

# Somerset and Exmoor Sea Watch

## 2019 Report



# Somerset and Exmoor Sea Watch

My Somerset and Exmoor Sea Watch Regional Coordinator role continued into 2019. Both casual and effort sightings continued to be recorded throughout the year from the sightings hotspot at Hurlstone Point. I was pleased to add a new training day location at Clevedon Pier in April, and confirmed sightings of harbour porpoise were recorded in Portishead, helping to raise awareness of marine mammals in north Somerset. A new regular observer at Lee Abbey overlooking Lee Bay provided us with some brilliant data too. I and two other regular observers were able to complete 7 effort surveys for National Whale and Dolphin Watch this year with sightings of harbour porpoise and grey seals towards the end of the event at Hurlstone Point.

I am looking forward to working in partnership with the Somerset Wildlife Trust as part of their Somerset's Brilliant Coast project in 2020 and thank them for all their support.

2019 sightings data has been included in this report from the counties of Somerset and North Somerset and also from the Exmoor coast which includes Somerset and North Devon. All these locations will be referred to as 'region'.

## Overview 2019

<b>67</b> Sightings reported	<b>1</b> Cetacean species Reported	<b>2</b> Marine mammal species reported
<b>29</b> Effort surveys completed	<b>58</b> Effort survey hours	<b>3</b> Training days
<b>7</b> People submitted sightings and/or effort data	<b>4</b> Effort survey locations	<b>5</b> NWDW surveys

# Effort Surveys

A better understanding of marine mammals is achieved by collecting robust data through effort based surveys. These surveys are carried out by trained regular observers following Sea Watch Foundation survey protocol. They are timed surveys; for a minimum of two hours, where environmental data as well as sightings data is recorded every survey interval of 15 minutes. Even when no species are seen, it is important to have a measure of effort in order to interpret sightings more effectively.

The information collected not only gives us a snap shot of what is out there but can inform us of any areas of the coast which are important for their survival such as feeding, resting or calving grounds. It can also provide an insight into their seasonal and annual changes in abundance and distribution, which can all contribute towards effective protection and conservation for these species.

In 2019 a total of 29 effort surveys were completed by 4 regular observers, consisting of 58 hours of effort at four different locations along the projects region. These locations are Lee Bay (Exmoor, North Devon), Hurlstone point (Exmoor, Somerset), Battery point (Portishead, North Somerset), and Clevedon pier (North Somerset). There were 2 different species sighted during the effort surveys: harbour porpoise and grey seal.

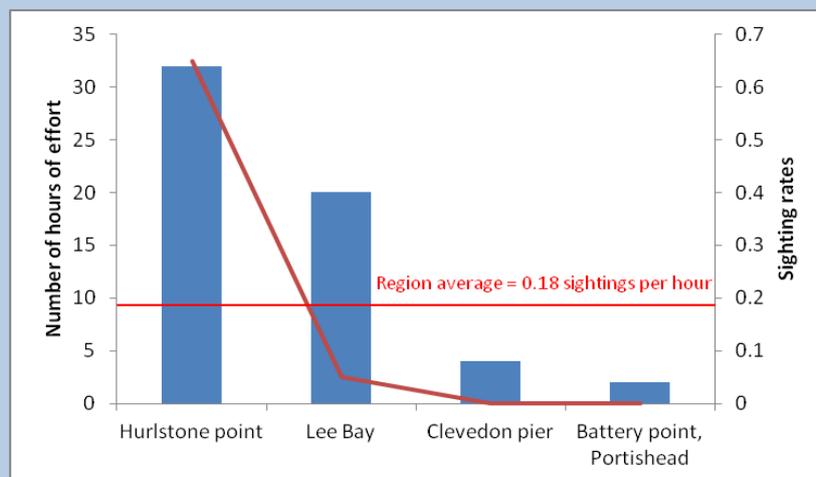


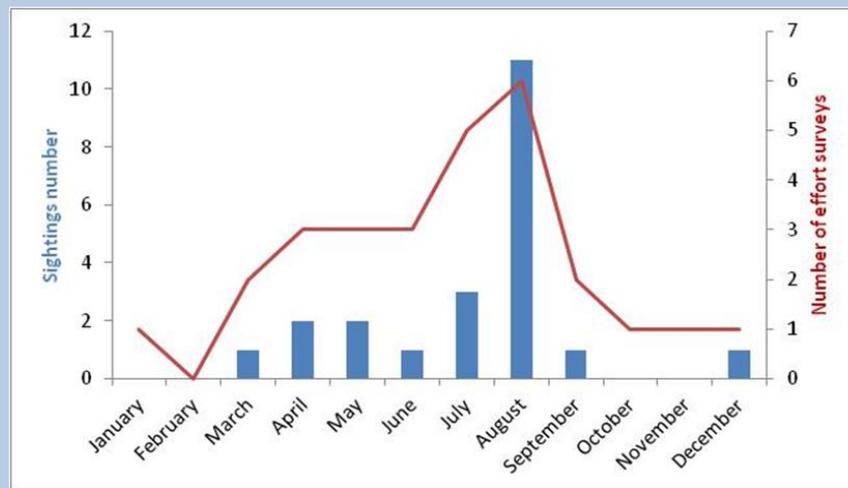
Figure 1. Number of hours of effort and sighting rates at each effort survey location

