered the sea. SRT emailed the details and video to the local airfield outlining the situation and copied in NE and the Police. An excellent and positive response was received that resulted in the pilots being alerted to the risks posed by disturbing seals at the site, given it was an offence. SRT were also advised to highlight these SSSI sites to the National Air Traffic and Civil Aviation Authority to request no fly zones across these areas. Many disturbance incidents in SSSIs where seals are a monitored feature can't be followed up as: the cause could not be identified; the cause involved disturbance arising from climate change (coastal erosion rockfalls and extreme weather events such as hammering rain or hailstorms) or other seals; the person causing the disturbance could not be identified. As a result, SRT provided intelligence about three of the 419 incidents to the relevant enforcement agencies – Natural England (NE) and the Police.

Rescue, rehabilitation and release

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The BDMLR Cornwall Seal Hospital received 84 grey seal pups for rehabilitation during the rescue season between August 2025 to April 2026. This is approximately average compared with intake since 2009/10, though the average trend is on an increasing trajectory as casualty rates have increased substantially for a number of reasons. This includes public awareness, human disturbance, and climate change (storm) impacts. Significant storms were relatively infrequent during the latter half of 2025, which likely contributed to fewer animals needing rescue during the earlier part of the season. However, December became exceptional for the volume of callouts and hospital admissions when there were longer periods of generally rougher conditions and represents one of the busiest single months for uplifts on record.

Intriguingly, the very severe storms of January 2026 did not result in the expected significant influx of live casualties, as has been the case with many storms of this type in the past. The reasons for this remain unknown at present and requires further research. Speculatively, it is possible some of this could be explained by the pupping season shifting earlier in time over recent years, resulting in some of the comparatively older pups now experiencing storms in January being better able to cope in those conditions. More data from future seasons would be needed to corroborate this theory however, and additional datasets such as the Cornwall Wildlife Trust Marine Strandings Network for deceased seals may tell another story, but this early 2026 data is not yet available.

Strandings Cornwall Wildlife Trust Marine Strandings Network (CWTMSN)

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239 dead seals were recorded in 2025 by Cornwall Wildlife Trust's Marine Strandings Network. This is marginally less than 2024, but still an increase on the previous 10-year average of 210 dead seals. As seen in recent years almost half of these were white coated or moulted pups under the age of one year old. A higher number of dead seals were recorded in every calendar month (compared to the 2005 to 2024 average) particularly September to November and with the exception of April, when the number recorded was less than the longer-term average. Two whitecoat pups were recorded in July and whitecoat deaths were seen in significant numbers from August 2025 through to September indicating earlier than expected pupping activity. Moulted pup deaths peaked soon after in November to December 2025.

Notable cases: A juvenile female grey seal was found on Holywell Bay on 5th October with features of bycatch, recorded by Nancy and Toby Nenning and recovered for postmortem examination by Cornwall Marine Pathology Team (CMPT). A male moulted pup grey seal was recorded dead on Eastern Green Beach, Penzance on 12th July which had features indicative of bycatch. A male juvenile grey seal was found on Gwithian Beach 21st October and recovered for postmortem examination. Extensive trauma to the carcass was consistent with grey seal predation. A grey seal, age and sex unknown, was found on Widemouth Bay Beach on 28th October by Janina Grice which had a starry smooth hound stuck in its mouth and it probably choked on it. Unfortunately, the seal was removed from the beach before MSN were able to fully record it. Known seal 'Emilia Clarke' was found by a member of public on Covean Beach, St Agnes, Isles of Scilly, a Cornish Seal Sanctuary release from Perranuthnoe July 2024.

Photo identified dead seals by SRT: SRT continue to partner with CWTMSN and in 2025 two dead seals were ID'd by SRT. The first identified dead seal S64 Line dot line was recorded dead on 20th May at Riviera Towans, Hayle by Alyson Devonshire. Her first live sighting was on 23rd August 2002 at West Cornwall by Sue Sayer when the seal was around five years old. She was identified just 17 times across the intervening 23 years at nine different sites in six different areas from West Penwith North to North Cornwall. Her last live sighting was on 18th May at West Cornwall recorded by Florence Hall. She was recorded dead two days later on 20th May when she was likely around 29 years old. The second identified dead seal was also well known to SRT as LP41 Jenga. Jenga was recorded dead on 4th May floating in the sea off Park Head on the north Cornish coast by our boat charter skipper Chris Lowe. In 2007 Jenga had required rescue and after a successful rehabilitation at the Cornish Seal Sanctuary he was released back into the wild in on 27th February 2008. He was first live sighted in the wild on 15th March 2008 at West Cornwall by Sue Sayer. Jenga was proof that ex rescue, rehabilitated seals can live a full and normal life once returned to the wild. At around the age of 10 Jenga was identified as a sub Beachmaster and got lucky enough to be a sneaky male mating with a female in season. By 2018, Jenga became a Beachmaster, mating with the females he was protecting at Porthtowan until at least 2022. Jenga's last live sighting was on 17th April at West Cornwall by Sue Sayer. He was dead around a month later at the likely age of 19 years old. It is interesting that both these seals made it through to a good age, although both were under the average life expectancy for their sex.

Post Mortem Examinations

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29 grey seals were examined postmortem in 2025, including three animals found in 2024. This included three adults, two juveniles, 19 moulters and five pre-moult pups. The primary conditions found included 17 cases of trauma, eight cases of infectious disease, and three cases that fell into neither category. A cause of death could not be provided for one animal due to the degree of autolysis of the carcass. 12 animals were found dead and the other 17 had died or been euthanased at rescue or during early attempted rehabilitation.

Figure 11.2. A suspected catheter bag in the stomach of an adult grey seal. Image: James Barnett.

Notable cases in pups included a moulted male with a large swelling on the neck due to extensive necrosis and abscessation of the soft tissues, potentially caused by a penetrating foreign body and a female pre-moult pup that was monitored for three days before its condition deteriorated and was found to have a fractured mandible of 24 to 72 hours' duration and acute onset bacterial pneumonia. A male juvenile had a large helical wound running from the left fore-flipper to the right pelvis with extensive under-running and linear grooves in the blubber consistent with those seen in grey and common seals predated by grey seals. Among the adults, a female had been bycaught in monofilament netting and a thin male had asymmetric wear of the teeth potentially due to an asymmetric bite, four non-healed rib fractures, a urinary catheter bag and ball of monofilament netting in the stomach which may have restricted movement of ingesta and caused mucosal ulceration and haemorrhage, and urethritis probably due to an ascending bacterial infection.

North Devon Seal Report

Author: Kate Williams Seal Research Trust (SRT)

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The North Devon volunteer survey team grew in 2025. Surveys were conducted on 51 days, mostly between May and September when the seals arrive to haul out on the rocks. (The only months with no surveys were January and November). Seals were seen hauling out in all surveyed months, but numbers began increasing in April 2025 and then rose substantially as expected in May 2025. Numbers remained high between May and July, peaking at 25 (down from 34 in 2024). The maximum count remained in double figures until October, lowering as the females moved away to have their pups. 80% of the seals seen and recorded were adult females. There were 415 re-identifications of seals from the Photo ID catalogue, and 111 different seals were identified. Smiling monster was the most identified seal (20 times) but 16 seals were recorded 10 or more times, whilst 56 seals were only identified once during the year at this location.

Lundy Seal Report

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Seal counts: The highest total count was recorded on 6th October, with 183 individuals observed (16 males, 122 females, 12 juveniles, 1 weaner, 10 white-coat pups, 1 dead pup, and 21 individuals of undetermined age or sex). This peak is 24 seals fewer than the 2024 maximum count of 207. The lowest count occurred on 20th October, with just 28 individuals recorded.

As in previous years, females were the most frequently observed sex category during every survey except the final survey of the season, which was completed by a different surveyor. Earlier Lundy Seal Reports (2017, 2018, 2020, and 2021) have noted an apparent increase in males around mid-September; however, this pattern was not evident in 2025. As highlighted in prior reports, seal distribution around Lundy is strongly affected by weather conditions and sea state. Surveys conducted during periods of easterly winds showed notable absences of seals at typically popular haul-out sites such as Rat and Mouse Island. Two surveys were carried out with easterlies: 25th September with a total of 65 individuals, and 21st August with a total of 35 individuals. These surveys occurred during the peak seal season, and total counts are significantly lower than other surveys during this time.

Seal haul-out sites: The most popular haul-out spot during the 2025 season was Three-Quarter Wall Bay. This has also been reported as the most popular location in the 2021, 2023, and 2024 reports. The highest count at Three-Quarter Wall Bay was 67 individuals. Seals at Three-Quarter Wall Bay accounted for 14% of all sightings, followed by Brazen Ward Battery with 9.7% and Halfway Wall Bay with 8.5%.

Seal pupping: A total of 64 seal pups were recorded on Lundy in the 2025 pupping season. This is 7 individuals less than 2024 and 2 less than 2023, but higher than any record before 2022. This total would be less than the actual productivity of the island, as there would be many more pups present, hidden within the island's inaccessible sea caves throughout the season. The first white coat pup was found on 4th August at Castle Bay (CAS), and the last new pup was found on 8th November at Devils Kitchen (DEV). The survey locations with the highest number of first pup sightings were Quarry Beach and White Beach, each with 15 first sightings.

Mortality: The observed mortality in 2025 was 11 individuals, with an observed mortality rate of 17%. This is lower than the 2024 observed mortality rate of 21%, which faced strong easterly storms and spring tides that coincided with pup births. Fatalities were much higher when combining observed mortality with assumed mortality, producing a mortality rate of 30%. The combined observed and assumed mortality in 2024 was 36%, higher than the 2025 rate. Analysis of pup data from 2014–2025 showed a statistically significant increase in the number of grey seal pups born on Lundy Island between July and November over this time span.

Disturbance: After a trial during 2024, we decided to continue with the disturbance surveys at Gannets Bay, thanks to the assistance of an extra volunteer Kirsty Cox. Across 9 surveys, 46% of seals were recorded to have been disturbed to some extent. Each disturbance event was either caused by a boat coming into the bay or because snorkelers got too close. Disturbance was classified to three levels:

Level 1- Alert: Disturbed from resting, becoming vigilant

Level 2- Shifting: Head up, scanning the surroundings, shifting around on their rock

Level 3- Flushing: Moving across the rocks rapidly, diving into the sea.

The majority of disturbance was at level 1, however the response level can quickly escalate to 2 or 3 if snorkellers come closer or boat noise continues. Level 3 disturbances can have significant health implications for a seal, both because of short term injures such as lost claws and lacerations and long-term consequences if they are regularly flushed off the rocks and losing resting time. For 2026, we plan to increase disturbance surveys further and have recruited extra volunteers to be able to achieve this. We hope to be able to undertake at least two surveys a week from June- August.

Engagement: To engage with the North Devon community, in 2025 we ran a 'Lundy Seal Champion' Competition. This was a competition for primary school aged children to write or design a creative piece of work to help us raise awareness of seal disturbance around Lundy and to help promote our Seal Code of Conduct. The competition was a success with around 90 entries from seven schools. The winning entries have been displayed in St Helen's Church and will be used in partnership with the North Devon Biosphere to raise awareness of seal conservation.

Channel Isles Seal Report

Author: Dr Mel Broadhurst-Allen Alderney Wildlife Trust

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Channel Islands: Several organisations across the Channel Islands actively record seals through the 'Channel Island Network'; a collaborate project which aims to assess seal abundance and distribution (primarily grey seals), coordinated by the Groupe Mammalogique Normand. Seal sightings and strandings for each island (Alderney, Guernsey and Jersey) are given below.

Alderney: The Alderney Wildlife Trust completed four boat-based marine mammal observation surveys (May-September) during 2025. These were completed within the island's Ramsar Site, where a colony of grey seals are known to habit. Combined, a total number of 220 grey seal (*Halichoerus grypus*) sightings were recorded from these surveys, which primarily comprised of adults. The AWT also collated 42 sightings of grey seal individuals recorded

opportunistically by members of the public across the inshore bays of Alderney. Two live young grey seal weaners were recorded hauled out on Alderney during the autumn (Blue Bay on 21st October and Hanaine Bay on 9th November). Both individuals were deemed healthy by on-island BDMLR medics/local vet nurses and were regularly monitored until they left the areas naturally.

Guernsey: Volunteers within the marine biology section of La Société Guernesiaise (an NGO based in Guernsey), completed three boat-based marine mammal observation surveys along the East coast of Guernsey. Surveys were undertaken across a number of offshore rocky islets, collectively known locally as 'the humps' area, which is within one of Guernsey's designated Ramsar Sites. Surveys were completed in April, July and October, with a total number of 115 grey seals recorded. The surveys recorded a mixture of males and females, primarily adults and a small number of juveniles, collectively (see photograph from Nicky Harris). Several strandings of live grey seals occurred on Guernsey this year, with rescues/rehabilitations undertaken by the Guernsey Society for the Prevention of Cruelty to Animals (GSPCA).

Jersey: Jersey Marine Conservation completed six boat-based surveys in 2025 at key offshore sites, including the Minquiérs and the Écrehous, throughout the year. Collectively, a total number of 19 grey seal individuals were spotted, predominantly young seals. The States of Jersey Marine Resources Team collated 10 sighting records of grey seals, via the recording app Epicollect from their own boat-based surveys and other commercial ecotourism vessels across Jersey. The Jersey based BDMLR group were called out to 12 stranded seals on the island during 2025. These comprised both grey and common seal species, primarily young weaners/juveniles. Stranding management options ranged from on-site monitoring to the rescue/rehabilitation of individuals in Jersey and UK rescue centres.

South Devon Seal Report

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Brixham Marina seal counts. TSP has been monitoring and recording grey and common seals around South Devon since 2017. 2025 was our busiest year to date. At the start of the year, rough seas coincided with an average of around 50 seals per day using the wooden wave screen at Brixham Marina (MDL), with a peak count of 74. As expected, numbers dropped sharply by March, with only occasional sightings of up to five seals, many days being zero counts. Numbers rose again during the winter moult, ending with a record count of 103 grey seals in the marina on New Year's Eve. As in previous years, seal activity in the marina reduced significantly by February. It's fair to say our predictions for 2026 will be higher numbers.

Figure 11.3. Seal caught in a plastic ring in South Devon. Image: Sarah Greenslade.

Entanglement. Entangled seals are few, but we had one caught in a plastic ring over the Christmas period that has not been seen since, and two others – one now four years into the entanglement and another during early 2025. These get a fair amount of social media posts, which we don't feel help. These seals are on pontoons so are inaccessible, but we do constantly record and keep an eye on their welfare.

Maintaining marina access. The seals have also become more confident within the marina. Several known females continued to haul out on pontoon fingers without causing concern, but one adult male repeatedly used the main walkways and resisted attempts by staff and volunteers to move him on. In response, the MDL Health and Safety staff worked with TSP to introduce a pig-herding board mounted on a marina trolley, providing a safer way to encourage seals to move when access was needed. While some disturbance was unavoidable, this was necessary to maintain safe access for boat owners and marina users. We have advised that this behaviour should be managed earlier this coming season to prevent future problems.

Managing people around seals. Later in the year, increasing numbers of juvenile seals appeared within the marina vicinity, often using visible rocks and beaches to rest. This required extended monitoring to help prevent

disturbance. We are grateful for the continued support of local harbour authorities, marinas, the public, and our volunteers.

River Dart seal counts. Regular river surveys continued across South Hams. However, at Dittisham, new owners to the kayak company resulted in kayaks being left on the pontoons throughout the year – giving limited seal access to resting areas, making seals harder to observe and reducing recorded counts. In contrast, monitoring from the Mew Stone camera off Dartmouth has remained highly effective, with low levels of disturbance where volunteer coverage is available. We've advised the Dart Harbour Authority with a few causes of concern from boat operators: so far, all advice appears to have been successful.

