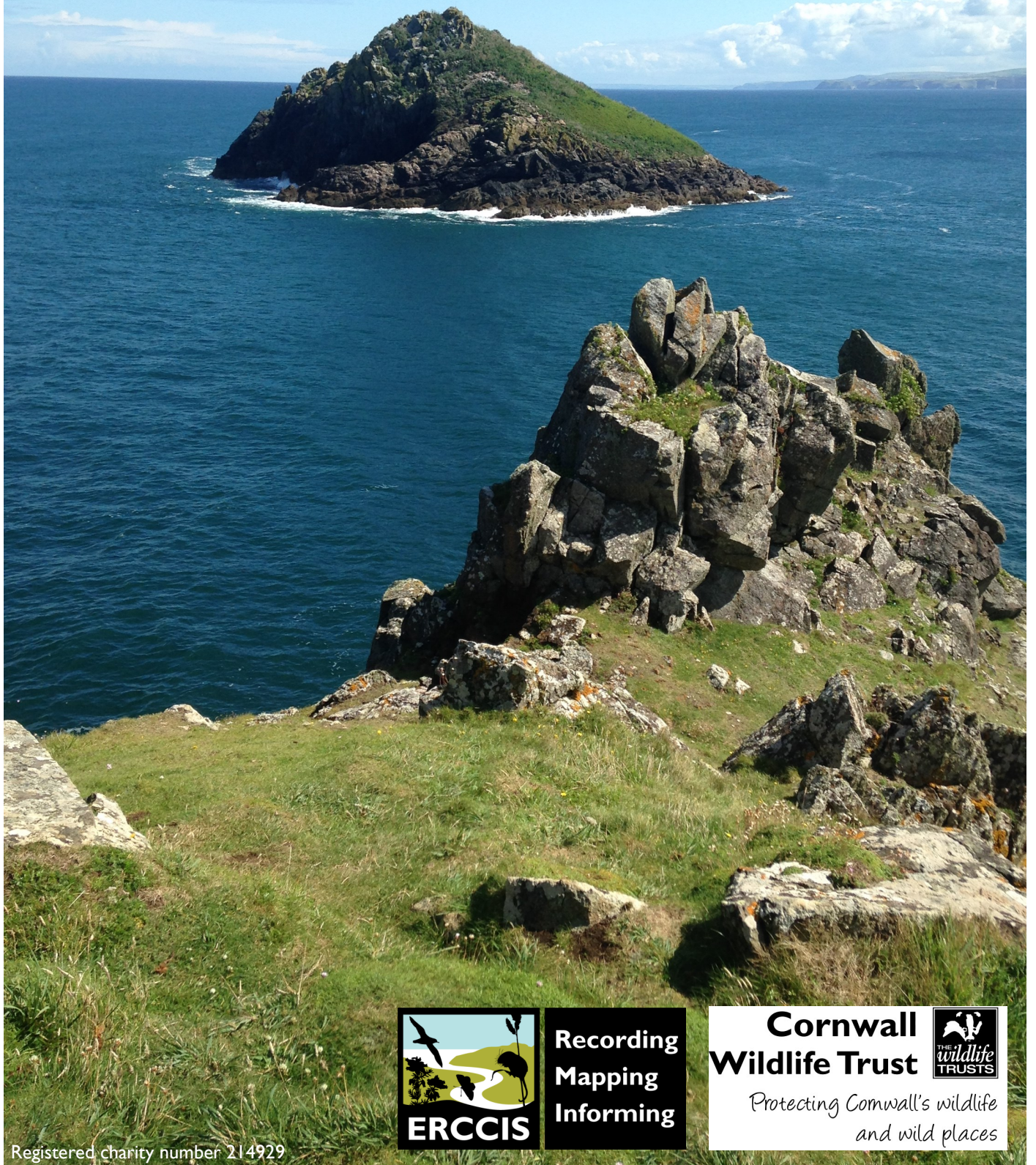


Seaquest Southwest

SUMMARY REPORT 2016



Recording
Mapping
Informing

**Cornwall
Wildlife Trust**



*Protecting Cornwall's wildlife
and wild places*

Cornwall has over 400 miles of diverse coastline; ranging from the rugged and wild north coast to the calm and beautiful south coast. The surrounding waters are home to some incredible marine wildlife, from the harbour porpoise, Europe's smallest cetacean, right up to the fin whale, the world's second largest marine mammal.



Volunteers surveying at Rame Head, 17th April 2016. Photo by Felicity Malla

Cornwall Wildlife Trust (CWT) works tirelessly to protect Cornwall's marine wildlife and wild places for future generations to enjoy. The Living Seas marine conservation team at CWT coordinate a series of different projects within the county, all of which work towards achieving our three major aims; to collect data on marine ecosystems, to create awareness of the threats facing marine life and to campaign for a better protection of our marine habitats.

Seaquest Southwest is one of these fantastic marine projects.

Data is regularly sent into Seaquest all year round, and is often submitted retrospectively from year to year. This may cause some figures to change from previous reports.

Seaquest Southwest is a citizen science marine recording project. For over 20 years we have been recording the distribution and abundance of our most charismatic marine wildlife; including dolphins, sharks, whales, porpoise, seals, sunfish and much more.

Through educational activities and public events such as the Seaquest Roadshow, evening talks and boat trips, we aim to increase people's awareness of these species and the threats they are under.

The project incorporates sighting records sent in by the public with structured surveys conducted by trained volunteers, to better understand and monitor these species around the South West.

Only with evidence-based records of occurrence, behaviour and ecology can we act to better protect and conserve these wonderful animals around our coasts.