The highest number of hours of effort was at Hurlstone point, and all the sightings in 2019, except one were recorded here. Lee Bay has a considerably lower sighting rate, even though 20 hours of effort were conducted here in 2019. During an effort survey, regular observers use the Beaufort Sea State Code (Sea state 0-6) to record the wind speed and its effect on the water surface. The sea state must be recorded because it affects the probability of a sighting, and each increase in sea state results in a decreased chance of sighting an animal when present. In high sea states cetacean detection becomes very unlikely and this limits the value of the data collected. For this reason sea watch surveys are not carried out in conditions above a sea state 3. At Lee Bay 4 out of 10 of the effort surveys were completed in a sea state above 3, and therefore skewed the results for this location.

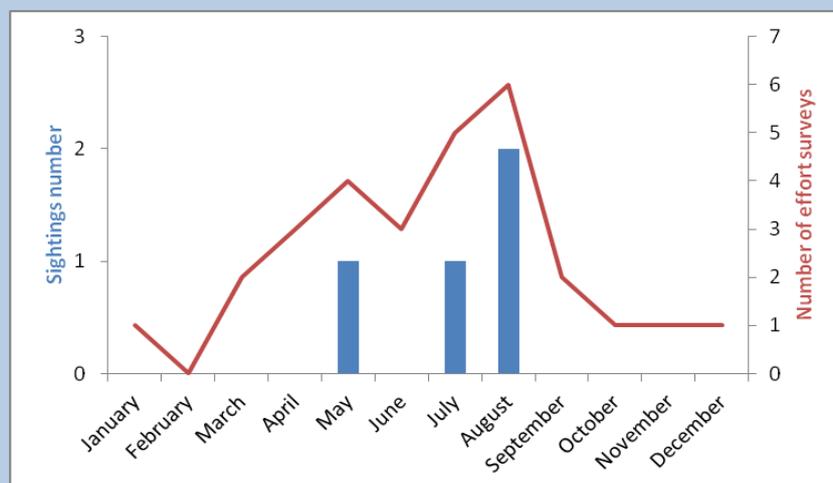
Species	Average group size	Number of sightings	Sightings rate	Number of individuals
Harbour porpoise	2	17	0.29	34
Grey seal	1	4	0.07	4

**Table 1. Quantitative description of sightings per species during 2019**

Table 1 shows the sighting rates for the whole region for each species sighted. The sightings rate for harbour porpoise was 0.29 i.e. 1 harbour porpoise sighting every 3 hours of effort. Harbour porpoise were the most commonly sighted species, with 17 sightings recorded from March to December. The second most surveyed site was at Lee Bay; with one sighting of two harbour porpoise at the end of August. Grey seal sightings were more sporadic throughout the year, with just 4 sightings in 2019.



**Figure 2. Seasonality of harbour porpoise sightings numbers and number of effort surveys per month in the project region**



**Figure 3. Seasonality of grey seal sightings numbers and number of effort surveys per month in the project region**

Seasonality comparisons need to take into account weather conditions and surveyor bias to survey during summer months. Throughout 2019 there were more effort surveys conducted in the summer months, and as can be seen in figure 2 the highest number of harbour porpoise sightings was in August. However, the highest number of casual sightings of harbour porpoise was recorded in January (Figure 4) indicating presence of this species is all year round. An increase in effort surveys every month of the year would contribute to more accurate seasonality comparisons and abundance estimates.

# Casual

Casual sightings are those as-and-when sightings of animals when volunteers and members of the public are out and about and not actively searching for marine wildlife within a set timeframe.

A total of 47 sightings of marine mammals were recorded in 2019, consisting of 2 different species; harbour porpoise and grey seal. There were also two sighting reports of unidentified cetacean species, one at Hinkley Point and one from the RNLI station in Portishead, The latter sighting consisted of a fast swimming pod between 10-15 individuals in February 2019. Unfortunately there were no photos or videos available to confirm the species.

Species	2017	2018	2019
Harbour porpoise	22	34	41
Grey seal	4	7	4
Bottlenose dolphin	0	2	0
Common dolphin	2	2	0
Unidentified cetacean species	0	0	2

Table 2. Number of casual marine sightings between 2017 and 2019

Below are the first photos received of harbour porpoise seen from Portishead's coastline on March 22<sup>nd</sup> 2019.