Dorset Seal Report

Author: Sarah Hodgson Dorset Seal Project (DSP)

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The Dorset Seal project was set up by Dorset Wildlife Trust (DWT) in 2014. By recording casual seal sightings data and photo identification work, we have been learning more about grey and common seals that visit the Dorset coast. Alongside this research, DWT has been raising awareness of these iconic marine species and promoting codes of conduct to reduce anthropogenic impacts.

Seal census: In October, we conducted a Dorset Seal census as part of the SRT's autumn census to learn more about seals spotted along the coast. During the 5-day survey window, 32 volunteers carried out surveys along most of the Dorset coast recording a total of 17 seals. An interesting observation was a common seal that was spotted swimming at Portland Bill. Grey seals are often sighted in this area; however, this is the first time we have recorded a common seal there.

Photo ID: Some photos of a common seal in Poole Harbour were shared by a member of the public on social media. The seal had a tag on its rear flipper, which was a little faded however, by comparing images with our photo identification catalogue, we were able to identify the seal as "Bonnemine" who was cared for by a rehabilitation centre, Association Chene, in France in 2007. The seal was fitted with a satellite tag and released near Mont St. Michel later that year. The tag tracked her crossing the Channel, arriving on the Dorset coast. The satellite tag stopped transmitting in 2008, with the last known location as Poole Harbour so she it's great to see that she's still thriving 18 years later!

Key Issues: Disturbance is one of the biggest issues seals face in Dorset and 2025 was sadly no different. A sub adult male grey seal was recorded hauled out at Durdle Door again during the spring. This is one of the busiest beaches in the region so it often attracts a lot of attention from visitors. The seal was identified as 'Sammy', a seal which is known to be habituated. This behaviour appears to repeat year on year during the moulting season and often requires a lot of resources to manage, with BDMLR spending a lot of time on site.

Summary

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The amount of volunteer work that has gone into collecting, digitising and analysing the data for this report is phenomenal. It was fabulous to get so many different organisations collaborating for the ultimate benefit of seal conservation. Each is independent, yet all rely on a large number of trained volunteers who are inspired to collect routine data in all weathers and sea conditions. Seals use a huge range of habitats across the southwest from remote wild coves and caves to hugely public anthropogenic structures. Together these seal related organisations have raised awareness and mitigated many of the issues that seals now increasingly face in our ever-changing world. Action now will ensure future generations of seals and people can co-exist.

12. Cetaceans

Editor: **Duncan Jones** Marine Discovery Penzance (d.jones11@exeter.ac.uk)

Contributors: Dan Jarvis, British Divers Marine Life Rescue; Joe Dennett, Cetacean Acoustic Trend Tracking Project; Rebecca Allen, Cornwall Wildlife Trust; Sarah Matthews, Dolphin Zone; Lissa Batey, LB Ocean Consulting Ltd.

Conclusions

- The seas surrounding the south-west represent an important habitat for cetaceans.
- The data suggest a significant northward shift in the distribution of common dolphins in the Bay of Biscay, as well as a coastal shift during summer, autumn, and winter.
- The decline in effort-corrected sightings of Harbour Porpoises remains evident in two of the datasets, while the third indicates a continued increase. Could this suggest that harbour porpoise habitat is contracting to specific areas?
- The upward trend in effort-corrected sightings of Risso's Dolphins has continued and is likely linked to increased numbers of cuttlefish and octopus in south-west coastal waters.
- Coastal Bottlenose Dolphins are no longer being recorded in the western part of the region during the summer months. However, observations of the offshore ecotype of bottlenose dolphins continue to increase.
- Effort-corrected observations of fin whales have increased over the past six years, with all the two inshore datasets reporting continued sighting rates while the offshore dataset shows a decline in 2025.
- Humpback Whales continue to be recorded in the region. In 2025, they were consistently observed along the North Cornwall coast during January and February.
- Understanding the underlying drivers of these ecological changes is essential. The increasing coastal presence of Odontocetes also raises concerns about heightened exposure to human impacts and anthropogenic disturbance. Cornwall continues to report the highest rates of cetacean strandings in the UK, with bycatch remaining a significant contributing factor.

Introduction

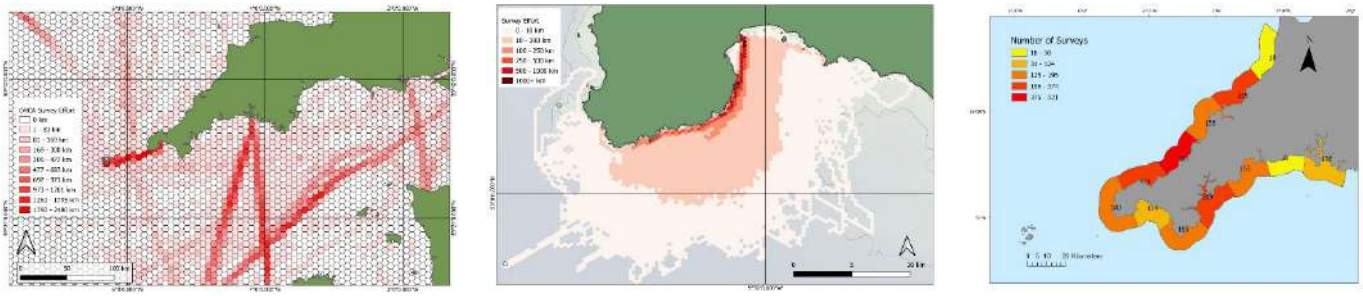

Figure 12.1. Data sources: ORCA (far left) shows the survey effort or ships track as kilometres effort per 500 metre grid cell. The sampling distance is represented out to 5km from the survey location. Marine Discovery Penzance (centre) this shows survey effort or ships track represented as kilometres searching at a 500 metre resolution. Seaquest SW (far right) shows observer searching effort by number of surveys.

The three principal datasets used in this study were derived from Seaquest Southwest (SQ), Organisation Cetacea (ORCA), and Marine Discovery Penzance (MD). SQ data were collected around the Cornish coast between 2011 and 2025, ORCA data were gathered from cruise ships and ferries operating in the region over the same period, and MD data were collected within Mount's Bay, Cornwall, from 2011 to 2025. Collectively, these long-term datasets provide a broad overview of cetacean occurrence and observation trends in the south-west across a range of spatial scales (Figure 12.1).

Despite this extensive coverage, survey effort remained concentrated around Cornwall, although the inclusion of ORCA data considerably improves offshore and regional spatial representation. Expanding effort-corrected survey coverage across neighbouring counties such as Devon, Dorset, and Somerset would strengthen future analyses and improve understanding of wider regional trends. While incidental sightings can provide useful contextual information, they are less suitable for robust trend analysis due to the influence of numerous uncontrolled variables and inconsistencies in survey effort.

Odontocetes (toothed whales)

Figure 12.2. Harbour Porpoise mating breach. Image: Marine Discovery Penzance.

Figure 12.3. A Bottlenose Dolphin breaches in Mount's Bay, Cornwall. Image: Hannah Wilson.

Figure 12.4. Common Dolphins in Mount's Bay, Cornwall. Image: Hannah Wilson.

Harbour Porpoise *Phocoena phocoena*

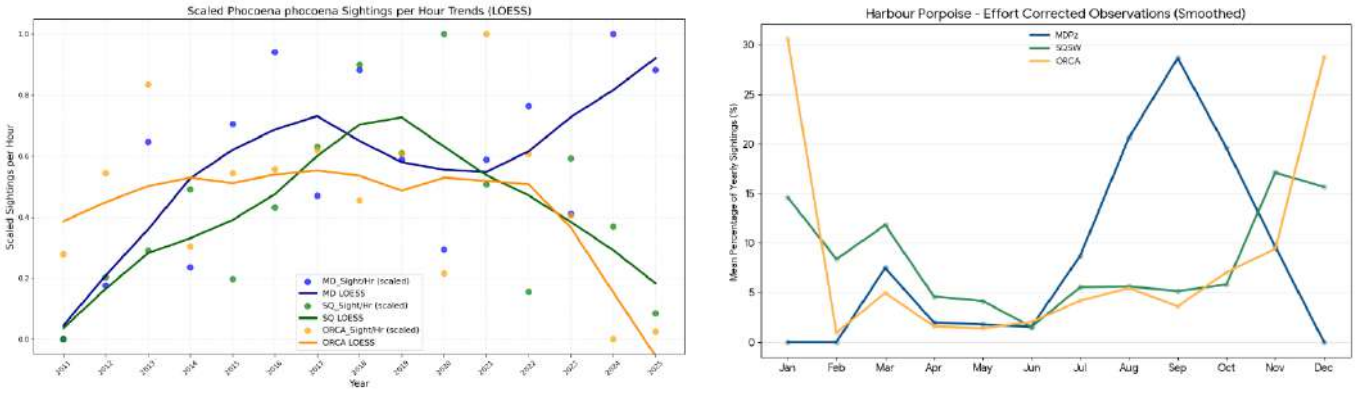

Figure 12.5. Effort-corrected sightings per hour of *P.phocoena* from three datasets—MD, SQ, and ORCA—over the years 2011 to 2025. Each dataset's sightings are scaled between 0 and 1 to enable direct comparison of trends, regardless of differences in raw sighting rates. The individual data points represent annual scaled values, while the LOESS smoothed curves illustrate the overall trends for each dataset. The right plot shows seasonal changes in presence in the three datasets is shown ORCA (orange), MD (blue) and SQ (green). The mean observations per unit effort for each month is calculated across the years. The percentage value each month contributes to the total is displayed for each dataset.

The left plot (Figure 12.5) displays the long-term, LOESS-smoothed trends of scaled *Phocoena phocoena* (harbour porpoise) sightings per hour over a fifteen-year period across three data sources: Marine Discovery Penzance (MD), Seaquest South West (SQ), and Organisation Cetacea (ORCA). The three datasets reveal distinctly different trajectories over time. The MD LOESS curve (dark blue) shows a strong and steady long-term increase; despite a minor dip between 2017 and 2021, it experiences a sharp upward surge in recent years, peaking at its highest point by 2025. In contrast, the SQ LOESS curve (dark green) demonstrates a gradual rise from 2011 until it peaks around 2018–2019, after which it enters a continuous, pronounced decline through 2025. The ORCA LOESS curve (orange) remains the most stable for the majority of the timeline, maintaining a relatively flat, intermediate plateau from 2013 through 2022. However, after 2022, the ORCA sightings drop drastically, plummeting to the lowest recorded level by 2025. Collectively, the data shows that while porpoise sightings per hour have surged in the MD dataset, they have significantly diminished in both the SQ and ORCA datasets over the last few years.

The right plot (Figure 12.5) illustrates the effort-corrected, smoothed mean percentage of yearly Harbour Porpoise sightings across the months, highlighting clear seasonal variations that differ drastically by dataset. The MDPz dataset (blue line) exhibits a highly concentrated, late-summer seasonality; sightings are virtually non-existent from January to February, rise gradually through the spring, and then spike sharply to a major peak in September, where they account for nearly 30% of the entire year's sightings before crashing back to zero by December. Conversely, the ORCA dataset (yellow line) shows a complete inversion of this pattern, operating as a winter-dominated trend. ORCA sightings peak massively in January and December at roughly 30%, but drop precipitously during the spring and summer, hitting a floor of less than 5% between April and September. The SQSW dataset (green line) presents a more intermediate, bimodal distribution; it features a notable winter presence in January (15%), a secondary spring bump in March (~12%), a prolonged summer lull, and a late-autumn resurgence peaking in November (~17%). This reveals a striking spatial or temporal partitioning, where MDPz captures a strict late-summer/autumn presence, while ORCA and SQSW primarily capture winter distributions.

The concurrent surge in the spatially constrained MD dataset during its sharp September peak, alongside the multi-year declines in the broader ORCA and SQ areas, suggests that Harbour Porpoises are experiencing a seasonal habitat contraction, increasingly concentrating within smaller geographic zones during late summer and autumn.

Bottlenose Dolphin *Tursiops truncatus*

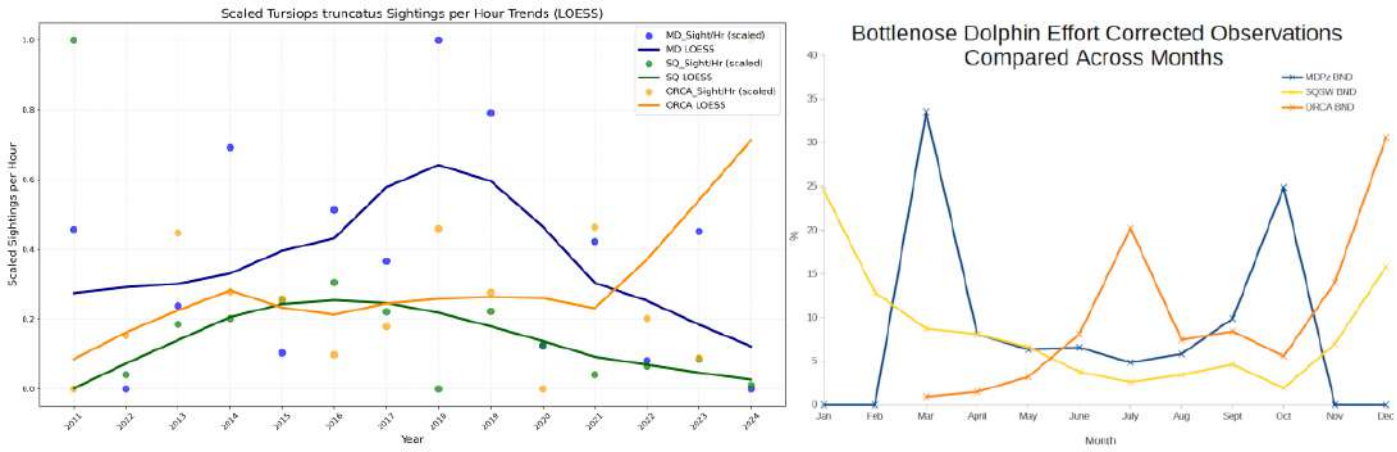

Figure 12.6. Plots of effort-corrected number of sightings and seasonal patterns for *T. truncatus*.

Effort-corrected observations of Bottlenose Dolphins showed contrasting patterns across the three datasets between 2011 and 2025. Marine Discovery Penzance data indicate a marked decline in sightings in recent years, with no observations recorded during late autumn in 2024–2025. In comparison, Seaquest south-west data suggest that Bottlenose Dolphins continue to occur year-round in coastal waters, although sightings remained variable between seasons and years. Seasonal trends also indicated that coastal Bottlenose Dolphins are now less frequently encountered in western inshore waters during the summer months.

In contrast, ORCA data showed an increase in offshore Bottlenose Dolphin observations, particularly during the summer and winter months, with 2025 recording the highest relative sighting rates within the dataset. These

differing seasonal and annual trends may reflect variation between coastal and offshore ecotypes, alongside broader changes in habitat use, prey distribution, environmental conditions, or survey coverage. Together, the datasets highlight the value of long-term, multi-platform monitoring in improving understanding of regional bottlenose dolphin distribution and movement patterns.