Aims of Seaquest Southwest:

- To engage people with the marine environment.
- To collect data on marine wildlife.
- To better understand and conserve marine wildlife.

All data collected via the Seaquest project is shared locally with the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS), and nationally with partners such as the Sea Watch Foundation, and governing bodies such as Natural England (NE) and the Joint Nature Conservation Committee (JNCC).

* Note: this is the number of individual records sent to Seaquest not the number of animals recorded. The number of animals observed is always an estimation therefore we have concentrated on the record itself as a more accurate representation of the success of the Seaquest project.

Seaquest Southwest 2016:

Key Facts and Figures

2640	1900	162	370 ½
Wildlife sighting records reported to Seaquest in 2016 *	People engaged with the project including trips, surveys, Online Recording Kernow and Scilly (ORKS) and talks	Seaquest Southwest marine surveys carried out in 37 different locations	Hours of surveying
466	57	12	380
People contributed to sightings and/or survey data	New volunteers were recruited and trained	Seaquest Southwest public sea watches took place	People attended the Seaquest Roadshow in just 5 days
5	6	65	180
Seaquest boat trips, running from Penzance and Padstow	Evening talks and training sessions over the winter.	Dedicated volunteers attended the Seaquest annual Marine Recorders Conference	Attended the Southwest Bottlenose Dolphin Forum in October 2016

Seaquest Ad-Hoc Sightings

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

Bottlenose dolphins off North Cornwall. Photo by Chris Oates

Ad-hoc sightings of marine wildlife are collated by Seaquest Southwest via the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) website, or via ORKS (Online wildlife Recording for Cornwall and Scilly) www.ORKS.org.uk.

Alternatively, the information can be emailed to seaquest@cornwallwildlifetrust.org.uk, reported via social media (Seaquest Facebook) or called in by phone to the Marine Conservation Officer on 01872 302230. If possible, photographs should always be included with sightings as they will validate species identification.

Our ad-hoc sightings come from all over Cornwall during all sorts of activities. Paul Bullen took this photo (right) of a 'mysterious' marine mammal on his phone whilst kayaking. He emailed us to find out what it was and was happy to know that he had spotted a Risso's dolphin (low resolution picture hence size).



Ad-Hoc Marine Mammal Sightings

All year round Seaquest encourages the public to submit their valuable sightings. In 2016, compared with the last five years, there was a record number of common dolphin encounters plus our second highest number of harbour porpoise sighting reports. Along with the common visitors to our shores, we are always surprised by rare sightings. 2016 provided one of our first inshore encounters with white beaked dolphins and the second sighting in 10 years of a white harbour porpoise. We also had our second confirmed sighting of a bowhead whale, commonly found in the Arctic. Humpback whales were videoed on the North and South coasts of Cornwall along with three sightings of killer whales. The receipt of these sighting records shows that there is an increasing awareness of the need to record marine mammals through the Seaquest project, ORKS and the use of citizen science.

Table 1: Top six most commonly reported ad-hoc marine mammal sighting records to Seaquest over the past six years. Note, this is number of reports to Seaquest, not the estimated number of animals sighted.

Species	2011	2012	2013	2014	2015	2016	2011-2016
Harbour Porpoise	360	327	427	512	580	536	2742
Common Dolphin	176	98	130	149	194	450	1197
Bottlenose Dolphin	34	19	22	57	78	97	307
Risso's Dolphin	33	19	10	39	113	35	249
Minke Whale	50	19	23	49	28	22	191
Grey Seal	222	88	165	252	785	783	2295