There was an increase in casual harbour porpoise sightings in 2019, compared to 2018 (Table 2). As shown in figure 4, harbour porpoise were sighted all year round in 2019 with the highest number of sightings recorded in January, followed by May and June, and a peak in November. The monthly trends in sightings most likely reflect favourable weather conditions for spotting marine mammals, i.e. a flat calm sea.

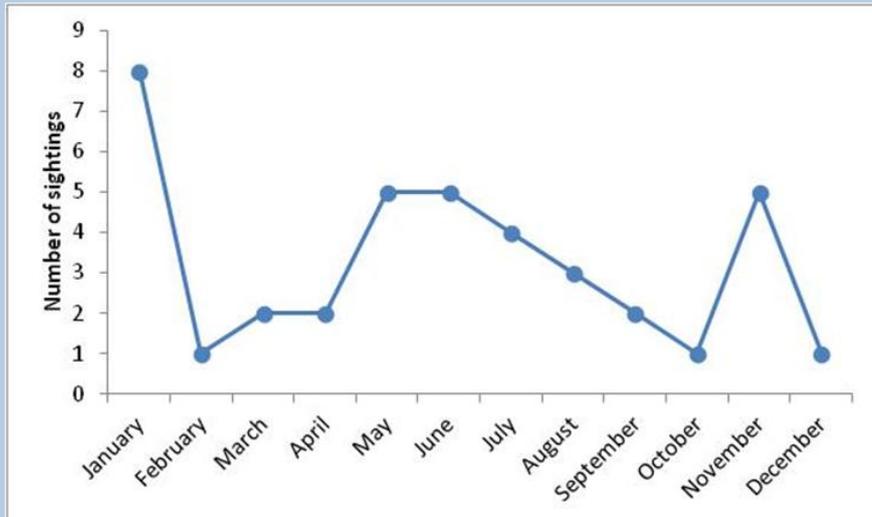


Figure 4. Seasonality of harbour porpoise casual sightings

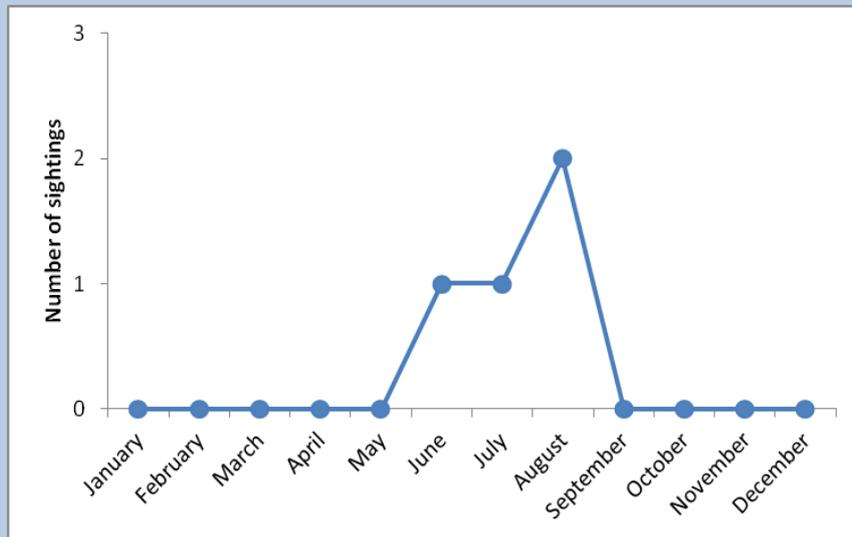


Figure 5. Seasonality of grey seal casual sightings

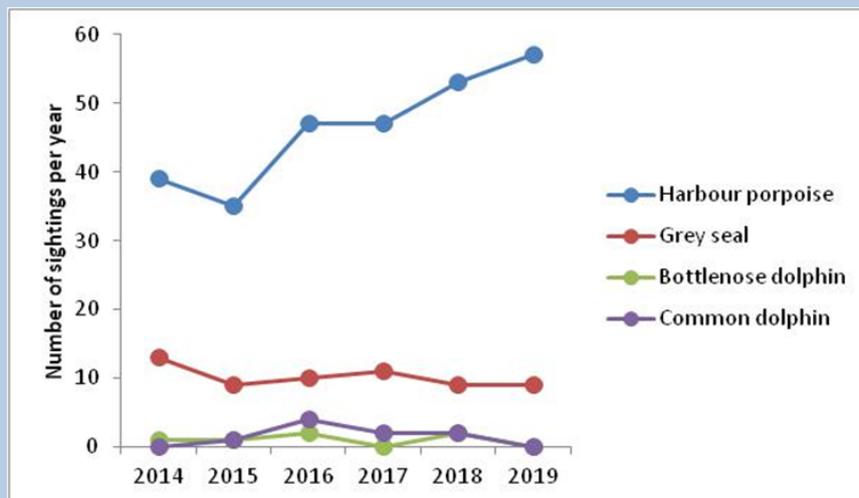


Figure 6. Marine mammal casual and effort sightings numbers

As can be seen in Figure 5, grey seals are not as abundant as harbour porpoise and in 2019 have been recorded between June and August.