Common Dolphin *Delphinus delphis*

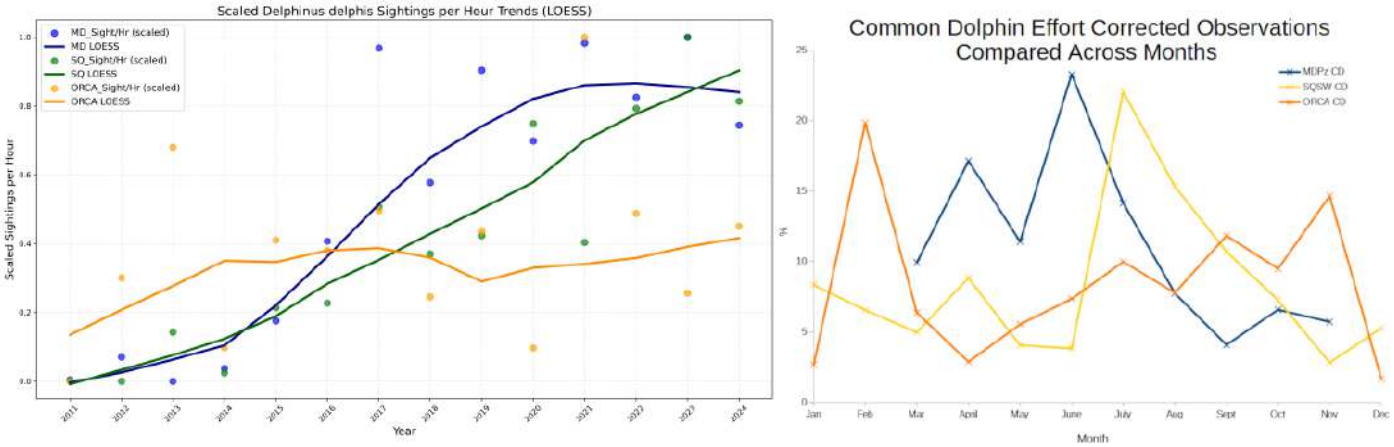

Figure 12.7. Plots of effort-corrected number of sightings and seasonal patterns for *D. delphis*

Effort-corrected observations in the MDPz and SQSW datasets showed a general trend of increasing observation rates for common dolphins. However, the SQSW dataset showed a decline in observations following a peak in 2023, with lower observation rates recorded in 2024 and 2025. The ORCA dataset showed a more stable observation rate between 2011 and 2023, followed by a decline towards 2025.

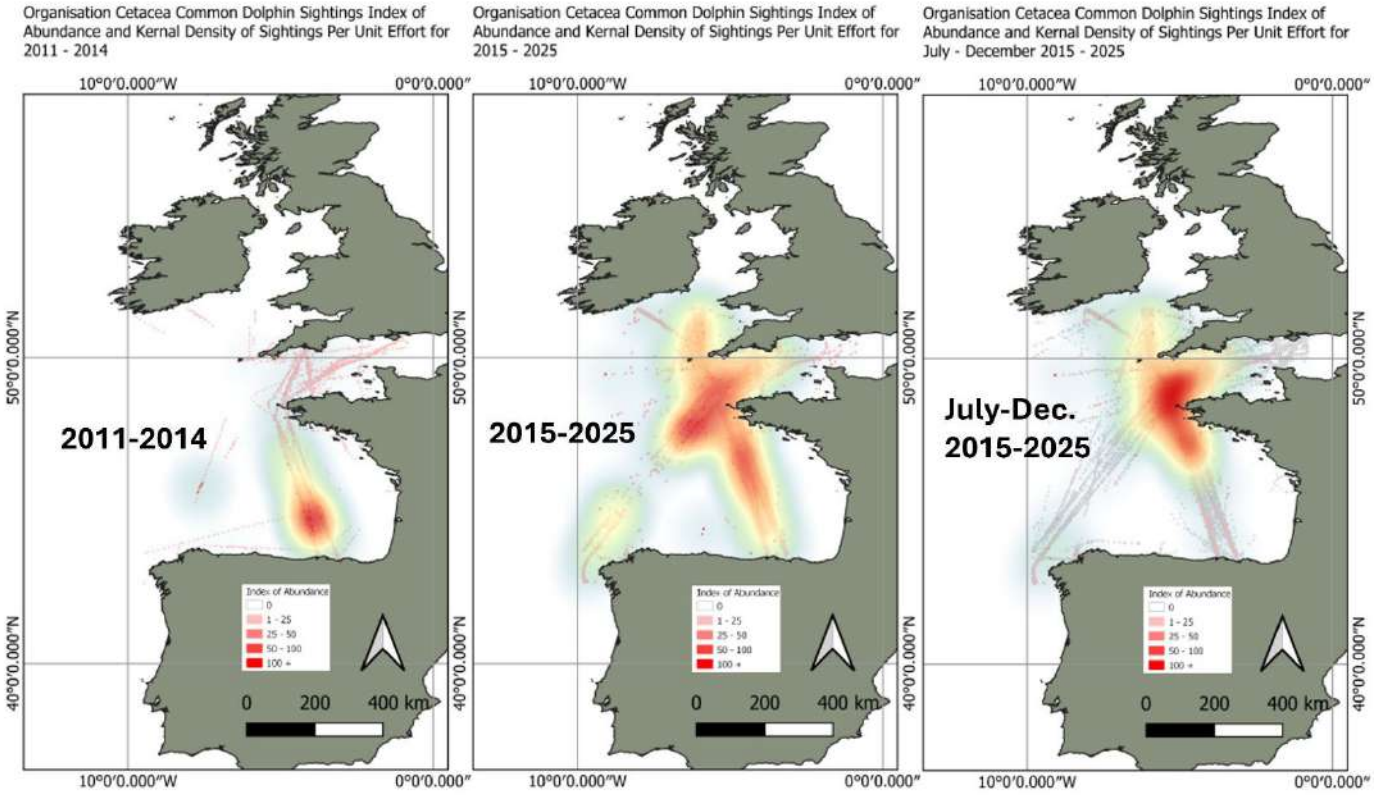

Figure 12.8. Changes of distribution of *D. delphis* in Bay of Biscay between 2011 and 2025

Figure 12.8 illustrates a northward shift in Common Dolphin observations within the ORCA dataset in the Bay of Biscay since 2015. The far-right panel shows that the highest observation rates during the second half of the year since 2015 have been concentrated off Brittany and within the Western Approaches. The ORCA data therefore indicates both a clear northward and coastal shift in the distribution of Common Dolphins during the summer, autumn and winter months.

The observed northward and coastal shift in Common Dolphin distribution may be associated with seasonal changes in the distribution and abundance of clupeid prey species. Clupeid species spawn in the summer and autumn/winter. Following spawning juvenile and forage aggregations remain concentrated in productive shelf and coastal waters during summer, potentially increasing prey availability for common dolphins.

Risso's Dolphin *Grampus griseus*

Figure 12.9. A Risso's Dolphin breaching in Mount's Bay, Cornwall. Image: Hannah Wilson.

The MDPz and ORCA datasets show relatively flat trend lines, reflecting strong inter annual fluctuations in observation rates. The SQSW dataset showed lower observation rates until 2022, followed by three consecutive years of high observation rates, resulting in a pronounced upward trend within this dataset.

Historically, the presence of Risso's Dolphins exhibited biennial peaks and declines, likely linked to the two-year life cycle of cuttlefish, an important prey species. However, increasing sea temperatures may have accelerated cuttlefish spawning cycles, making this two-year pattern less distinct than previously observed. In addition, large numbers of common octopus have been recorded in the region since 2024–2025, providing an additional prey source for Risso's Dolphins. This likely explains the apparent shift from biennial peaks in observations to a more consistent annual presence.

The elevated observation peaks within the SQSW dataset are likely due to its coastal focus, as these nearshore areas represent important feeding habitats for Risso's Dolphins.

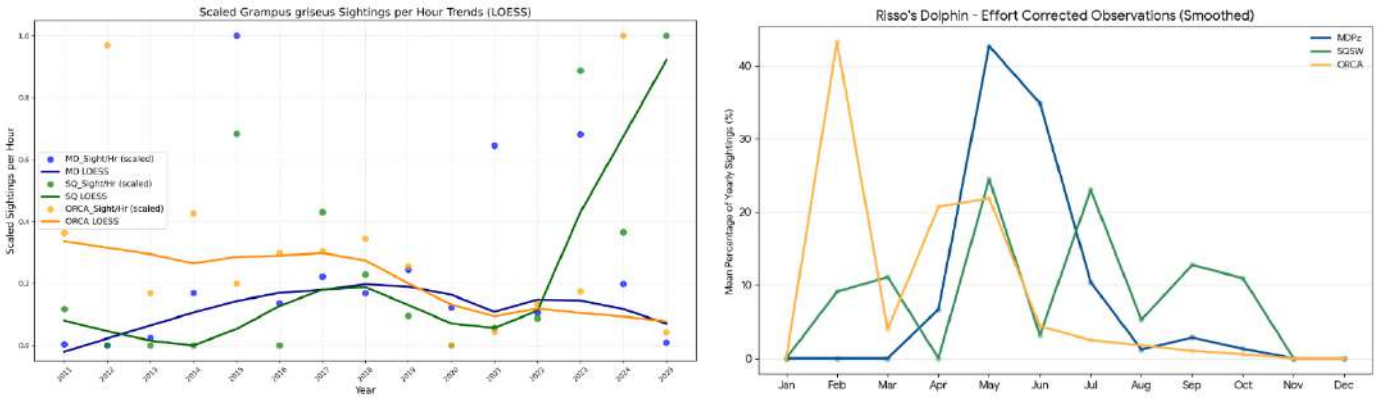

Figure 12.9. Plots of effort-corrected number of sightings and seasonal patterns for *G. griseus*

Other species

Orcas were recorded off the Isles of Scilly in July and October 2025. They were identified as Freya and Valkyria by Sarah Matthews and her colleague Bryher (Dolphin Zone). Assumed to be the last of their pod, they differ from the Iberian ecotype despite being registered there. ORCA surveys also detected White Beaked Dolphins, Atlantic White Sided and Striped Dolphins, Northern Bottlenosed Whales and Orca.

Figure 12.10. Iberian Orcas photographed off Isles of Scilly BBC news article. Young, L. (2025) *Iberian orca seen for first time in Cornish waters*. BBC News, 10 July. Available at: BBC News article (Accessed: 20 May 2026).

Cetacean Acoustic Trend Tracking – CATT Short Term Patterns

CATT gathered six years (2,207 days) of 2025 south west acoustic data from 14 sites off Somerset, North and South Devon, and Cornwall. With a similar amount of data still to be gathered / released.

Porpoise prevalence in 2025 is highest in the Bristol Channel. The Algapelago seaweed farm off Clovelly holding on to its top spot showing the highest activity with detections in 11.25% of minutes.

An F-POD from the Algapelago site off Clovelly was trawled up on 23rd October and thrown overboard. The F-POD recorded as it drifted for 21 days from North Devon to Bury Port, South Wales. This F-POD recorded, 68 days in total, it showed the proportion of Porpoise to Dolphin detections in the southern half of the Bristol Channel during November 2025 was 94% Porpoise, 6% Dolphin.

In the northern half of the Bristol Channel, the proportion of Porpoise to Dolphin detections was 33% Porpoise, 67% Dolphin.

2025 coastal Dolphin detections were similar to 2024: higher in the winter months and Dolphins were more acoustically active at night.

Average Dolphin detections off the North coast: 4.4% of minutes and, off the south coast, 14% of minutes.

Offshore Dolphin prevalence through the Autumn and Winter of 2025 was high, with detections in 44% of minutes.

Offshore Porpoise activity was very low: detections in 0.42% of minutes.

Dolphins were continuing to explore the Fal River and the Fowey River through the winter months.

Porpoises were only rarely detected in the rivers during winter.

A single dolphin was occasionally detected between November 2024 and February 2025 in the Fowey River: this may be the animal that later stranded. At the same spot through the Winter 2025 – 2026 a small pod of dolphins was detected a number of times passing the Bodinnick Pontoon.

2025 detections in four SW areas with proportion of Dolphin / Porpoise classified click trains:

Offshore prevalence	**South Coast prevalence**	**Estuary prevalence**	**North Coast prevalence**
Dolphin 98%	Dolphin 76%	Dolphin 100%	Dolphin 33%
Porpoise 2%	Porpoise 24%	Porpoise 0%	Porpoise 67%

- The southern Bristol Channel seems to be a significant area for Harbour Porpoises.
- The trend for Common Dolphins to repopulate the rivers and estuaries during winter is continuing.
- Historically, Harbour Porpoises resided more in the estuaries, this behaviour is less common.

- The Seaweed farm off Clovelly doesn't appear to displace Porpoises from that area.
- Offshore Dolphin detections were high in 2025.

Mysticetes (baleen whales)

Minke Whale *Balaenoptera acutorostrata*

Figure 12.11. A juvenile minke whale surfacing. Image: Hannah Wilson.

Minke whale observation rates have shown an increasing trend in the MDPz dataset. The SQSW dataset showed an increase culminating in a peak in 2022, followed by a reduction in observation rates since 2023. The ORCA dataset shows a gradual decline in observation rates. This may indicate a shift towards more coastal waters for this species during periods of peak occurrence. The ORCA data were collected over a much wider area, with the majority of survey effort occurring further offshore.

All three datasets show a distinct summer peak in sightings, although the ORCA dataset shows a later peak in October. The peak summer presence suggests that minke whales move into southwest coastal waters to exploit summer spawning fish, such as clupeids, similarly to common dolphins before moving further offshore in the late autumn.

Minke whales are a difficult species to detect in higher sea states, and this has not been fully accounted for in the preparation of these data. It is therefore important to consider that this 'nuisance variable' may be influencing the results to some extent.

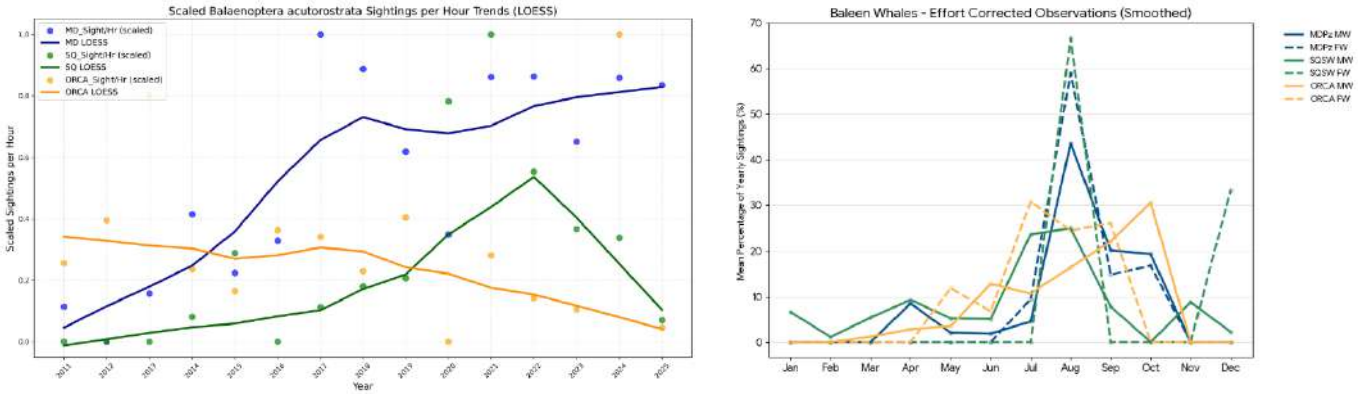

Figure 12.12. Plots of effort-corrected number of sightings and seasonal patterns for *B. acutorostrata*.

Fin Whale *Balaenoptera physalus*

Figure 12.13. A Fin Whale surfacing in Mount's Bay, Cornwall. Image: Hannah Wilson.

Fin Whale observation rates have shown an increasing trend in the MD (MDPz) dataset, particularly accelerating after 2022. The SQ (SQSW) dataset shows a similar pattern, remaining at zero for over a decade before experiencing a sharp, substantial increase from 2022 through to 2025. Conversely, the ORCA dataset shows a different trajectory: after a gradual rise that peaked around 2021–2022, it has experienced a steady decline in observation rates down to near-zero levels by 2025.

This divergence may indicate a shift towards more localized coastal waters for this species in recent years. Because the ORCA data were collected over a much wider area, with the majority of survey effort occurring further offshore, the drop in ORCA sightings paired with the surge in MD and SQ data suggests the population may be concentrating closer to the coast particularly in summer and autumn.