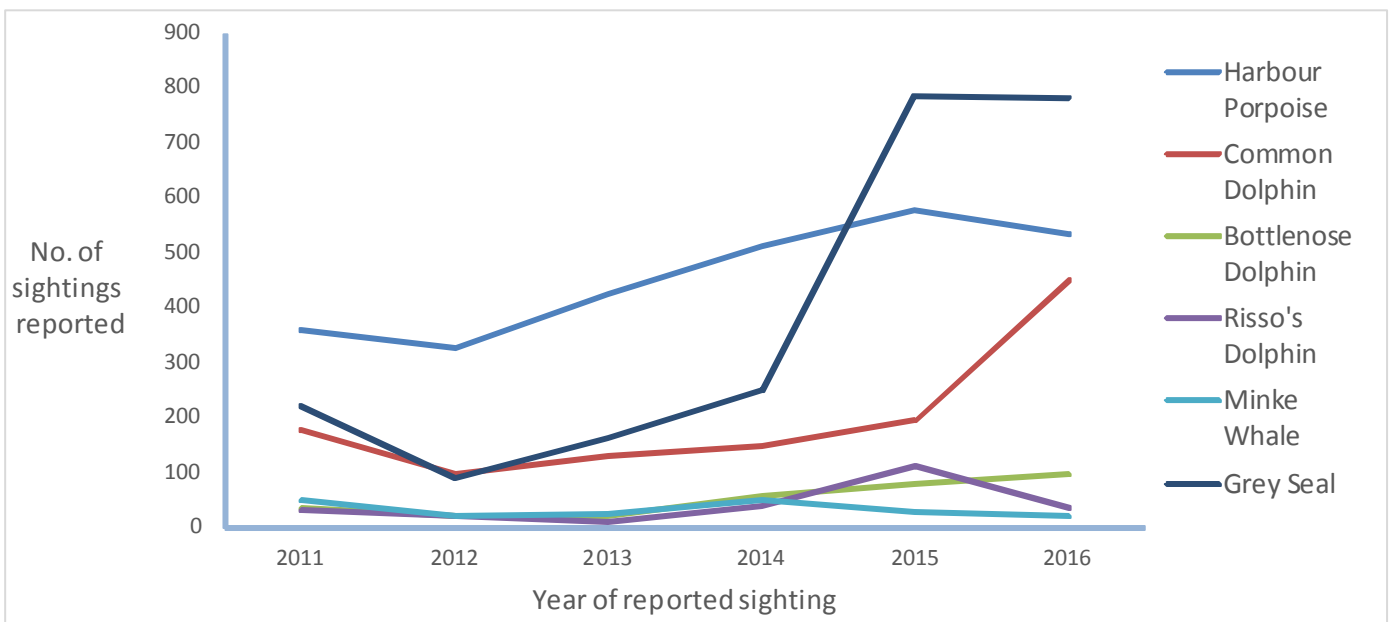


Figure 1: Number of Ad-Hoc sighting records per year over the last six years of our six most common marine mammal species.

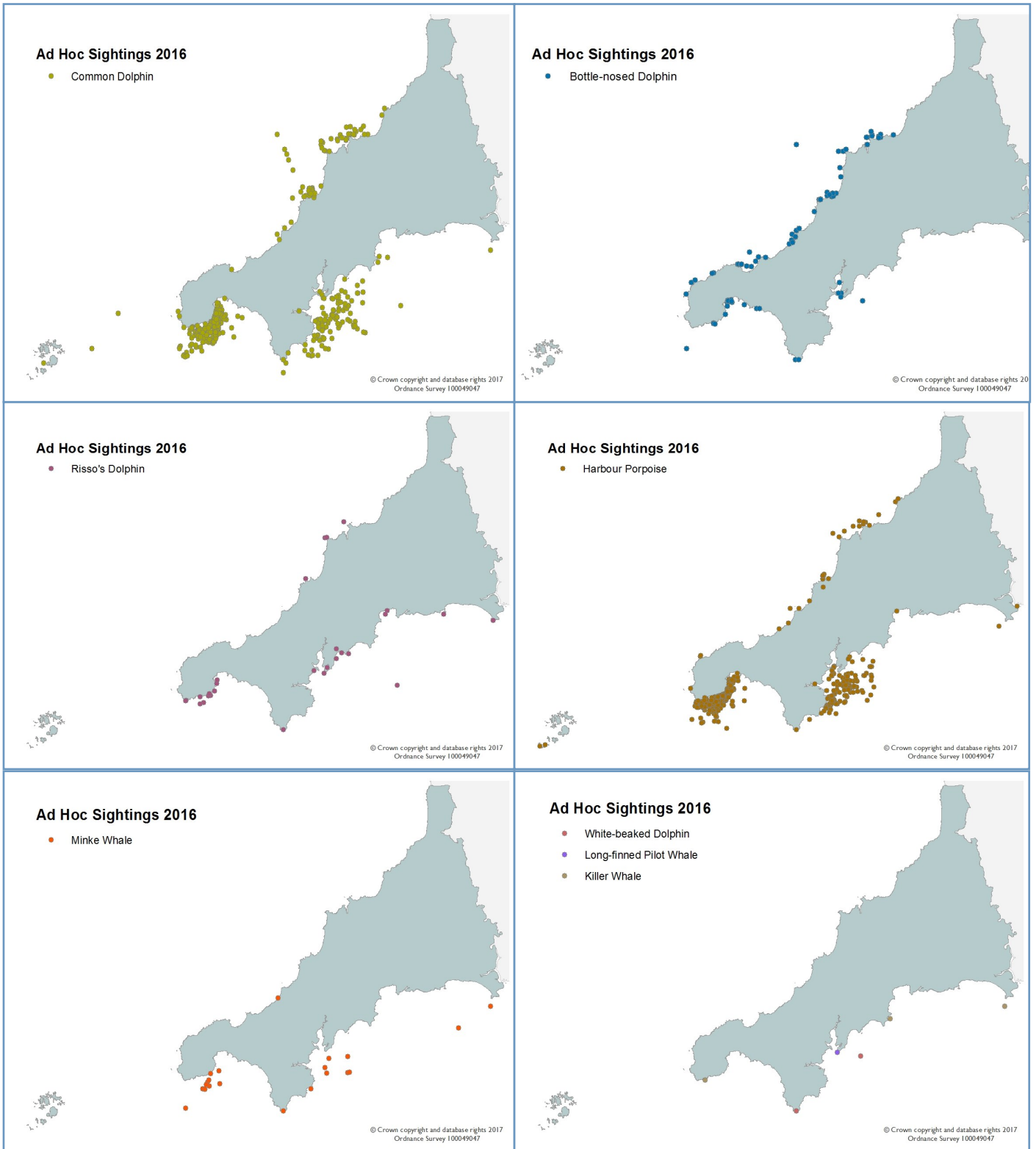


Figure 2: Distribution maps representing the sighting records of the five most common marine mammals in 2016 (minus Atlantic grey seals) and our rarer sightings (white-beaked dolphin, long-finned pilot whale and killer whale). Due to concerns over coastal disturbance we have not mapped our Atlantic grey seal sightings, however for seal sightings and information please refer to page 8.



Ad-Hoc Boney and Cartilaginous Fish Sightings

Cornwall hosts some of the most iconic marine animals of the British Isles, such as the basking shark, and these often feature heavily in our reported sightings. We experienced a flurry of basking shark sighting records in May 2016 which we hoped was the start of a busy year, however the total number of sightings declined for the fourth year running after 2012. Ocean sunfish sighting records were down slightly from 2015 figures and far lower than the peaks which we saw in 2012 and 2013.

Table 2: Numbers of ocean sunfish and basking shark sighting records to Seaquest over the past six years.