Both casual and effort sightings of harbour porpoise have increased in number from 2014 to 2019 (Figure 6), despite there being a decrease in the number of regular observers conducting effort surveys from 5 to 4 people. As can be seen in Figure 7, the number of effort surveys is similar in 2019 compared to 2014, and within the same timeframe there was an increase in harbour porpoise sightings. The decrease in effort surveys in 2018 still yielded similar sighting numbers compared to 2014 indicating an increase in abundance of this species.

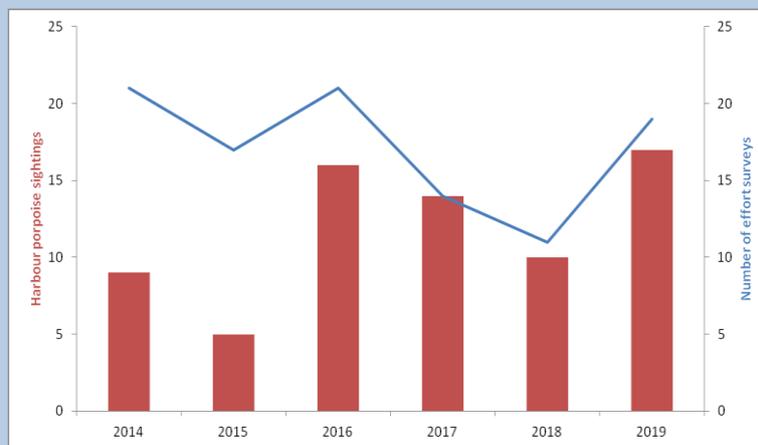


Figure 7. Number of harbour porpoise sightings and effort surveys from 2014 to 2019.

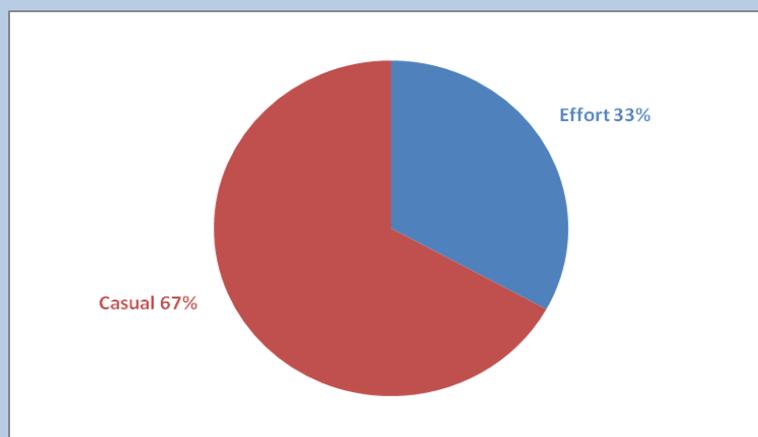


Figure 8. Proportion of effort related sightings (33%) and casual sightings (72%) (total number=178) recorded during 2014-2018

# Vision for 2020 and beyond

Firstly I want to increase the number of regular observer volunteers contributing effort data, which is currently 4 volunteers. I will aim to achieve this by providing more training opportunities from 3 to 4 days, as well as through expanding the number of public sea watches at different locations every month throughout 2020. This will provide opportunities for volunteers to practice their survey skills, and also ensure we are covering the whole of the region for volunteers to have access to sites within their local area. This is key for this region because figure 8 shows the majority of sightings have been from casual recorders.

Secondly I want to increase the number of locations used to provide effort survey data; in 2019 this was across 4 sites. This will enable it to be possible to draw more general long-term trends in abundance and distribution of a species as well as any status changes. To achieve this I will be organising public sea watches at a different location every month throughout 2020 resulting in 12 different survey sites.

Thirdly I aim to maintain the number of effort surveys recorded at Hurlstone Point, which was a total of 16 surveys in 2019. Both casual and effort sightings have predominately been recorded from Hurlstone Point and it is here where the most species have been sighted. Hurlstone Point appears to be an important area for harbour porpoise all year round, with the most common behaviour observed associated with foraging. Also mother and calf pairs have been recorded at Hurlstone point, with a total of 5 of these sightings in 2019.

Lastly I will aim to publish my 2020 report by the end of February 2021 and disseminate my findings to as many relevant organisations as possible so that this can be used by the wider scientific community and ensure it is accessible to the general public.