Seasonally, the datasets show a highly synchronized and distinct summer peak in sightings, with a dramatic surge across multiple datasets in August. However, minor variations exist; for instance, the ORCA MW dataset shows a secondary, later peak in October. This concentrated late summer presence suggests that fin whales move into these specific survey zones to exploit seasonal prey pulses before largely departing or shifting distributions by late autumn and winter.

It is worth noting that Fin Whales can be challenging to detect in adverse weather and higher sea states. Because these environmental 'nuisance variables' have not been fully accounted for or smoothed out across all effort corrections in the source data, it remains important to consider that changing sea state conditions over the years or seasons may be influencing these observed trends to some extent.

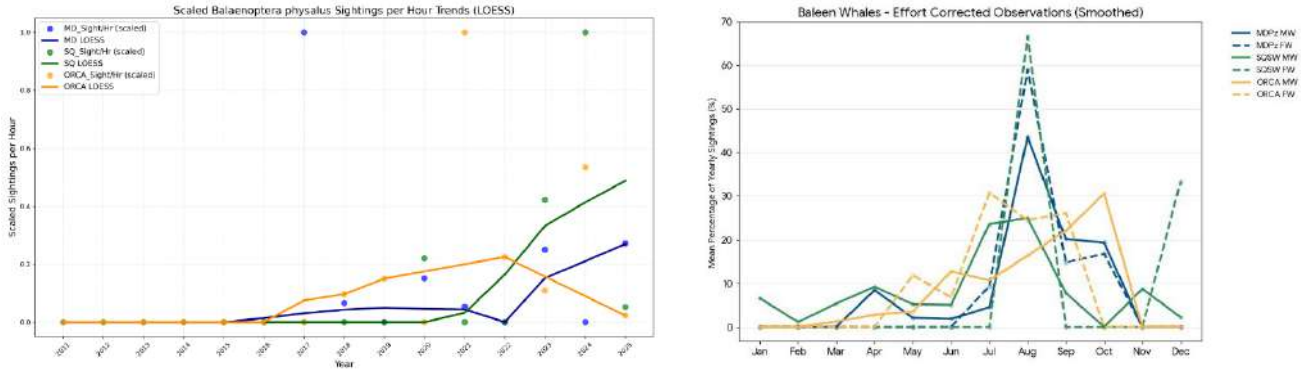

Figure 12.14. Plots of effort-corrected number of sightings and seasonal patterns for *B. Physalus*

Humpback Whale *Megaptera novaeangliae*

Humpback Whales were especially prolific at the beginning of 2025 with one individual consistently seen close to shore on an almost daily basis for a few weeks in Newquay Bay, attracting large crowds to the clifftops from across the country and generating huge public and media attention. The winter months between December to February remain the best season for sightings, however they can seemingly occur at any time of year. December 2025 was notable for the lack of sightings leading into the expected peak and may indicate a poor season for them.

During 2025 there were five different individual whales that were photo-identified by the South West Humpback Whale ID Catalogue, amounting to 38 confirmed identifications between them. Other whales were observed on a number of occasions, but no photos or videos were available that could have confirmed additional identifications and/or individuals.

'Pi': the last confirmed sighting during the previous winter was in early February 2025 at the Isles of Scilly. Returned, apparently early, in mid-November 2025. Now identified as a female from drone footage taken of her underside, this is the first known sex for a living whale in the catalogue. This is the seventh year in a row that Pi has been identified in south-west England (however, she was not identified in the winter of 2019/20 or 2021/22).

'Holan': a smaller whale compared to Pi. They were often seen in proximity of one another at the Isles of Scilly during winter 2024/25.

'Surfrider': the highly prolific whale that drew large crowds to Newquay Bay as they were often seen close inshore and sometime exhibiting active surface behaviours such as breaching and fin slapping. This animal was identified at the beginning of January and remained until mid-February.

'Minstrel': had previously visited in winter 2023/24 with the last confirmed identification in early March that year. Minstrel was identified as a second whale inhabiting Newquay Bay at the same time as Surfrider and marks the first known returning visitor to Cornwall.

'Mo': identified only once in the middle of the 2024/25 winter season.

Figure 12.15: Holan (Image: Martin Goodey) and **Figure 12.16:** Surfrider (Image: Adrian Langdon).

Cetacean Strandings

Live strandings

Figure 12.17: Common dolphin, Lostwithiel (Gavin Parsons)

There were a number of interesting live strandings of cetaceans in 2025, overall amounting to a busy year for the region, broken down as follows (Table 12.1). Notable events were a common dolphin far inland at Lostwithiel that was successfully relocated and satellite tagged, showing survival post-release. Another similar situation further downriver later in the year had similar results and was tracked into Dorset over two weeks.

Table 12.1. Live cetacean strandings in 2025.

	Devon	Dorset	Cornwall	Isles of Scilly	Somerset
Common dolphin	1	0	5	0	1
Risso's dolphin	0	0	2	0	0
Long-finned pilot whale	0	0	1	0	0
Fin whale	0	0	1	0	0

Figure 12.18. Risso's Dolphin, Porthluney Cove. Image: Natalie Arrow.

Figure 12.19. Long-finned Pilot Whale, Gwithian. Image: Dan Jarvis.

Figure 12.20. Bycaught Harbour Porpoise. Image: Photo by Chris Trew.

Risso's dolphins rarely live strand, so two in one year was noteworthy and likely a reflection of the increased presence of this species in the region during recent years. One of the animals was photo-identified by the Sea Watch Foundation and Risso's Dolphin ID Project as having been sighted in Anglesey during 2020 and 2022.

The pilot whale (Table 12.1) was refloated, but restranded and was found deceased the next day. Meanwhile, the fin whale (Table 12.1) was found to be an unweaned calf that was separated from her mother, starved and weak. She was successfully euthanised using a method never before tried in the UK.

Other strandings

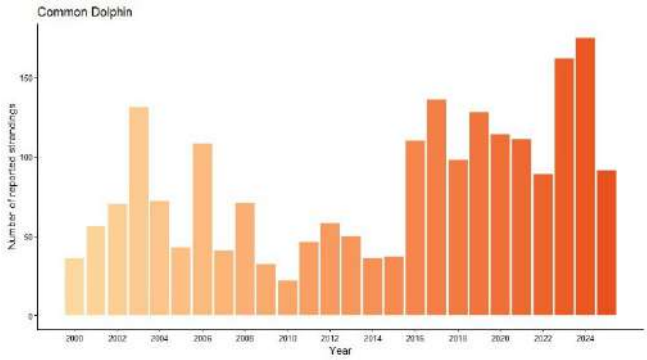

Figure 12.21. Common Dolphin strandings by years.

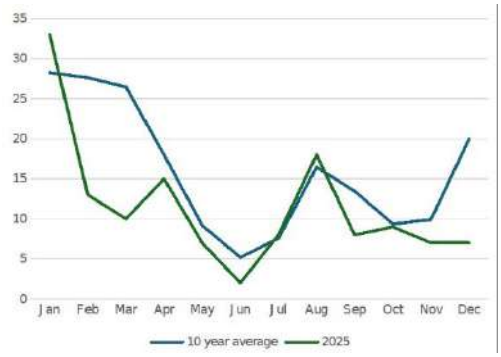

Figure 12.10. Cetacean strandings by month.

Data is based on strandings reported to the Cornwall Wildlife Trust's Marine Strandings Network (MSN). In total 19 species of cetacean were recorded in the MSN database, on average six to seven species are reported per year. In 2025, seven species were recorded (see Table 12.1) comprising 137 individuals, notably lower compared to previous years (for the last decade on average 208 individuals a year have been recorded stranded). Common Dolphins continue to be the most commonly recorded species (see Figure 12.20).

The annual pattern was similar to previous years (Figure 12.22) less strandings than average for February, March and December and showing the August peak which has been apparent in the last decade.

Bycatch remains a major cause of death for those animals which can be assessed (via PME or the Bycatch evidence evaluation protocol) averaging 24% of cases a year. Of all common dolphins taken for PME for the last 10 years 39% show evidence of having been bycaught.

Notable cases for 2025

A male Risso's dolphin which stranded was found to have pseudo-mammary slits, a review of the records for previous strandings found seven other males exhibiting pseudo-mammary slits and James Barnett is now preparing a paper detailing the characteristic.

A young maternally dependent fin whale live stranded in November and sadly had to be euthanised. Post mortem examination showed it may have had underlying health issues which may have led to the stranding.

We had two harbour porpoise strandings which were of note. One showed evidence of having been attached by bottlenose dolphins which has become a rarer occurrence over the last 10 years since the inshore resident pod become more transitory. The other was a pregnant female near the end of her term which had been bycaught (Figure 12.20).

Table 12.2. Cetacean strandings in 2025.

Common Dolphin 91	Risso's Dolphin 3	Bottlenose Dolphin 1	Fin Whale 1
Harbour Porpoise 13	Pilot Whale 2	Cuvier's Beaked Whale 1	

□

13. Marine Planning

Edited by: Chloe Boyle, Rosie Bailey & Mark Maguire (with a summary description of Wildlife Licensing developments by Hope Armstrong and Zoe Trott, an update on Wind Development from the Strategic Renewables Unit provided by Oliver Goldsmith and Evangeline Wilby, Marine Licensing data provided by Jamie Short).

Contacts: planning@marinemanagement.org.uk

Conclusions

This report emphasises work that was ongoing in the Marine Management Organisation (MMO) during 2025.

- Marine planning in the south-west is essential to manage the increasing demands on marine space. The vision for the South West Marine Plan will be achieved through objectives derived from high-level marine objectives (HLMOs) set out in the UK Marine Policy Statement.
- The first three-year report on the South West Marine Plan was published in 2025 encompassing data from 2021-2023. MMO will start data collection this summer for the second three-year report which is due for sign off by the Secretary of State and published in summer 2027.
- Five new evidence projects were published. These can be viewed on the MMO evidence projects register.
- 54 marine license applications were submitted, with 13 granted, 26 rejected, two withdrawn and 13 still in progress by the end of 2025.
- 11 wildlife licences were granted or renewed, with nine granted for science and educational purposes in relation to seahorse and seagrass research, bird ringing, and trialling of bycatch mitigation devices. Two wildlife licences were granted for rescue activities for seals, and for protection of animal health or public safety.
- In August 2025, White Cross wind farm was consented as a test and demonstration site, consisting of six to eight floating turbines with a capacity of 100MW, 52km off the coast of Devon. Offshore installation of the wind farm is currently planned for 2028.

Marine Planning Context

As the marine environment becomes progressively busier and the demand for resources increases, strategic management needs to be in place.

Marine planning ensures that the right activities happen at the right time and in the right way, placing sustainable development at the centre of all decisions.

Marine plans provide policy and spatial guidance for each marine plan area, promoting co-existence of suitable activities to account for the multidimensional boundaries of the marine environment.

The marine plans are statutory and are prepared in accordance with the requirements set out under the Marine and Coastal Access Act (MCAA) 2009 and the UK Marine Policy Statement. Marine plans are applied through the decisions made by public authorities. Decisions that these authorities make need to be in line with section 58(1) and section 58(3) of MCAA.

- Section 58(1) states that “a public authority must make any authorisation or enforcement decision in accordance with the appropriate marine policy documents, unless relevant considerations indicate otherwise”.
- Section 58(3) requires all public authorities making other decisions which are not authorisation or enforcement, but can still affect the marine area, to “have regard to” the Marine Policy Statement and marine plans.

- Section 58 (5) provides an exemption for authorisation and enforcement decisions on applications for development consent for Nationally Significant Infrastructure Projects (NSIPs). In these cases, the decision-maker– the relevant Secretary of State – must have regard to marine policy documents (marine plans and the Marine Policy Statement).

South West Marine Plan

The South West Marine Plan was one of four marine plans developed concurrently between 2016 and 2021. The South West Marine Plan covers the English inshore and offshore waters between the Severn Estuary border with Wales and the River Dart in Devon. The South West inshore marine plan area spans approximately 2,000 km of coastline and covers a total sea area of 16,000km^2. The South West offshore marine plan area covers a vast expanse of 68,000km^2 and extends from 12 nautical miles to the outer limit of the UK Exclusive Economic Zone (Figure 16.1). As a result, this makes the south-west region the largest among England's marine plan areas.

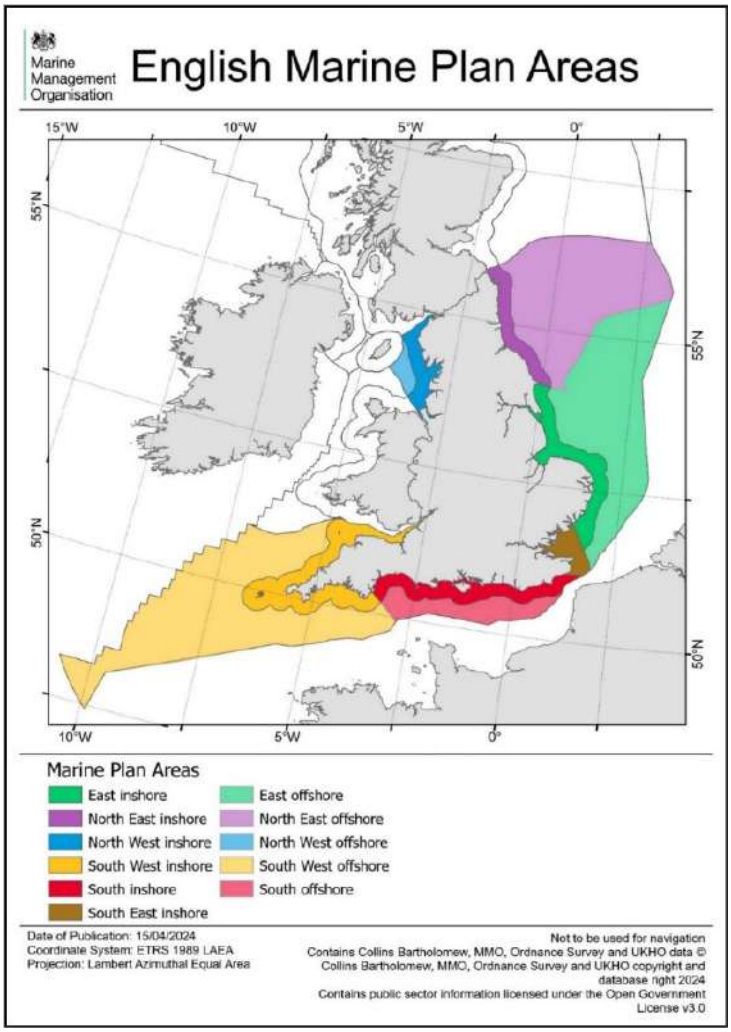

Figure 16.1 Marine Plan Areas in English Waters.

High Level Marine Objectives:

The vision for the South West Marine Plan will be achieved through the marine plan objectives (Table 16.1). Relevant High Level Marine Objectives (HLMOs) set out in the UK Marine Policy Statement are used as the plan objectives. The HLMOs encompass the full scope of sustainable development, integrating principles of a sustainable marine economy, a strong, healthy, and just society, and living within environmental limits. The objectives have been shaped by extensive engagement with stakeholders and government throughout the planning process, incorporating lessons learned from earlier marine plans.

The objectives are further tailored to the South West Marine Plan areas through the policies that will apply to individual decisions, and the evidence base that supports marine plan use. These objectives establish a critical link between the issues faced in the marine plan areas, the envisioned future for these areas, and the policies developed to realise this vision.

Policies:
There are 55 policies within the South West Marine Plan. These policies cover economic, environmental and social policies to encompass all aspects of the marine area which help to deliver the HLMOs.

Table 16.1 Objectives of the South West Marine Plan.