Species	2011	2012	2013	2014	2015	2016	2011-2016
Ocean sunfish	160	264	289	84	163	154	1114
Basking shark	76	419	237	72	34	28	866

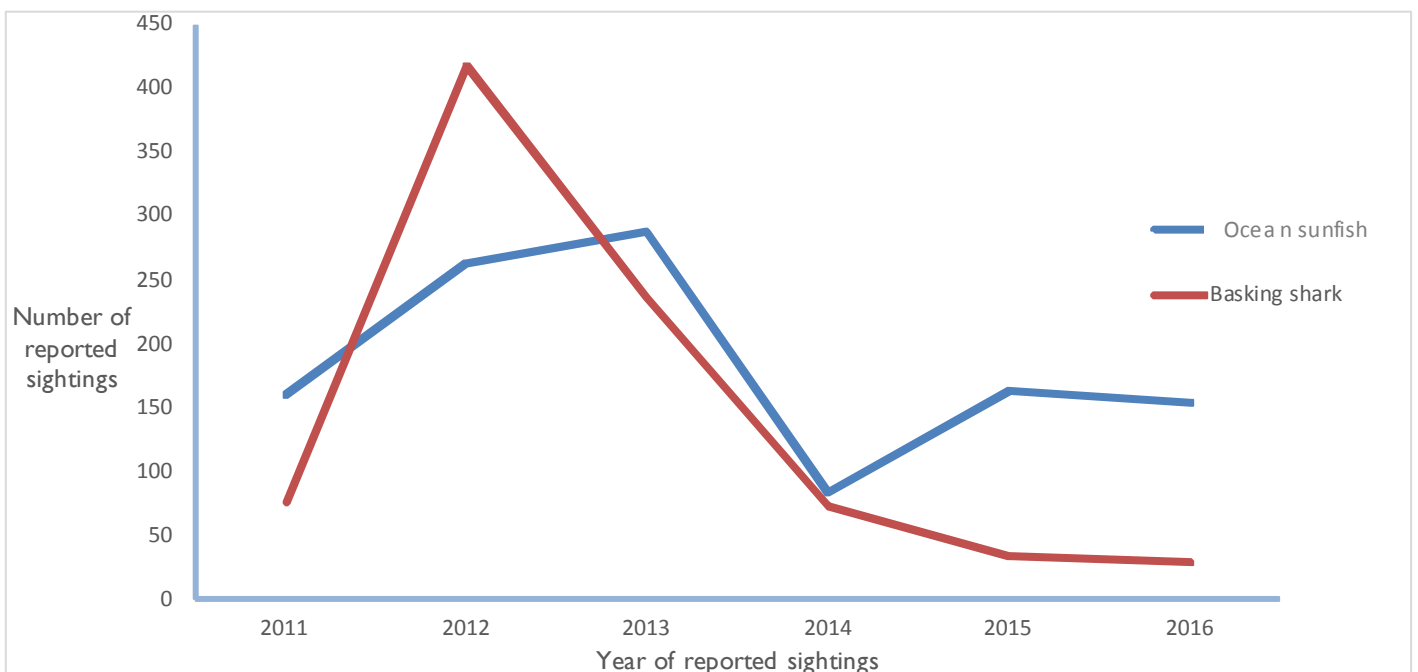


Figure 3. The number of reported Ad-Hoc sighting records of boney and cartilaginous fish over the past six years.



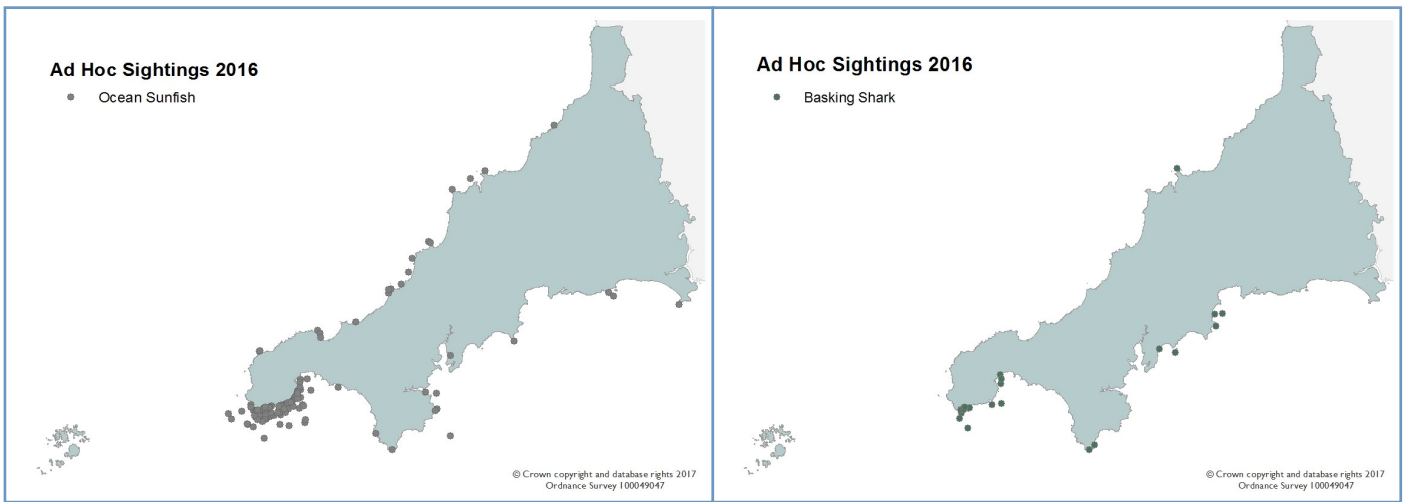


Figure 4. Distribution maps of all the reported sightings of Boney and Cartilaginous fish in 2016

Cornwall Seal Group Research Trust (CSGRT)

The UK is home to 44% of the entire world's population of grey seals and despite this the UK still has fewer grey seals than red squirrels! As a global hotspot, the UK has a special legal responsibility to protect grey seals under the BERN Convention. CSGRT is one of very few charities, alongside the Trust's Seaquest Project, working hard to put grey seals on the agenda of planning and policy making institutions, encouraging all to 'respect and protect'.

We are lucky in Cornwall to routinely see grey seals making it a good research site. CSGRT is an evidence based conservation charity who works in partnership with Seaquest, with our passions enabling us to inspire and support a large and expanding network of incredible volunteer citizen scientists. Outcomes from our research are used to engage, enthuse and inform statutory agencies, non-governmental organisations, related charities as well as the wider public in the conservation of the precious marine environment upon which grey seals depend. In 2016, a total of 14 major reports and a text book chapter on seal welfare were compiled by CSGRT.

In **2016** alone, CSGRT received **2941** seal records from **190** different recorders and four systematic organised survey teams across **195** different sites across Devon, Cornwall and the Isles of Scilly making us the main record holder for seals in Cornwall. This includes detailed data from at least 15 sites systematically surveyed by our amazing team of long term active citizen scientists, many of whom who survey for Seaquest Southwest. Our tenth Cornwall seal census counted 240 seals in April with 81% of seals hauled out at just ten sites and most seals (62%) being seen at just three sites of the 51 sites surveyed. 77% of seals observed were adults and 72% of these were males with 23 individual seals being photo identified (including one common seal).

Seal related highlights included the first photo ID seal links from Cornwall to Dorset with additional links found between the north Cornish coast and south Devon. Adult female 'Ghost' had her 14th pup in 14 consecutive years at the same site, which may be a world record! Video footage was recorded of the novel behaviour of one grey seal herding sand eels into a gully and another learning to haul out on a fishing tender. Not only were grey seals recorded in 2016, but three common seal pups and a ringed seal were rescued by British Divers Marine Life Rescue for rehabilitation at the Cornish Seal Sanctuary and RSPCA West Hatch. Common seals were recorded at ten different locations (the most in any one year on record). Two common seals were repeatedly recorded on the south Cornish coast.



Atlantic grey seal pup. photo by Sue Sayer
www.cornwallsealgroup.co.uk



Seaquest Surveying

Rather than relying solely on 'ad-hoc' or casual sighting records, a better understanding of marine and coastal wildlife is achieved through 'effort-based' surveys from land. These surveys are carried out by trained volunteers, and have been a key focus of Seaquest Southwest in recent years.



Trained Seaquest volunteers surveying at Pendennis Point, Falmouth in 2016. Photo by Matthew Thurlow



To support the collection of ad-hoc data, the Seaquest project encourages volunteers to head to their local sea watch site and record marine wildlife seen over a dedicated (known) period of time. Volunteers are given one day formal training by Cornwall Wildlife Trust which covers; Seaquest survey methodologies, coastal marine wildlife ID and ecology, and health and safety protocols. It also includes an afternoon practical after a morning in the classroom.

Effort based surveys can be conducted on any day at any time by trained volunteers, but one Sunday a month is set as a 'Seaquest Sunday' where as many volunteers as possible head to the coast at the same time in order to get a snap-shot of the marine wildlife from all around Cornwall. In addition, our public sea watch events also collate effort survey data, as a key volunteer will lead on completing a survey form whilst others engage with the public. It is always highlighted to our volunteers that zero sighting records are as valuable as positive sighting records when investigating population status of any species. Seaquest effort based data is stored at ERCCIS and used to monitor populations, understand behaviour, and highlight activity hotspots to make a real contribution towards effective protection and conservation for these species.

Thank you to these trained and active Seaquest Volunteers for all the surveying they did in 2016:

- | | |
|------------------------|-------------------------|
| Naomi Hamilton | Stan Christophers |
| Pauline McKeogh | Liz Hart |
| Ian Boreham | Tom, Louise and |
| Paul Blatchford | Alan Cole |
| Chris Weston | Vic Hall |
| Dave and Kate Williams | Brian Farrar |
| Matt Tagholm | Felicity Malla |
| Katie Bellman | Katie Drake |
| Richard Weeks | Niki Clear |
| Terry Carne | Mac and Marion McKenzie |