Achieving a sustainable marine economy	
1	Infrastructure is in place to support and promote safe, profitable and efficient marine businesses.
2	The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future.
3	Marine businesses are taking long-term strategic decisions and managing risks effectively. They are competitive and operating efficiently.
4	Marine businesses are acting in a way which respects environmental limits and is socially responsible. This is rewarded in the market place.
Ensuring a strong, healthy and just society	
5	People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and can act responsibly.
6	The use of the marine environment is benefiting society as a whole, contributing to resilient and cohesive communities that can adapt to coastal erosion and flood risk, as well as contributing to physical and mental wellbeing.
7	The coast, seas, oceans and their resources are safe to use.
8	The marine environment plays an important role in mitigating climate change.
9	There is equitable access for those who want to use and enjoy the coast, seas and their wide range of resources and assets and recognition that for some island and peripheral communities the sea plays a significant role in their community.
10	Use of the marine environment will recognise, and integrate with, defence priorities, including the strengthening of international peace and stability and the defence of the United Kingdom and its interests.
Living within environmental limits	
11	Biodiversity is protected, conserved and, where appropriate, recovered, and loss has been halted.
12	Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.
13	Our oceans support viable populations of representative, rare, vulnerable, and valued species.

Where we are in the planning cycle in the SW

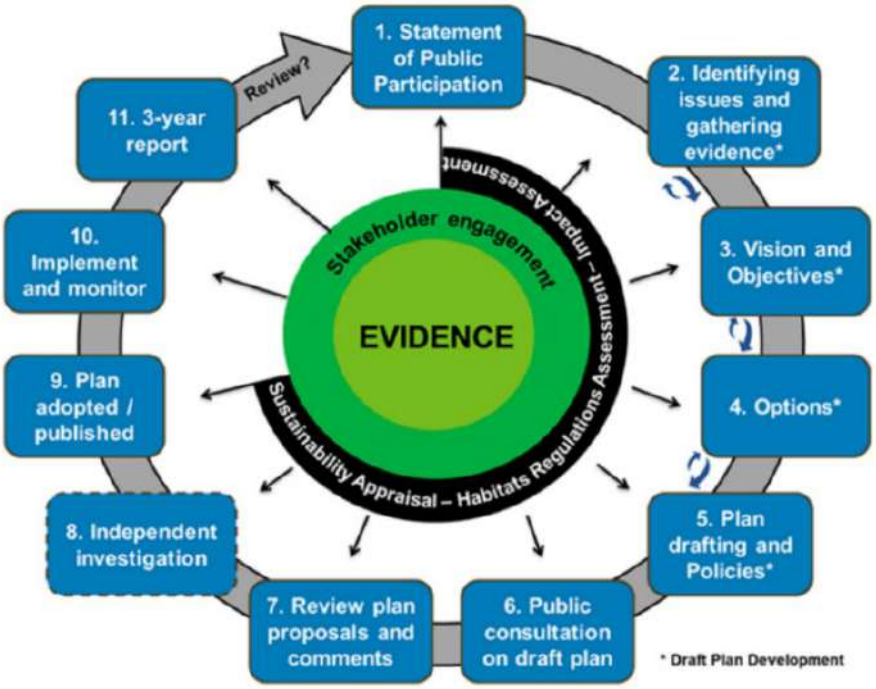

Figure 16.2 Marine Plan Reporting cycle.

Since adoption in 2021, the Marine Planning team are undergoing implementation and monitoring work where we support people's understanding and use of marine plans through training sessions and continue work to monitor, evaluate and report on the marine plans.

The MMO is required to report to parliament on the progress of the marine plans every three years. This includes:

- If and how the South West Marine Plan is being used
- How effective marine plan policies are
- The effectiveness of marine plan policies in progressing the South West Marine Plan objectives and UK Marine Policy Statement high level marine objectives which we measure progress against.

We use a range of primary and secondary data to inform our monitoring of the marine plans. This includes stakeholder surveys to understand how marine users use the marine plan and its policies, and the perceived effect of the marine plan policies in the south-west.

Three-year reports include a recommendation to the Secretary of State, based on the evidence set out in the report, whether to retain, amend, or replace the South West Marine Plan.

Evidence Projects

The MMO commissions several evidence projects each year. These projects aim to inform the MMO's approach to protecting and enhancing our marine environment and supporting UK economic growth by enabling sustainable marine activities and development. Evidence underpins all plan development and processes, ensuring decisions taken in the preparation of adopted marine plans are evidence-based, while evidence is also used in monitoring plan implementation and effectiveness.

Table 16.2 shows a list of evidence projects completed during 2025. All published and ongoing evidence projects can be found on the evidence projects register, and the partnership projects which the MMO is currently involved with can be found here. Topics addressed by ongoing projects reflect the MMOs current priorities, while the reports themselves often contain recommendations regarding priorities for future work in specific topics. Additionally, the MMO has a publicly available evidence needs register available online at Evidence requirements - GOV.UK.

If you are interested in submitting evidence please contact the evidence team at planningevidence@marinemanagement.org.uk.

Table 16.2 Evidence Projects completed in 2025

Title	Description
Considerations of Nature Based Solutions in Marine Licensing {MMO1388}	To understand the opportunities to enable nature-based solutions (NBS) through the marine licensing service and consider the extent to which the licensing of NBS the licensing service could be evaluated.
A local approach to decision-making for marine planning: a spatial framework for a pilot phase in North West England {MMO1432}	This project developed an approach to identify smaller spatial scales for a potential local marine plan pilot, using various types of data i.e. marine activity data, population density, and information about stakeholder engagement and existing plans and strategies. The approach was applied in the North West Marine Plan Area and this report presents the findings.
Review of Marine Planning Evaluations {MMO1332}	To independently review the Marine Planning evaluation process to support statutory reporting requirements. This includes the implementation of a training programme under MMO1443.
Mapping important areas for the UK and non-UK 12-metre and over fishing fleets, Phase 3 {MMO1467}	Updates and expands previously unpublished work identifying and mapping important areas for fishing activity. This project includes more recent data and additional analyses and includes the UK and non-UK 12-metre and over fleets.
Feasibility of a Potential Emergent Octopus fishery {MMO1440}	This project seeks to investigate the potential viability of a targeted octopus fishery in southwest England and explore potential management measures associated with any such fishery.

Marine Planning Information and Requests

For any questions you might have about the South West Marine Plan or marine planning in general, please contact the Marine Planning team via planning@marinemanagement.org.uk.

If you would like to receive regular updates about marine planning and subscribe to the MMO's marine planning newsletter, please sign up to the MMO mailing list.

Marine Licensing in the South West:

The marine licence process is plan led and requires that proponents complete a marine plan policy assessment to show they have considered the marine plans in their licensing application. This process is described in the following video: Marine Plan Policy Assessment in decision-making.

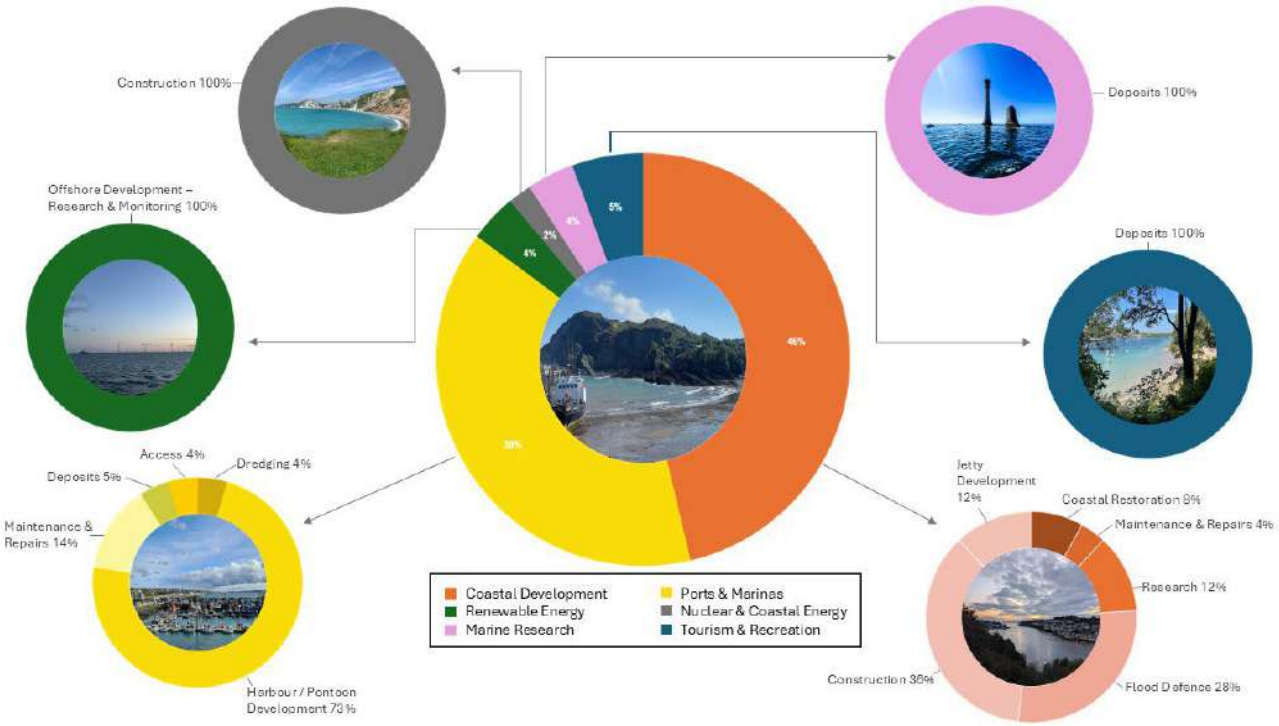

Figure 16.3 Marine licenses applied for in the South West Marine Plan area 2025.

There was a total of 54 licence applications in 2025 and, as seen in Figure 16.3, these can be grouped into six sectors: Coastal Development, Ports and Marinas, Renewable Energy, Nuclear & Coastal Energy, Marine Research, and Tourism & Recreation.

Out of 54 applications in the South West Marine Plan area, 26 were rejected, two were withdrawn, 13 were approved and 13 were still in progress at the end of 2025 (see Figure 16.4).

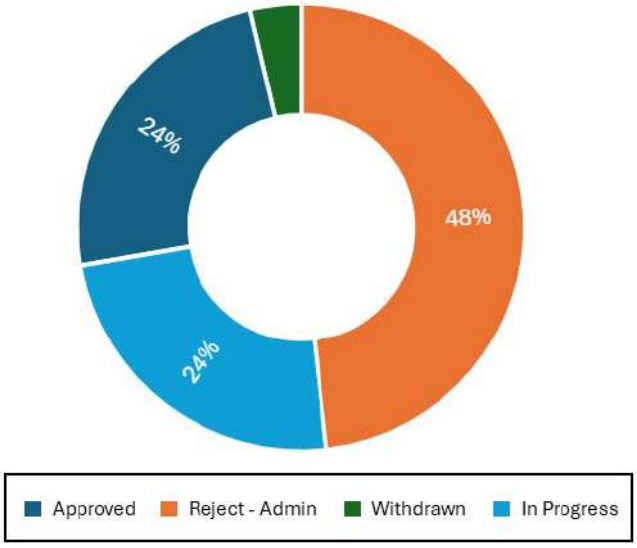

Figure 16.4 Licence decision status as of the end of 2025 calendar year.

Wildlife Licensing

The MMO is responsible for wildlife licensing of activity in English territorial seas, and on land for seals. Natural England is responsible for wildlife licensing in other parts of England. Please see MMO's website for further information on marine species and wildlife protection. Wildlife licenses are only issued for specific purposes which are set out in legislation. For example, a provision under the Wildlife and Countryside Act 1981 allows licenses to be granted for scientific or educational purposes.

South West Marine Plan Area – 2025 Wildlife Licence Summary

In 2025, 11 wildlife licences were granted or renewed in the South West Marine Plan area. Nine wildlife licences were granted for science and educational purposes in relation to seahorse and seagrass research, bird ringing, and trialling of bycatch mitigation devices. Two wildlife licences were granted for rescue activities for seals, for protection of animal health or public safety.

Strategic Renewables Unit Offshore Wind Development

The acceleration of offshore wind is key to meeting our net zero commitments, the 2024 'Clean Power 2030 Action Plan' highlights that between 43 and 50GW of offshore wind could be installed in UK waters by 2030.

The South West Marine Plan area is important for the development of offshore wind. Leasing Round 5 in the Celtic Sea will produce 4.5GW of capacity. Celtic Sea project development areas 1,2,3 are currently in pre-application phase. The South West Marine Plan area contains project development area 1 and a proportion of project development area 2. Crucially, these projects will be floating offshore wind farms (FLOW), an innovative technology that allows projects to use deeper water sites, by mounting wind turbines to buoyant platforms that are moored on the seabed.

In August 2025, White Cross wind farm was consented as a test and demonstration site, consisting of 6-8 floating turbines with a capacity of 100MW, 52km off the coast of Devon. Offshore installation of the windfarm is currently planned for 2028.

The Strategic Renewables Unit at the MMO is a strategic rather than a regionally specific team. Areas the team are working on and are involved in that are relevant to the south-west include:

- SRU are creating a Deemed Marine Licence (DML) framework – this will include a DML framework for FLOW which will be provided to developers to assist with drafting their application.
- SRU directly feeds into the Defra led Offshore Wind Environmental Standards (OWES) workstream for Leasing Round 5. There are currently 10 proposed OWES measures specifically tailored for leasing round 5, these cover a range of receptors and offshore wind farm components that developers would need to consider in their DCO applications if accepted.
- SRU support management of underwater noise in the Southern North Sea SAC. The Bristol Channel approaches is also a designated SAC for harbour porpoise. SRU will be working to understand how the work in the Southern North Sea SAC work might be relevant to the Bristol Channel SAC and will therefore be keeping up to date with developments in this area.
- SRU input into Defra's strategic monitoring workstream. Any development of Regional Advisory Groups for strategic monitoring would apply to southwest region, for aligned and coordinated monitoring of offshore wind in the area.
- SRU are involved in multiple streams of work related to Defra's Marine Recovery Fund and Strategic Compensation. Defra's teams are engaging with protected areas officers' group on strategic compensation.

Marine Planning Information Sheet for South West Marine Ecosystems

This information sheet provides SWME members with a clear and accessible overview of key documents, resources, and tools related to marine planning in the south-west.

South West Marine Plan Monitoring reports: The Marine and Coastal Access Act 2009 requires monitoring and reporting on the marine plans every three years. The first three-year report on the South West Inshore and Offshore Marine Plan reports on the period from June 2021 to June 2024, informed by data collected from June 2021 to June 2023.

- The next three-Year Report on the South West Marine Plan will be prepared for the period from June 2024 to June 2027. MMO will be collecting data and preparing this report during the second half of 2026, ready for sign off by the Secretary of State and publication in summer 2027.

The Approach to Monitoring – This document has been published alongside the marine plans and details the MMO's process for monitoring marine plans. It sets out why the MMO are monitoring marine plans, provides background on the approach being taken and explains how monitor occurs (with examples). This document presents a framework, against which progress towards the impacts of a marine plan can be monitored. This document is of interest to all those involved with developing and using marine plans on a day-to-day basis including Local Planning Authorities.

Supporting documents to request:

The Annex of Indicators – This document provides detailed descriptions of the individual indicators the Marine Planning team develop and use to monitor and evaluate the marine plans. This document also provides a summary of the approach to monitoring including how indicators were initially identified. Please contact planning@marinemanagement.org.uk to request a copy as this is a live, working document that evolves with available evidence and understanding.

The Underpinning Information documents support the published monitoring reports, providing a detailed account of the MMO Marine Planning team's monitoring and evaluation findings for each marine plan area over the three-year reporting period, and informing the preparation of those reports. If you are interested in looking into the reporting of specific data or indicators relating to particular marine plan policies this would be a good place to find a breakdown of this information. To request this document, please contact planning@marinemanagement.org.uk.

The MMO's Marine Planning team have national policy leads which specialise on the 55 marine plan policies that sit within the South West Marine Plan. Should you wish to contact a policy topic lead relating to an area of your interest please email planning@marinemanagement.org.uk to be connected.