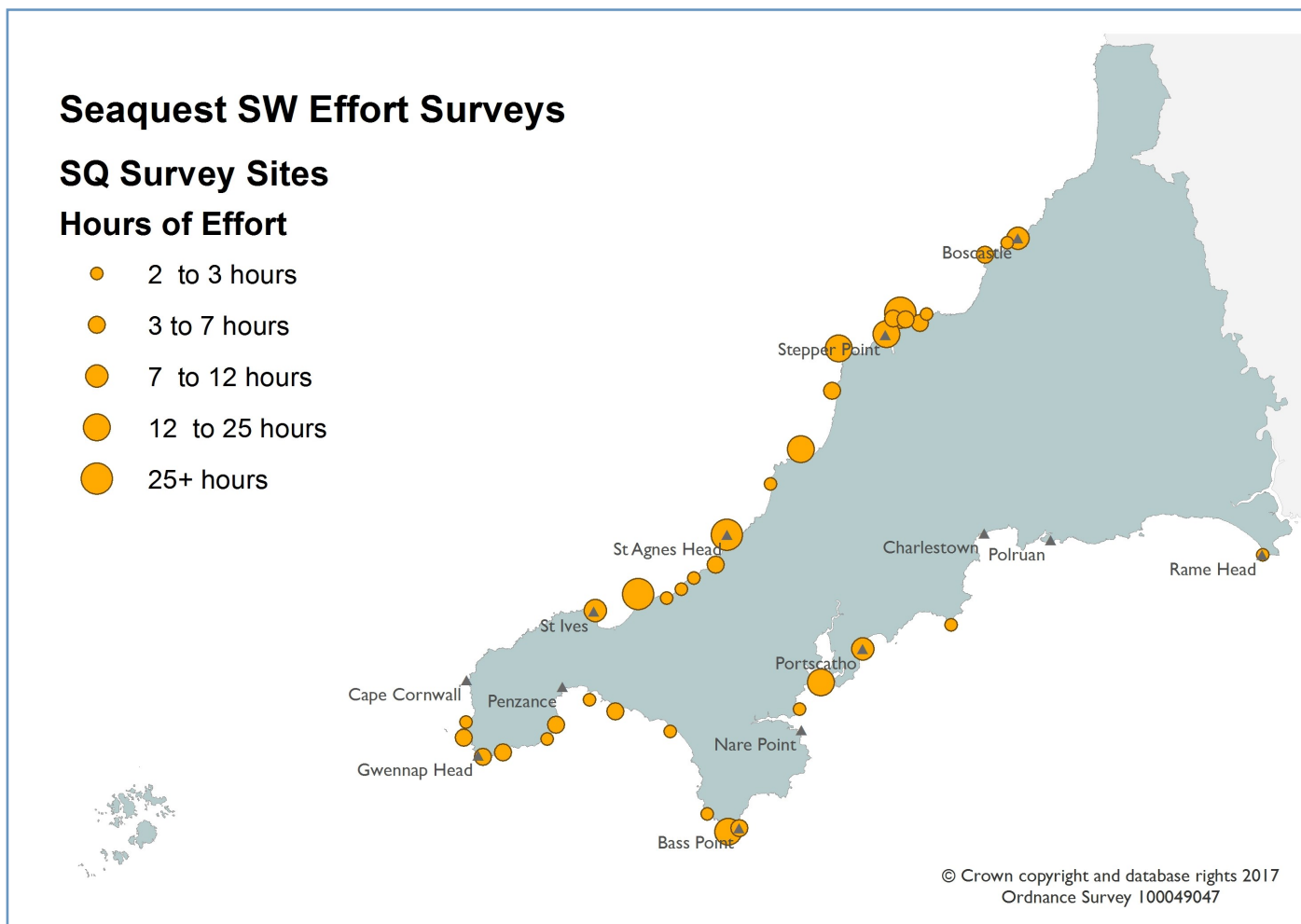


Figure 5. Map to show the total time, represented by the size of the circle, spent at all Seaquest survey points in 2016 by trained volunteers.



2016 Seaquest Survey Data

Table 3. Top ten Seaquest survey spots in 2016 ranked by total survey time. Further survey data can be provided upon request via a data request to the Wildlife Information Service - wis@cornwallwildlifetrust.org.uk.

BND: Bottlenose dolphin, **GS:** Grey seal, **CD:** Common dolphin, **OS:** Ocean sunfish, **HP:** Harbour porpoise
Dol Sp: Dolphin of unknown species

Sea watch points	No. of surveys	Total survey time (hr:min)	Time observing animals (hr:min)	Rate of sightings (%)	No. of known species seen	Species
St Agnes	34	86:15	22:30	26%	5	BND, CD, HP, GS, OS
The Rumps	26	64:15	32:15	50%	5	BND, CD, HP, GS, OS
Godrevy	12	23:30	14:15	61%	3	BND, GS, OS
Towan Head	10	20:30	07:30	37%	5	BND, CD, HP, GS, OS
Lizard	9	19:15	17:30	91%	3	CD, HP, GS
Pendennis point	9	15:15	01:15	8%	3	HP, GS, Dol sp.
Trevoze Head	7	14:45	06:00	41%	6	BND, CD, HP, GS, OS, Dol sp.
Stepper Point	5	11:45	06:30	55%	4	CD, HP, GS, OS
Boscastle	5	10:45	00:30	5%	1	OS
Porthscatho	3	10:15	00:45	7%	1	GS

37 sites were surveyed by trained Seaquest volunteers in 2016. The table above ranks the top ten survey sites by total survey time spent at each location (with highest time at the top). North coast sites appear to be more popular with Seaquest volunteers for regular sea watches.

The number of sightings is clearly affected by the amount of time spent at each survey spot, therefore for a more accurate idea of the level of sightings it is better to refer to the rate of sightings at each site, given here as a percentage. This shows that the Lizard was the best site for wildlife sightings by trained Seaquest volunteers in 2016. It is important to note that the rate of sightings will also be affected by factors such as the number of surveyors present at the time of the survey and the mobility of the species being observed.

During surveys and trips we always encourage our volunteers to get photographic data to help validate the sightings, such as this photo of a bottlenose dolphin sighting by Kate and Dave Williams at St Agnes Head in 2016 (right). These can be uploaded via ORKS or sent in to seaquest@cornwallwildlifetrust.org.uk for confirmation.