14. Development

Editor: **Dan Barrios-O'Neil** Cornwall Wildlife Trust (dan.barrios-oneill@cornwallwildlifetrusrt.org)

Contributors: Dan Barrios-O'Neill, David Whelan, and James Stewart

Conclusions

1. Falmouth Docks redevelopment raises serious contamination concerns. A proposed £150 million expansion of Falmouth Docks would require dredging over 643,000 m³ of sediment containing tributyltin at concentrations up to 176 times regulatory thresholds. Sparse sampling, unmodelled storm conditions and the site's location within the Fal SAC leave significant questions about risks to filter-feeders, fishing grounds, and marine mammals.

2. Celtic Sea becomes a hub for floating offshore wind research Multiple major projects — including JNCC's ProcBe, Natural England's POSEIDON, Plymouth's ECOFlow Frontline, and the Subsea Soundscape Project — are gathering baseline data on seabirds, marine mammals, oceanography, and underwater noise ahead of large-scale floating wind deployment. Meanwhile, the White Cross floating windfarm off North Devon received its offshore marine licence in July 2025, marking a step toward operational projects in the region.

3. Devon and Severn IFCA challenges evidence base of Fingleton Nuclear Regulatory Review. Devon and Severn IFCA has formally responded to the Government's November 2025 Fingleton Review, arguing its case for deregulation relies on flawed evidence from Hinkley Point C, which is projected to kill the equivalent of 4.6 million adult fish annually. The IFCA warns that recommendations to weaken Habitats Regulations and EIA scrutiny could enable future ecological harm if not revisited.

Introduction

This brief chapter gives an overview of a selection of prospective and in-operation marine infrastructure developments in the South-West for 2025, and research related to marine developments in this area. Our focus is on known or potential ecological impacts (positive and negative) with some consideration given to policy and planning if relevant. We will direct readers towards any ongoing consultations and associated resources where relevant. Our intention is not to exhaustively assess all marine developments in the South-West, and we will endeavour to update assessments wherever new evidence becomes available.

1. Falmouth Docks Development - Falmouth Docks and A&P

Background and context: Falmouth Docks is seeking permission for a £150 million redevelopment to accommodate larger cruise vessels and floating offshore wind (FLOW) devices. The project requires dredging at least 643,000 m³ of sediment (one independent estimate from the Cornwall IFCA exceeds 1,000,000 m³) from berth pockets to achieve -10.5m depth, with operations planned over 58 weeks using backhoe dredgers. Ground investigation revealed severe contamination, particularly of tributyltin (TBT), with maximum concentrations of 17.6 mg/kg—176 times above regulatory thresholds. The site lies within the Fal Special Area of Conservation, home to Europe's only remaining wild oyster fishery and extensive maerl beds.

Known or potential ecological impacts include:

Negative: Contamination release from dredged sediments represents the primary ecological risk. TBT and other contaminant concentrations show extreme spatial variability (>7,000-fold differences between locations) and unpredictable depth distribution, with significant contamination found in surface layers and at depth. With only 21 sediment cores across 232,500 m² (approximately one sample per football pitch), the current assessment of contamination extent lacks granularity, with the basis for reliably selecting highly contaminated sediment proposed for landfill unclear. Dredging will resuspend potentially hazardous sediment directly into the water column, threatening filter-feeding molluscs through bioaccumulation. TBT bioaccumulation factors of up to 250,000 have been documented in molluscs, posing particular risks to the Fal's native oyster population and associated fishery.

Sediment plume modelling tested only "typical" March 2021 conditions with no sensitivity analysis for storm events, seasonal variations, or extreme tidal conditions that will inevitably occur during the proposed 58-week period. Uncertainty related to sediment plumes both at the dredge site and the dump site puts fishing grounds and habitats in Falmouth Bay at risk. Underwater noise from 58 weeks of operations poses additional risks to marine mammals, particularly harbour porpoise, common dolphins, and grey seals, which use the Fal estuary system. Pile-driving and construction activities associated with new structures will generate impulsive noise that may cause behavioural disturbance and potential hearing damage to cetaceans and pinnipeds using the area.

Positive: The redevelopment aims to secure long-term viability of existing port operations and support renewable energy infrastructure development. Improved dock facilities could reduce vessel emissions through more efficient operations.

Unknowns: Modern contaminants including PFAS, microplastics, and contemporary antifouling compounds were not assessed, creating significant knowledge gaps. The spatial distribution of TBT contamination hotspots remains poorly characterised due to sparse sampling. Sediment plume transport under storm conditions and seasonal weather variations is unmodelled. The effectiveness of "environmental buckets" and flood-tide-only dredging restrictions in minimising sediment mobilisation requires validation.

Relevant policy and planning information is contained in Marine licence application: MLA/2025/00157 Environmental Statement consultee responses and objections.

2. Offshore wind impact projects - David Whelan

A number of research and monitoring projects are currently being undertaken in the Celtic Sea to examine interactions between floating offshore wind development, seabirds, marine mammals and wider marine ecosystems. These projects focus on gathering baseline ecological data, species distribution information, behavioural evidence and environmental monitoring data to support marine spatial planning, environmental assessments and future consenting processes.

The JNCC ProcBe project focuses primarily on the demographics and behaviour of Manx shearwaters and storm petrels, including foraging range and flight height data. The project is gathering at-sea behavioural evidence to improve understanding of potential interactions between seabirds and offshore wind development areas. Preliminary findings presented indicate that Manx shearwaters generally fly below 15 metres altitude, although flight heights increase during periods of stronger winds. The project has also identified that storm petrels nesting on Skokholm and Lundy have maximum foraging ranges that overlap with several offshore wind areas of interest in the Celtic Sea.

Natural England's POSEIDON project focuses on large-scale environmental data collection and species distribution mapping. The project has compiled approximately 500,000km² of bird survey effort data and 1,300,000km² of marine mammal survey effort data collected between 2000 and 2024. These datasets have been used to develop species spatial distribution maps and predicted density models identifying areas of higher occurrence for species including harbour porpoise. The datasets are expected to become publicly available during summer 2026 through The Crown Estate's Marine Data Exchange platform.

The University of Plymouth's ECOFlow Frontline project examines the relationship between floating offshore wind development and oceanographic processes within the Celtic Sea. The project focuses on ocean fronts, which are areas of high biological productivity that support plankton, fisheries, seabirds, and marine mammals. Research within the project investigates how offshore wind infrastructure may interact with these oceanographic and ecological processes over time. Survey methods associated with the project include remote sensing, autonomous underwater vehicles, digital aerial surveys, acoustic monitoring and plankton imaging systems.

The Subsea Soundscape Project (official website to be launched soon) involves the deployment of 21 acoustic monitoring stations across the Celtic Sea. The stations were deployed between 14–16 October 2025 and are

intended to monitor underwater sound within the marine environment to contribute to the marine mammal evidence base. The project is also being used to develop acoustic soundscape monitoring approaches and associated roadmaps in collaboration with regulators, particularly in relation to future consenting processes.

In addition to acoustic monitoring, the Subsea Soundscape Project includes eDNA sampling and water column physics measurements at all monitoring stations. These datasets are intended to support new environmental data outputs and provide opportunities to compare and cross-validate digital aerial survey, visual survey, satellite, and acoustic monitoring techniques. One example discussed within the project relates to grey seals, where existing data is largely based on haul-out locations but less information is available on movements between sites. The project aims to contribute additional information on marine mammal distribution and movement patterns within the Celtic Sea.

The White Cross floating offshore windfarm is a proposed project located approximately 52km off the North Devon coast. The project will consist of up to eight floating wind turbines installed in water depths of 70–80 metres and will have a generating capacity of up to 100MW, which is estimated to power 135,000 homes annually.

The project's offshore export cable route passes through or near several designated marine protected areas, including the Lundy Marine Protected Area (Special Area of Conservation – SAC - and Marine Conservation Zone - MCZ), Morte Platform MCZ, Braunton Burrows SAC, and the Bristol Channel Approaches SAC. Cable routing strategies were developed to minimise impacts and avoid environmentally sensitive areas where possible. According to the project's Environmental Impact Assessment (EIA), no significant environmental impacts were predicted. Planned mitigation measures during construction include reducing underwater noise. The project's offshore marine licence was granted on 15 July 2025.

Collectively, these projects illustrate the range of environmental monitoring, ecological research and technical assessment work currently taking place in relation to floating offshore wind development in the Celtic Sea.

The SWME webinar related to this article can be found here:

SWME 2026 Webinar: Offshore Wind in the Celtic Sea - hosted by Cornwall Wildlife Trust

Also see Strategic Compensation and Offshore Wind & MPAs page 92The Offshore Wind Environmental Improvement Package (OWEIP) was also announced in January 2025

3. Hinkley Point C and Fingleton Review (James Stewart, Devon and Severn IFCA)

Background and Context

In November 2025, Government published the independent 'Nuclear Regulatory Review 2025', led by John Fingleton.

The Fingleton Review was commissioned by the UK Government to inform a radical reform of nuclear regulation "to achieve faster delivery and value for money in nuclear infrastructure". It proposed sweeping reforms to nuclear and environmental regulation, citing alleged systemic failures and disproportionate environmental protections.

Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA) has taken the opportunity to respond to the Fingleton Review, which touches on areas of D&S IFCA's remit under section 153 of the Marine and Coastal Access Act 2009, and relies in part on a case study and examples with which D&S IFCA has had significant engagement (Hinkley Point C nuclear power station).

The following text outlines the main aspects of D&S IFCA's review, the full text of which can be viewed at D&S IFCA's website.

Key Issues

D&S IFCA found that the conclusions of the Fingleton Review rely heavily on flawed evidence of Hinkley Point C in Somerset (HPC).

The Review does not refer to the best available evidence, which shows that HPC's cooling system will entrap vast numbers of fish each year: the equivalent of over 4.6 million adult fish killed annually, including a yearly total of 450 tonnes of cod, whiting, and herring. Once HPC is operational, these losses cannot be mitigated adaptively.

These figures are not hypothetical; they are based on evidence used in a Planning Inspectorate Inquiry.

The Review also uses unrealistic estimates of fish protection benefits, and misattributes delays and extra process to regulators, rather than to the developer (in this case, EDF). EDF's own decisions caused a seven-year delay in developing the Acoustic Fish Deterrent (AFD), the keystone fish protection measure that has been required under the Development Consent Order since 2013 but has yet to be installed.

Policy relevance

Recommendations 11–13 of the Fingleton Review advocate major changes to Habitats Regulations and Environmental Impact Assessment regimes, including alternative compliance pathways and reduced scrutiny. D&S IFCA has outlined that these proposals, if based on flawed evidence, risk weakening important environmental protections and enabling future harm.

D&S IFCA concluded that failing to engage with best-available evidence is not acceptable, particularly when the stakes are so high. The ecological integrity of the marine protected area network, national fisheries, and public confidence in environmental governance and government decision-making depend on appropriate use of evidence. It recommended that, before implementing reforms, the UK Government should urgently revisit the evidence underpinning the Review's recommendations and question the processes that lead to inappropriate use of evidence in the Fingleton and Corry Reviews. Future decisions must be grounded in accurate, unbiased evidence.

D&S IFCA's full review of the Fingleton Review can be found here: https://www.devonandsevernifca.gov.uk/wp-content/uploads/2025/12/Devon-and-Severn-IFCA-Response-to-Fingleton-Nuclear-Regulatory-Review-2025-v1.0-1.pdf

4.Marine geoengineering - Planetary Technology's (PT) St Ives Bay geoengineering project

See page 55. The Seal Research Trusts legacy from Planetary Technology's (PT) St Ives Bay geoengineering project has continued in 2025. This was a Carbon Dioxide Removal (CDR) Ocean Alkalinity Enhancement (OAE) experiment that could have set a global precedent for this industry. Keep Our Sea Chemical Free (KOSCF) and SRT co-hosted multiple online screenings of the KOSCF documentary across Europe and in the USA answering questions and sharing our key learning take homes.

15. Marine Protected Areas (MPAs)

Editor: **Carli Cocciardi** Devon Wildlife Trust (ccocciardi@devonwildlifetrust.org)

Contributors: Kate Sugar (Natural England), Dani Clifford (The Wildlife Trust), Tom Barnfield and Verity Roberts (Marine Management Organisation), Dan Barrios O'Neill (Cornwall Wildlife Trust)

Key Summary Points and Conclusions

- The South-West MPA network includes 54 designated sites and accounts for approximately one-third of England's MPAs.
- Conservation advice for 98% of inshore MPAs has been completed by Natural England, while the number of MPA features with completed condition assessments increased from 68 to 83 (23% to 29%) between 2024 and 2025.
- According to the new Wildlife Trusts' MPA Recovery Assessment, 58% of UK MPAs are currently in degraded or degrading condition, while only 15% are classified as recovered or recovering.
- Progress was made through Stages 3 and 4 of the MMO's offshore MPAs fisheries management programme, with Stage 3 proposing measures to protect seabed features across 42 MPAs and Stage 4 developing options to manage pressures on highly mobile species such as harbour porpoise
- The MMO is also assessing the impacts of marine non-licensable activities, such as kayaking, paddleboarding, diving, anchoring, mooring and jet skiing, within English MPAs.
- The Government announced a review of the English MPA network and proposals for strategic compensation MPAs linked to offshore wind development.

South-West MPA Network Overview

The South-West MPA network currently includes 54 MPAs across Devon, Cornwall and the Isles of Scilly. These include:

Designation Type	**Number**
Special Areas of Conservation (SACs)	10
Marine Conservation Zones (MCZs)	37
Special Protection Areas (SPAs)	4
Ramsar Sites	2
Sites of Special Scientific Interest (SSSIs)	1
Total	54

Collectively, the network represents approximately one third of England's MPA system and covers a wide range of ecologically important habitats and species. The network also plays an important role within wider ecological connectivity across UK seas and supports multiple ecosystem services, including fisheries productivity, carbon storage, coastal protection and biodiversity resilience.

However, while the designation phase of the network is now largely complete, there is increasing recognition that many sites remain vulnerable to ongoing pressures and that achieving meaningful ecological recovery will require more effective management implementation and monitoring.

MPA conservation advice and condition assessments

During 2025, Natural England continued monitoring and evidence-gathering activities across several priority sites in the South-West, with a focus on South Cornwall bays and estuaries and sensitive habitats such as seagrass and maerl beds.

In 2025, Natural England also made progress in providing conservation advice for the South West inshore MPAs. Conservation advice packages have now been completed for 98% of sites across the network and the proportion of protected features with completed condition assessments increased from 23% in 2024 to 29% in 2025, rising from 68 to 83 assessed features. This work is increasingly important in the context of statutory targets established under the Environment Act 2021, which requires 70% of MPA features to be in favourable condition by 2042, with the remaining features in recovery. An interim target aims for 48% of features to be in favourable condition by 2028.

The UK's commitment to protect 30% of land and sea for nature by 2030 has helped maintain momentum for marine conservation. However, with approximately 40% of UK waters already covered by MPAs, the focus is increasingly shifting from designation towards ensuring sites are effectively monitored, managed and capable of delivering measurable ecological recovery.

The Wildlife Trust MPA Recovery Assessment

In 2025, The Wildlife Trusts published the MPA Recovery Assessment, an independent analysis designed to provide a UK-wide overview of MPA condition. This tool was published on the MPA Reality Check platform, developed in collaboration with the Marine Conservation Society and the BLUE Marine Foundation.

Drawing on publicly available condition and vulnerability data from the Statutory Nature Conservation Bodies (SNCBs), it presents an accessible overview of MPA condition and recovery across the UK. The assessment covers the UK's network of 377 MPAs and categorises sites into three groups:

- Recovered / Recovering
- Degraded / Degrading
- Data deficient / condition unknown

The most recent assessment, updated in August 2025, found that a substantial proportion of UK MPAs remain in poor condition. Approximately 58% of English MPAs were classified as degraded or degrading, 27% were categorised as condition unknown due to insufficient evidence, while only 15% of sites were assessed as recovered or recovering.

The assessment also highlighted continuing evidence gaps within the MPA network. An estimated 49% of protected features do not currently have a condition or vulnerability assessment, while 35% of existing assessments are more than six years old and 11% are more than ten years old. These findings raise concerns regarding the age of the evidence base used to inform management decisions and reinforce the need for continued investment in monitoring and assessment programmes.

To improve MPA outcomes, the Wildlife Trusts identified several priorities, including the implementation of fisheries management measures, adoption of whole-site management approaches, increased funding for monitoring and enforcement, greater community involvement in marine stewardship, and more effective marine spatial planning.

Marine management and compliance

Fisheries Management

The Marine Management Organisation (MMO) has a target to protect all English offshore MPAs from harmful fishing activity, with a phased approach to assessment and implementation. Stages 1 and 2 have already been completed, with Stage 1 addressing fishing activities in four offshore MPAs and Stage 2 addressing fishing activities in 13 MPAs.

During 2025, work focused primarily on Stages 3 and 4. Stage 3 addresses fishing impacts on seabed features across 42 offshore MPAs, with a consultation undertaken in summer 2025 proposing a range of management measures, including:

- Bottom towed gear bans in 36 MPAs;
- Trap restrictions in five MPAs;

- Bottom-set net and line restrictions in two MPAs;
- Removal of spiny lobster prohibitions in one MPA.

The proposals amount to approximately 30,000 km² of proposed bottom towed gear restrictions.

Within the South-West specifically, proposed measures include:

- Bottom towed gear bans in 14 MPAs;
- Trap restrictions in two MPAs;
- Bottom-set net and line restrictions in one MPA;
- Spiny lobster removal restrictions in one MPA.

The consultation received more than 20,000 responses. At present, implementation timelines are unconfirmed, although current expectations are that measures may be introduced during 2026 following review and ministerial approval.

Stage 4 focuses on MPAs designated for highly mobile species. Within the South-West, the principal focus is the Bristol Channel Approaches SAC, designated for harbour porpoise.

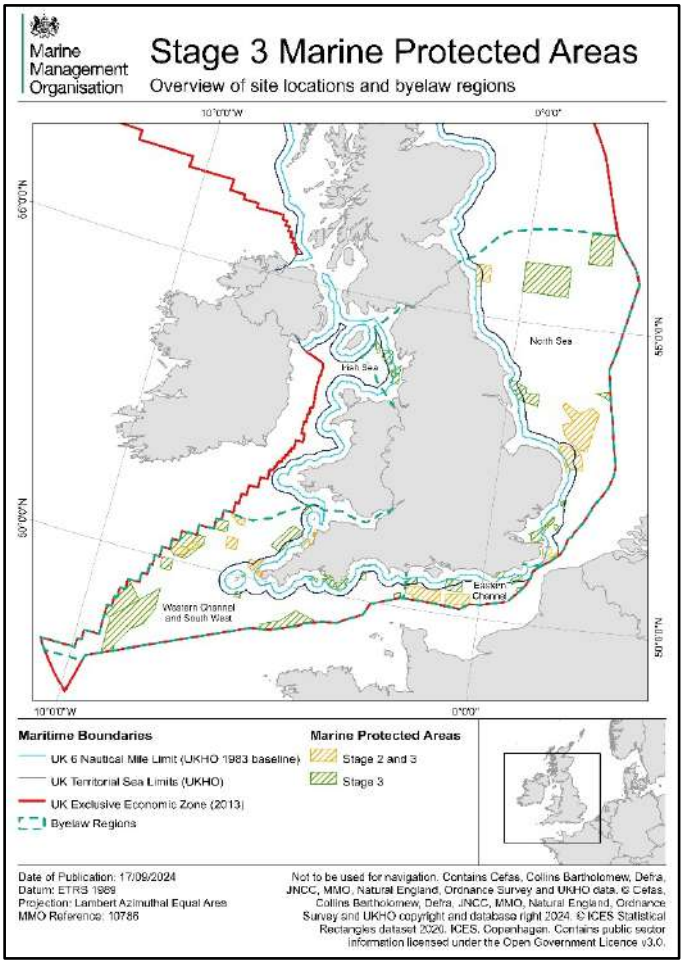

Figure 15.1. Location (shaded) of Stage 3 MPAs.

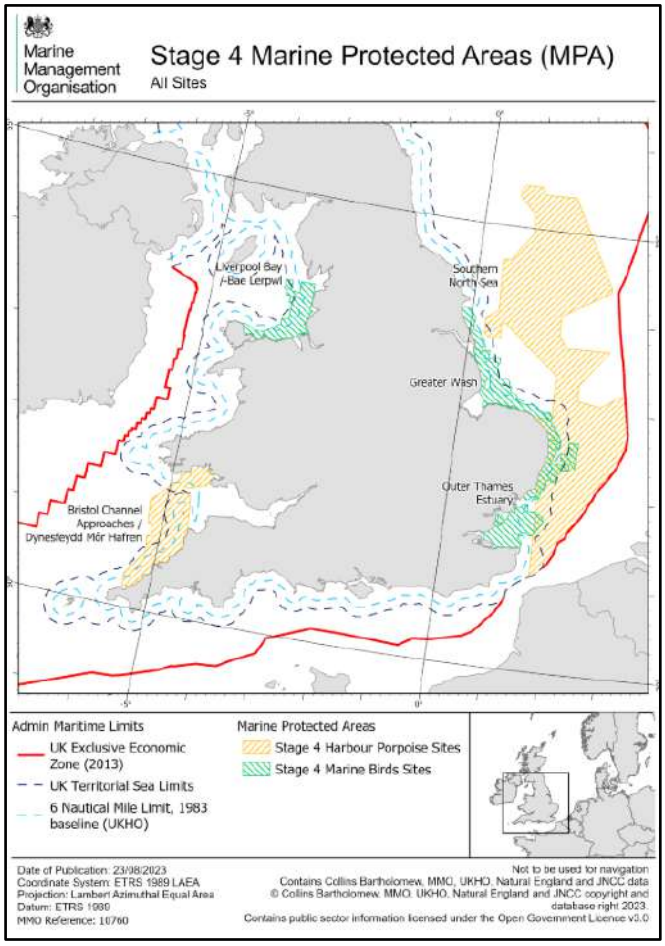

Figure 15.2 Location (shaded) of Stage 4 MPAs.

Management of highly mobile species presents additional challenges compared with seabed habitat protection because:

- Species range across very large areas;
- Activities such as bycatch are difficult to monitor;

- Management measures may require greater flexibility.

Current evidence indicates that bycatch associated with gillnet fisheries may represent a significant pressure on harbour porpoise populations within the site.

Six potential management approaches are currently under consideration:

- Time-area closures;
- Effort limitations;
- Dynamic time-area closures;
- Acoustic deterrent devices;
- Voluntary changes to fishing practices;
- Bycatch monitoring and reporting.

Further consultation on these proposals is expected in the future, although no confirmed timeline has yet been announced.

Marine Non-Licensable Activities

The MMO is also in the process of assessing the impacts of marine non-licensable activities (MNLAs) within English MPAs. These activities include recreational uses such as kayaking, paddleboarding, diving, anchoring, mooring and jet skiing.

The MMO identified 98 English MPAs requiring assessment of marine non-licensable activities. During 2025, preparatory work focused on developing impact evidence documents to assess the potential effects of recreational activities on protected features. Site-specific assessments will be undertaken over the next four years, combining evidence reviews with local stakeholder engagement to better understand how activities are undertaken and whether management measures may be required.

Several South-West MPAs are expected to be assessed during 2026, including sites around Plymouth and Tamar, Falmouth Bay, the Isles of Scilly and the Manacles MCZ. Management measures may include either voluntary or statutory approaches depending on site-specific pressures and conservation requirements.

Compliance and Enforcement

Compliance monitoring is an important component of MPA management, ensuring that fisheries management measures are effectively implemented and enforced. The MMO reported generally high levels of compliance with existing MPA fisheries bylaws during 2025.

Across England, 695 reported incidents required no further action following investigation, while four cases were referred to intelligence teams for further investigation. Thirty-three minor infringements resulted in advisory action, and four cases led to formal written warnings. Within the South-West, the majority of investigations similarly resulted in no further action, reflecting generally strong compliance with management measures.

A notable enforcement outcome during 2025 was a successful prosecution relating to illegal fishing activity within the Canyons MCZ. The vessel operator pleaded guilty to using prohibited fishing gear within the site and received a 12-month conditional discharge alongside legal costs and additional charges.

Overall, compliance levels remain high, providing confidence that existing fisheries management measures are largely being adhered to and contributing to the effectiveness of MPA management.

MPA Network Review

In 2025, the Government announced a formal review of the English MPA network. The review aims to ‘future-proof’ the network and assess its ability to support wider government objectives relating to:

- Biodiversity protection;

- Climate mitigation and adaptation;
- Food security;
- Ecosystem resilience.

The review reflects increasing recognition that the current network was largely designed around biodiversity conservation objectives and may not fully account for wider ecosystem services and climate-related functions. The review is expected to continue through to 2028.

Strategic Compensation and Offshore Wind

The Offshore Wind Environmental Improvement Package (OWEIP) was also announced in January 2025. Under this approach, the Government intends to designate or extend MPAs as strategic compensation for seabed impacts associated with offshore wind development. Potential approaches under consideration include:

- Extending existing MPA boundaries;
- Adding additional features to existing MPAs;
- Designating new protected areas.

At present, there appears to be greater preference for the extension and enhancement of existing sites rather than the creation of entirely new MPAs. Natural England and JNCC are currently developing ecological advice regarding candidate compensation sites.

16. Fisheries

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Introduction

We have been reporting on the fisheries in the south-west in the SWME reports for over a decade and a number of the major changes in fisheries were also discussed in the past ecosystem changes at the 2026 SWME conference which can be viewed here: https://www.youtube.com/watch?v=EFGZ8-O7CTU&t=3892s

This chapter reflects material included in the SWME Fisheries Webinar which can be viewed here https://www.youtube.com/watch?v=Rvx7ubCJeBw&t=13s

The PELTIC pelagic survey Highlights – **Jeroen van der Kooij** – Cefas jeroen.vanderkooij@cefas.gov.uk

Headlines of the 2025 Peltic survey include:

- Sardine (*Sardina pilchardus*), Sprat and Anchovy biomass annually recorded and submitted to ICES for advice
- Sardine and Anchovy (*Engraulis encrasicolus)* are expanding in range and show overall increase in biomass over last decade.
- In 2025, biomass increased from 2024 for the three main species: Sardine biomass was at more than half a million tonnes, the highest in time series (since 2013); Anchovy and Sprat biomass estimates were the second highest in the time series.
- Sprat size in Lyme Bay remains small as observed in the last few years, largely driven by an absence of fish older than 2 years.
- All three species show interannual biomass fluctuations with occasional ‘spike’ or drop
- Increased understanding of ecology and distribution, especially for Sardine and Anchovy stocks
- Anchovy northward range expansion due to different processes:
- Other species, such as Herring, Horse Mackerel (Scad) and Boarfish are also recorded and quantified but their distribution is only partially captured.
- Systematic sightings of Atlantic Bluefin Tuna recorded by observers capturing their return in 2014; also rarer pelagic species.

A Report of the 2025 Peltic Cruise can be found at https://swmecosystems.co.uk/annual-reports - in Fish Reports 2025

Western Channel Pelagic Fisheries Management Plan - Leonie Robinson MMO & Liverpool University leonie.robinson@liverpool.ac.uk

The proposed Celtic Sea and Western Channel Pelagic Fisheries Management Plan can be accessed at this link: https://defrafmp.blog.gov.uk/fmp-directory/

- The plan covers Herring, Anchovy, Horse Mackerel, Sardine, & Greater Silver Smelt
- Follows best practice and a Natural Capital and Ecosystem Based Approach
- Extensive consultation
- Adopts a Partnership approach
- Drawing on a diverse range of evidence

Fisheries Landings in the south-west - Jacob Bestwick jacob.bestwick@marinemanagement.org.uk

Inshore Quota Manager, Fisheries Management Team, Marine Management Organisation (MMO)

In the SWME Fisheries webinar Jacob reviewed the 2025 landings statistics for 15+ species and compared these with landings from previous years; see from 35mins at https://www.youtube.com/watch?v=Rvx7ubCJeBw&t=253s

The MMO official fisheries statistics are published at the link below. However, there is a delay on these with the 2025 statistics likely to be published around September/October. The annual sea fisheries statistics contain the full data set with some aggregations (link also below)

UK sea fisheries annual statistics - GOV.UK

https://assets.publishing.service.gov.uk/media/692db462b3b9afff34e9630a/SFS24_UK_into_all_ports_non_uk_into_uk_ports_landings_2020_24.ods

Furthermore, throughout each year the MMO also published official monthly statistics which are available at the link below. Monthly UK sea fisheries statistics - GOV.UK

Plymouth Fishery and Seafood Association - Edward Baker Edward@pfsa.uk

https://www.pfsa.uk/news/edward-baker-takes-up-ceo-post-with-pfsa

Edward described the range of activities being undertaken by the Association to promote seafood including:

- Pollack data and stock surveys with the Pollack FISP project (University of Plymouth, MBA, University of York & Angling Trust) and commercial vessels
- GPS tracking buoys marking for fixed gear to help avoid mobile – towed gear conflicts
- The youth outreach programme in relation to fish and fisheries
- The Seafest Festival in Plymouth to promote fish products
- The development of fish products – 'Soupafish'
- The closure of the Plymouth Fish Market has posed challenges
- Fuel prices for fishermen a real issue.

The Common Octopus Bloom – Bryce Stewart bryste@mba.ac.uk

2025 will go down as the 'Year of the Octopus' with a massive explosion in numbers of common Octopus (Octopus vulgaris) damaging shellfisheries for lobsters, crabs and scallops while in turn becoming a food source for seals, Risso's Dolphins, Blue Shark and Conger eels.

Dr Bryce Stewart in collaboration with PML and the University of Plymouth published two sequential work package reports detailing the massive common octopus (*Octopus vulgaris*) bloom off the coast of southwest England. [1, 2]

The two reports are:

- **Work Package 1 Report (January 2026):** *Common octopus (Octopus vulgaris) blooms off the Southwest of the UK: History, trends, causes and consequences*. This initial report investigated the environmental triggers—such as unusually high sea temperatures and specific ocean current changes—driving the massive 2025 surge, alongside its severe economic impacts on traditional crab and lobster fisheries. https://plymsea.ac.uk/id/eprint/10535/
- **Work Package 2 Report (June 2026):** *Common octopus (Octopus vulgaris) blooms off the Southwest of the UK: History, trends, causes and consequences. Report on Work Package 2: Fisheries independent estimates of octopus abundance and behaviour*. This follow-up report utilized citizen science data from recreational divers and snorkelers, as well as underwater camera monitoring, to map the wider geographic spread and extensive breeding activity of the expanding octopus population: https://plymsea.ac.uk/id/eprint/10609/

Atlantic Bluefin Tuna (*Thunnus thynnus*) - **Tom Horton** T.Horton@exeter.ac.uk, **Sophy Phillips** sophy.phillips@cefas.gov.uk Steve Murphy

The recovery of Atlantic Bluefin Tuna (ABT) is ongoing story which has led to considerable interest in the specialist and wider community both locally and nationally.

Quota In 2025, the United Kingdom was allocated a total of 66.15 tonnes of Atlantic Bluefin Tuna quota by the International Commission for the Conservation of Atlantic Tunas (ICCAT). This quota was distributed as follows: Commercial Fishery: 45 tonnes were designated for a trial commercial fishery. Recreational Permitting Schemes: 13 tonnes were allocated to support catch-and-release recreational fishing programs. Bycatch and Tagging Programs: The remaining quota was reserved for bycatch allowances (7.15 t) and scientific research and tagging initiatives (1 t). For more information see the DEFRA website. This quota did not extend to the devolved administrations of the Channel Islands.