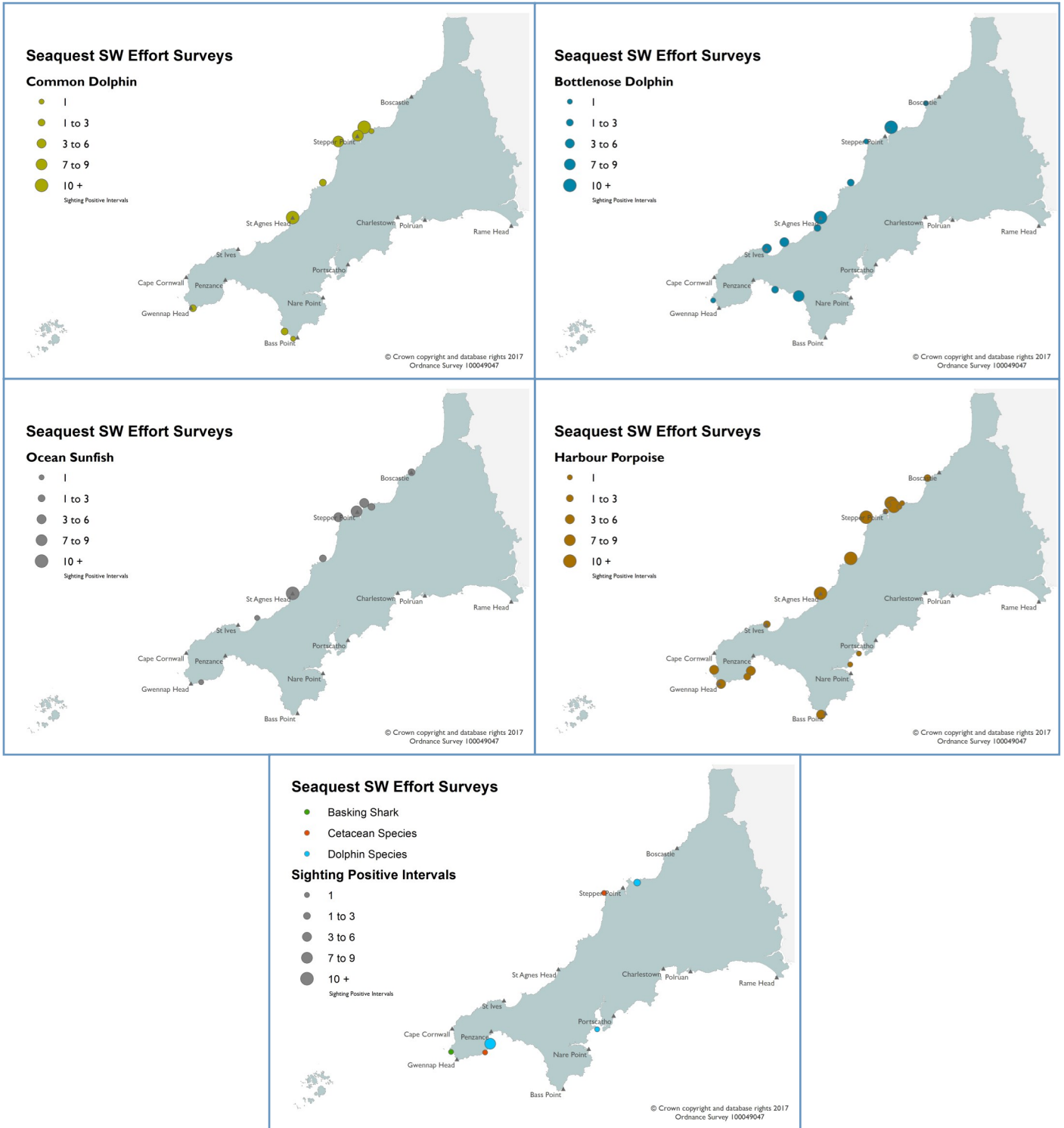


Figure 6. Distribution of all reported sightings during Seaquest land based effort surveys in 2016 by trained Seaquest volunteers.



Seaquest Public Engagement

Increasing public participation and educating a wider audience in the importance of our marine environment is key to achieving the aims of the Seaquest project.

Seaquest Southwest relies upon public participation to produce new volunteers, to submit sightings, and to spread awareness of the project.

During 2016 Seaquest Southwest organised a whole host of public events, evening talks, boat trips and social events to engage with people of all ages and abilities.

Seaquest Sundays

On the first Sunday of every month we encourage our trained volunteers to go and survey their local spots to get a monthly snapshot of the activity around Cornwall on the same day. These surveys bring in a whole host of sightings from some of the busiest look out points. Thanks to support from Newquay Marine Group, the St Agnes Marine Conservation Group, and the Lizard Wildlife Watch Point as well as our brilliant volunteers, over **50** surveys took place on a Seaquest Sunday during 2016.

The Seaquest Roadshow

The 2016 Roadshow focused on the bottlenose dolphin after the CWT fundraising appeal in 2015. There were some patches of inclement weather however there were over **380** people engaged in 5 locations around Cornwall, during the roadshow week.

Public sea watches and the National Whale and Dolphin Watch

There were **12** public sea watches in 2016 which included sightings of harbour porpoise and grey seals. Outside of our survey times we saw a family of risso's dolphins at Pendennis and a bottlenose dolphin at Towan Head in Newquay, therefore it really paid off being early and hanging around for a chat afterwards! Seaquest Southwest supported the Sea Watch Foundation with their national Whale and Dolphin Watch via our public sea watch event in St Agnes on the 24th July 2016, and through social media and sharing of sightings data.

Lundy Bay Bioblitz

This year saw the first Lundy Bay Bioblitz, organised by the National Trust, aiming to collect as many species records over the 48 hour period as possible within the site in North Cornwall, near Polzeath. Seaquest Southwest assisted the event with its effort, land-based surveys and sea watching activity and recorded porpoises, ocean sunfish and several unknown marine mammal species (unknown due to adverse water conditions at the time!).

Boat trips

Cornwall's boat tour operators kindly share their ad-hoc sighting records with Seaquest (see page 15 for thanks). In addition, Seaquest organises public boat trips with these operators as part of the annual programme. In 2016 we organised 5 trips, these often being organised through our weekly newsletters due to boat availability, tourist season, and weather conditions.



Southwest Bottlenose Forum

The aim of the Southwest Bottlenose Dolphin Forum, held on 29th October 2016 and kindly hosted by University of Exeter's Marine Ecology and Conservation Network (MECN), was to bring experts, volunteers and the general public together to celebrate this iconic species, and move regional research forward to ensure better protection for these animals in our Southwest waters.

The day consisted of a selection of presentations by speakers from across Europe. All present learnt a lot from other areas of the country and global research, particularly on the impacts of organic contaminants, tourism, and how this species are culturally diverse among different populations. It was concluded that collaborative, long term, and multi-disciplinary research and analysis was key to effective conservation. However, it's not all about research; we can promote and enhance people's understanding of these amazing animals, and encourage collaboration – a key element of what the conference has been all about.

There was general support for the SW Bottlenose Dolphin Consortium to be established. It was agreed that this Consortium will be a partnership of various stakeholders throughout the Southwest of England sharing a common interest in developing an understanding and conservation of the region's bottlenose dolphins. A Steering Group will co-ordinate the Consortium and will produce the Terms of Reference, and formal Data Sharing Agreement for all collaborators.

The Steering Group will also look for potential funding and resource to progress the work proposed. The central contact for the SW Bottlenose Dolphin Consortium Steering Group is Cornwall Wildlife Trust as an independent broker. Contact: Ruth Williams, Marine Conservation Manager, Cornwall Wildlife Trust. ruth.williams@cornwallwildlifetrust.org.uk for more information.



Seaquest Data

The amount of data that our volunteers record and send to us is extremely valuable, extensive, and almost impossible to communicate fully in one bitesize, summary report like this. Due to this, the data represented in our figures portrays the full range of sightings, however the data in the tables is only a snap shot of the sightings and surveys conducted each year. If you wish to access full Seaquest data please enquire via a data request to the Wildlife Information Service (WIS) at ERCCIS via email wis@cornwallwildlifetrust.org.uk.



Bottlenose dolphin calf in 2016. Photo by Chris Oates

Special Thanks to Contributing Partners

We would like to express our gratitude to Matt Thurlow and Katie Drake who assisted the Living Seas team at CWT as the volunteer Seaquest Coordinator's in 2016, particularly Matt for the work behind this report. A huge thank you also to ERCCIS and in particular Niki Clear for her assistance with data analysis and mapping.

An enormous thank you to every volunteer who contributed to Seaquest in 2016, either time, effort or data (or cake!).

The Seaquest Southwest team wishes to also say a special big thank you to all of the organisations that have shared their data and contributed to the project in 2016. We are extremely grateful for the cooperation and coordination from the following businesses and organisations on whom we heavily rely on:

- AK Wildlife Cruises in Falmouth, Atlantic Diving in Newquay, Padstow Sea Life Safaris, Marine Discovery in Penzance and Helford River cruises for sharing their ad hoc sightings data and hosting Seaquest trips.
- University of Exeter for hosting the vastly successful Southwest Bottlenose Dolphin Forum.
- Tintagel Castle (English Heritage), Cornish Seal Sanctuary, Falmouth Maritime Museum, Blue Reef Aquarium and Padstow Town Council for hosting our Seaquest Roadshow 2016.
- Cornwall Seal Group Research Trust and the Newquay Marine Group, St. Agnes Marine Conservation Group and Polzeath Marine Conservation Group for their boat survey sightings.
- All of the NCI Coastwatch Stations for their sightings data and support including just a friendly face or a dry and warm shelter during our public events.
- The Sea Watch Foundation for their partnership in sharing data and events.

Seaquest in 2017

Seaquest Southwest Project communicates with its volunteers and followers via the following routes:

- Website: www.cornwallwildlifetrust.org.uk/seaquest
- Email: seaquest@cornwallwildlifetrust.org.uk
- Facebook: 'Cornwall Wildlife Trust Seaquest Southwest'

2017 volunteer Seaquest Coordinator - Katie Bellman

As a theatre designer in London in the past, a change of interest and passion brought me to Cornwall to learn about the marine world. I am studying Marine Conservation at Cornwall College Newquay, before a BSc in Applied Marine Zoology. I have become fascinated with the marine environment and the amazing variety of life within it. I'm currently looking at haul-out behaviour of grey seals as part of my course.

I have got involved with local groups and wildlife charities to broaden my knowledge and experience of marine life, including surveys for Cornwall Seal Group Research Trust, attending conferences and regular beach cleans, is a large part of my life. As the student liaison of Newquay Marine Group and the coordinator of the Seaquest events in Newquay, I've been able to interact with some brilliant people. I'm excited for the opportunity to broaden my knowledge, improve cetacean spotting skills and meet more people through my new role as Seaquest Co-ordinator in 2017.



2017 volunteer Seaquest Coordinator, Katie Bellman.

2016 was an excellent year for the Seaquest programme. Compared with 2015 we had increased numbers of: reports of animal sightings; hours spent sea watching and surveys conducted. The Seaquest project is growing year on year and will help us increase our understanding of marine animal activity around Cornwall, which in turn will enable us to push where and when needed for better protection. Thank you again from the Seaquest Southwest team at the Cornwall Wildlife Trust. We look forward to seeing you all on the cliffs again soon!