Management The Marine Management Organisation (MMO) manage and permit recreational sea anglers to catch and release bluefin tuna. 2025 data have been released (~140 licences issued and >2600 captures reported): Bluefin Tuna Catch and Release Recreational Fishery (CRRF) 2025-GOV.UK.

Feeding the Comeback is a new scientific project, led by Tom Horton at the University of Exeter and supported by the Devon Environment Foundation, Cornwall Council, and the Fishmongers Company amongst others focused on studying the diet of returning Atlantic Bluefin Tuna to ensure their long-term recovery by understanding their prey and informing sustainable management, with strong community and fisher involvement. The initiative highlights the tuna's spectacular return to UK waters after decades and aims to balance fishing with conservation by educating the public and policymakers on ecosystem health. Approximately 100 Atlantic Bluefin Tuna stomachs were sampled by collaborating with the commercial fishery and the MMO in the 2025 season. Results are expected to be shared in the Spring of 2026.

These sightings come from differing observers covering, research, behaviour, feeding and timing.

- Peltic: ABTs co-feeding with Cory's and Great Shearwaters now commonplace – huge increases in these birds associated with the tuna.
- There were lots of sightings on ABTs very near the short from Cornwall to Dorset and the Channel Isles.
- Behaviour – daily vertical migrations Jess Rudd *et al.* (2025 - link). This study used high and low-resolution accelerometer tags deployed on Atlantic Bluefin Tuna in the English Channel to quantify both immediate and longer-term behavioural responses to capture and tagging. Longer deployments showed that normal behaviour includes strong diel vertical migration and daytime-biased activity in summer.

17. Marine Plastic Pollution

Rachel Yates Senior Communities Manager, Surfers Against Sewage rachel@sas.org.uk

Contributors: Lizzie Price, Marine Conservation Society Jake Arney, Waterhaul Monika Hertlova, Clean Ocean Sailing Emily Cantrill, Clean Cornwall Anne Marie Eveliegh, Earth Action North Devon Emma Jackson, Litter Free Dorset Sue Sayer, Seal Research Trust Plastic Free Falmouth

Conclusions

1. 2025 was a year where organisations reporting to SWME saw the prevalence of plastic pollution on the south-west coastline hold steady for another year. Evidence gathered by local coastal clean-ups shows at least 21,100 kg of pollution was removed by 15,300 volunteers, whose time was worth over £396,000 pounds. Again, the top plastic pollution items recovered were ghost gear and pollution stemming from single-use plastic.
2. Plastic pollution and its root cannot be seen in isolation. This is not a south-west specific issue but a global crisis linked to national and global systems. 2025 was the year that could have seen a legally binding Global Plastics Treaty but, yet again, negotiations in Geneva failed due to successful lobbying from the petrostates and brands. The saving grace was a determination that a watered-down treaty was not an option, leading to future negotiations.
3. 2025 was also a year that saw the issue of micro- and nano-plastics hit headlines and the public health impacts of plastic pollution start to cut through. We eat a credit card's worth of plastic a week, with growing evidence of links to infertility, respiratory disease and cancer through the whole lifecycle of plastic production. From extraction to production, distribution, use and disposal.
4. Plastic production is set to double by 2040. While the task of tackling its pollution of the coastline and seas of the south-west may seem daunting, there are opportunities on every level to influence and drive change. Individually, through workplaces and businesses, as communities and through local and national decision makers. Change comes from the bottom as well as the top, and evidence-led approaches based in academic research, robust data collection and impact case studies, all support the systemic change so urgently needed.

Introduction

The aim of the SWME Marine Plastic Pollution Community of Practice (CoP) is to focus on measures that help minimise and reduce plastic pollution and its impact in the south-west.

We are made up of a number of organisations that cover the whole south-west and who work on various facets of the plastic pollution crisis. Be it consumer single use plastic, ghost gear, waste management or community solutions.

The five areas we look at are:

- Quantity – the amount of plastic pollution on the south-west coastline.
- Itemisation – what items of plastic pollution are being found on the coastline.
- Impact – what is the impact of that pollution on ecosystems and communities.
- Action – what action can be taken or is needed to tackle the issue effectively.
- Research – new research from or involving the south-west that can help us better understand the issue and drive evidence led change.

2025 was our first full year as a Community of Practice. We are still setting ourselves up and looking at how we want to work together. New members are still needed to support data collection and reporting as well as calls to action.

Quantity Snapshot of 2025

The statistics for 2025 provide a snapshot of, rather than a comprehensive report on, the state of the ocean round the south-west in terms of plastic pollution. There is still an opportunity to expand the group and review how we collate and present evidence in future. Especially to avoid duplication of data.

With that in mind our overview for the whole of the south-west uses statistics from two of the largest organisations in the Community of Practice, who run national clean-up programmes and can provide more comprehensive breakdowns of data for Cornwall, Devon, Dorset and Somerset. Many of the volunteer groups and smaller organisations who collect marine plastic pollution from the coast align with these organisations and will report data to them meaning this is the most credible and unduplicated source of data for the report.

NOTE: not all cleans registered with these organisations submit data, so there will be discrepancies between the number of cleans, volunteers and hours involved and the number of kilos and items reported.

We have also included reporting from Waterhaul and Clean Ocean Sailing, who collect plastic pollution in the form of ghost gear or from hard-to-reach locations, to reflect the different types of marine pollution that is being recorded.

Table 17.1. Quantity across the south-west.

Overall SW	***cleans/surveys***	***KG***	***vols***	***Time in vol hrs***	***items***	***% plastic***
Surfers Against Sewage	948	9,376	12,446	26,835	9,102	74%
Marine Conservation Society	199	1,186	2,883	4,913	60,174	85%
Waterhaul	51	2,677	50	120	Not recorded	95%
Clean Ocean Sailing	47	7,902	n/a	n/a	18,068	n/a
TOTAL SW	**1,245**	**21,141**	**15,379**	**31,148**	**87,344**	**84%**

The second set of statistics on quantity give an example of what smaller groups are taking off the south west coastline in county areas. Many of the volunteer groups undertaking this work and submitting evidence to the example organisations below, will also have registered and submitted to one of the national organisations above. At the moment, there is no way of knowing which statistics are duplicated, so they have been presented separately.

Itemisation

Not all organisations itemise what they collect. For 2025 we are able to give examples of itemisation statistics from Marine Conservation Society, Surfers Against Sewage and Waterhaul.

All organisations monitor different aspects of the plastic pollution crisis and are reliant on what volunteers choose to report. Not every clean volunteer will report on what was found. One area that the Community of Practice wants to explore is how to collate statistics more effectively and provide a more accurate picture of plastic pollution in the region. The information that we are able to collect at the moment provides a good indication of the scope of items being found though.

Table 17.2. Examples of quantity across specific areas.

Cornwall	***cleans/surveys***	***KG***	***vols***	***Vol time hrs (average)***	***items***	***% plastic***
Clean Cornwall	211	4540	972	1458	unavailable	unavailable
Devon						
Earth Action North Devon	45	2485	1504	2273	unavailable	unavailable
Dorset						
Dorset Council	15	327	297	446	unavailable	unavailable

In terms of our 2025 itemisation examples, the Marine Conservation Society equips volunteers to undertake a Beachwatch Survey each time they clean a stretch of coastline. You can see the full report here >> Beachwatch 2025 Results | Marine Conservation Society.

2025 results for the south-west showed the top five offenders were: 1. Plastic Pieces/Polystyrene; 2. Plastic caps/lids; 3. Food Packets, 4. Fishing net pieces (0-50cm); 5. Cigarette Stubs

Surfers Against Sewage equip volunteers to collect evidence of items found and also the brands polluting the coastline, to support campaigns to end plastic pollution at source. Plastic pollution made up 85% of items found across the UK, single use packaging accounted for 50% of it.

The UK wide Brand Audit uncovered that the top polluting brands – the Dirty Dozen - were responsible for 52% of the plastic pollution being taken off the coastline. In 2025 they were: 1. Coca Cola; 2. McDonalds; 3. Cadburys; 4. Red Bull; 5. Walkers; 6. Monster; 7. Lucozade; 8. Pepsi; 9. Stella Artois; 10. Haribo; 11. Tesco; 12. Mars.

The report shows that 80% of single use packaging reported could have been avoided had the key policy of Packaging Extended Producer Responsibility (pEPR) been implemented. 50% could have been prevented by Deposit Return Schemes (DRS)

You can break results down and see the other items recovered in the full report here >> SAS-BrandAudit2025.pdf

Waterhaul itemisation looks at composition of what is recovered by weight. In 2025, 50% was ghost fishing gear, of which 50% was High Density Polyethylene and 30% Polypropelene. 15% was other plastics including household and Fast-Moving Consumer Goods (FMCG) packaging. 5% was metals.

Microplastics is still an area where south-west specific evidence is emerging. MCS and SAS categorise items to include plastic fragments, which formed 59% and 16% of items reported respectively.

Research based in the south-west has been undertaken on the extent of microplastic pollution and its impact. You can see published articles in 2025 in the 'Research' section at the end of this chapter. One of the largest studies undertaken in 2025 cannot be published until it's been peer reviewed, so, something we hope to share in future reports. We can however demonstrate the severity of the issue through case studies.

Impact

Case studies from around the south-west not only demonstrate the direct impact of this tide of pollution, but also the scale and diversity of its impact. Plastic is all pervasive. It's in the air, the soil, the sand. In waterways and the sea. It is ingested and found in the bodies of marine mammals, sea birds and humans. It entangles, permeates and

poisons. We have picked two case studies to demonstrate impact, but the impacts are felt and cause damage daily across our communities, on land and at sea.

Case Study One: Entanglement

In 2025 Seal Research Trust (SRT) volunteers recorded 804 sightings of entangled seals, on 421 surveys. 3.1% of all seals sighted were entangled. In total 94 different entangled seals were identified.

Adult female 'Legs' was spotted in January 2019 with a lost/discarded single strand of monofilament net loose around her neck. Within three weeks the plastic net had 'cheese-wired' through her very tough cross collagen skin through movement alone. By December in 2019 the net was deeply embedded in her flesh

Figure 17.1. Entanglement injury of the Grey Seal 'Legs'. (Image credit: Seal Research Trust).

By February 2020 Legs' wound was visibly worse and bleeding and would be a hideous welfare issue. Within six months she had developed a small globe shaped pink flesh lesion on the top left of her neck. Around 22 months after entanglement the short strands had been degraded by sunlight and broken off, but SRT assume that the encircling net was still embedded within her neck flesh. In September 2022, Legs was obviously fit enough to have a pup that she successfully weaned. Sadly in 2025, her wound opened up, possibly as a result of a burst abscess or her accidentally scratching it. The resulting flesh wound was shocking. Incredibly, Legs was still alive two months later with considerable healing. Only time will tell the outcome.

Case Study 2: Microplastic Pollution

Fal Bio Bead Working Group

Figure 17.2. Quantitative surveys of microplastics. Image: University of Exeter & Plastic Free Falmouth.

Figure 17.3. Microplastics along a strandline. Image: University of Exeter & Plastic Free Falmouth.

The Fal Bio-bead Working group was established to look-into unusually high levels of microplastic being found in the Fal Estuary, Cornwall. This included bio-beads, with the source suspected to be the 2010 bio-bead spill at Newham in the upper reaches of the estuary.

Throughout 2025 undergraduate students from the University of Exeter, together with Beach Guardian and Plastic Free Falmouth, continued a collaborative study to sample and map the distribution of microplastics in the Fal Estuary.

Preliminary results showed particular hotspots of bio-beads in the upper reaches of the estuary. Further research and sampling are needed to produce a peer-reviewed study, but the working group are hopeful this may be possible in the next academic year.

Action

The 2025 snapshot gives a tiny reflection of one of the biggest threats to ocean and human health. Plastic pollution is a global issue and localised evidence is critical to feed into the national and global picture, including campaigns for the policy, legislative and behaviour change needed to tackle it. We can tell the story of plastic pollution in the south-west, but without action the story serves no purpose.

In 2025 there were key moments that could have led to systemic change on a global and national level, that would have in time filtered to the localised impact of plastic pollution. All were missed.

The Global Plastics Treaty failed to reach agreement. Its redeeming moment, ironically, being a decision by 'high ambition' nations that no treaty was better than a weak treaty. Demonstrating the public mandate alongside evidence to demonstrate the need for a strong treaty is critical. As a Community of Practice we have an important role in feeding evidence from the south-west of England into national campaigning and public mobilisation efforts. Talks are currently set to resume in 2027, with a coalition of UK NGO's already preparing.

The UK fell within a cohort of 'High Ambition Coalition' at the Global Plastic Treaty negotiations, so in the meantime the focus falls to ensuring rhetoric on the global stage is followed through nationally in the UK. And yet, the long-awaited Circular Economy Strategy promised by the government in 2025 is further delayed. And while we saw at long last the implementation of Packaging Extended Producer Responsibility (pEPR) in 2025, we still wait for a Deposit Return Scheme (DRS).

And so, the work continues through organisations in the south-west, and the community groups that link to them, to put pressure on the UK government to follow up on its promises. Where we *can* lead the way, is by looking at how, on a community level, we can support the systemic changes we want to see on a national and global level. Through refill and reuse systems, localised policy on single use plastic, plastic free business models, education and awareness and simple changes to our consumer and behavioural choices.

Research

The south-west was again central to some key pieces of research published in 2025, many of which were around microplastic pollution:

Microplastics and other plastic-like microdebris in sediments from the Dart River and Estuary, southwest England - ScienceDirect

Potentially toxic metals, anthropogenic microfibres and other microplastics in sediments from a small, urban estuary (Plym, southwest England) - ScienceDirect

Relationships between sediment size distribution and microplastic abundance and characteristics along the strandline of a sandy embayment (Whitsand, Southwest England) - ScienceDirect

Spatial and Temporal Distribution of Large (1–5 mm) Microplastics on the Strandline of a Macrotidal Sandy Beach (Polzeath, Southwest England) and Their Association with Beach-Cast Seaweed

Sewers to Seas: exploring pathogens and antimicrobial resistance on microplastics from hospital wastewater to marine environments - ScienceDirect

"Microplastic accumulation in a mixed species seagrass bed in the Tamar" by Hannah G. Phillips

The theoretical role of the wind in aerosolising microplastics and nanoplastics from coastal combined sewer overflows

Wider plastic pollution research was also published by Plymouth University in partnership with ZSL, Nantes University and Surfers Against Sewage. This research for the first time was able to map geographical differences in the prevalence of plastic pollution and link it to population density. The research highlighted the need for region specific waste strategies and responses:

Citizen science reveals litter trends in the UK: Population density effects on coastal and inland regions - ScienceDirect

Other research focusing on the south-west or from regionally based researchers included those focusing on the current global policy opportunity and impacts:

Human health evidence in the global treaty to end plastic pollution: a survey of policy perspectives

Legally binding reduction targets for primary plastics production: A necessity to end plastic pollution

Join the Community of Practice

We are still a new Community of Practice on Marine Plastic Pollution and we need your help. Over the next year we are looking to recruit more members to help shape:

1. Data collection to support year on year monitoring, research, story-telling and campaign actions
2. An increase in reach, evidence, knowledge and therefore impact.
3. A stronger focus on thematic interactions to demonstrate better the impact of plastic pollution
4. Collaborative actions in support of local and national systemic change

There are five ways you can help.

- If you are part of an organisation or have expertise in this area – join the community!
- Recommend new members to us
- Share your impact stories and research on plastic pollution with us
- Join in with local and national action to end plastic pollution
- Become collaborative changemakers in your community