Hope

Using citizen science to determine the frequency and distribution of harbour porpoise sightings across Sussex

Victoria Hope
research@sussexdolphinproject.org
The Sussex Dolphin Project, Unit D 132-134 Albion Street, Southwick, Brighton,BN42 4DP

6

Abstract

The Sussex coast has a variety of habitats and supports rich communities of invertebrate populations, communities of seaweeds and spawning areas for various fish species. Recordings of harbour porpoise *Phocoena phocoena* in the region's nearshore waters have become more regular. The intense tourist industry along the Sussex coast has created one of the most densely urbanised coastal zones in the UK. This provides the opportunity of increased casual sightings of harbour porpoise along the coast.

Introduction

The aim of this study was to use the casual sightings data submitted to the Sussex Dolphin Project (SDP) by the public to identify:

- The areas in Sussex with the highest reported sightings of harbour porpoise.
- The seasons with the most reported sightings.
- The year with the most reported sightings.

Methodology

Opportunistic sightings data were collated through sightings submitted to SDP via the organisation's website and social media platforms with associated photo or video for verification.

Figure 1. Harbour porpoise along the Sussex coast (2022).

Results

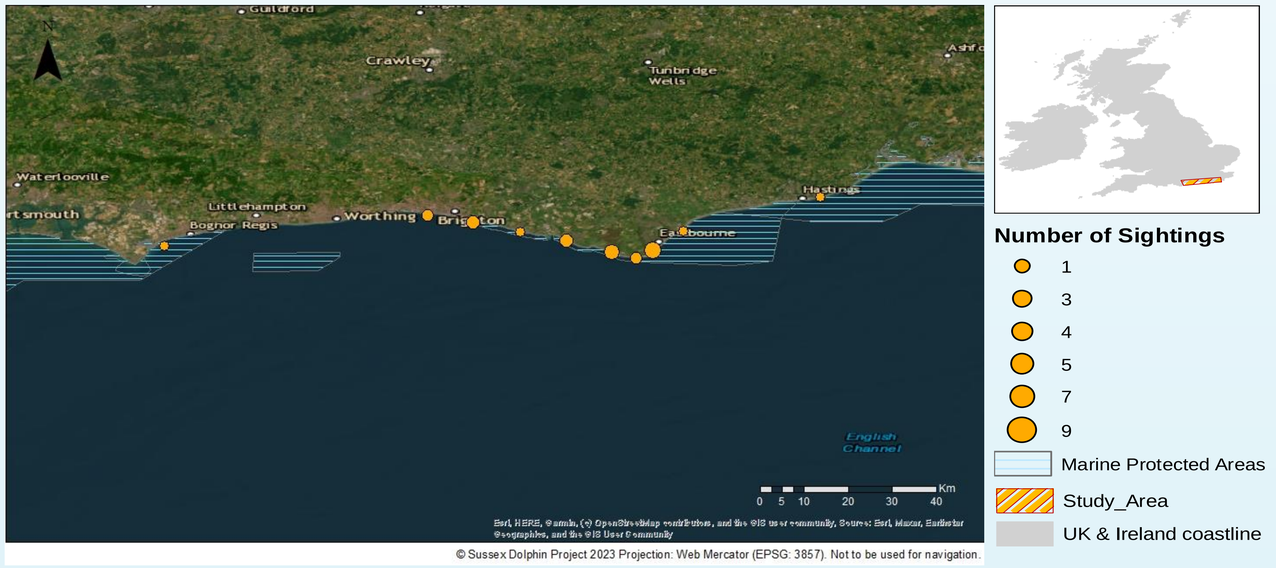

Figure 2: Map of the distribution of harbour porpoise sightings across Sussex from 2017 to 2022. The boundaries of the MPA's are shown in blue lines: Solent and Dorset Coast SPA, Selsey Bill and the Hounds MCZ, Kingmere MCZ, Beachy Head East MCZ, Beachy Head West MCZ and Dungeness, Romney Marsh and Rye Bay SPA.

Table 1. Number of harbour porpoise sightings recorded across seasons between 2017 to 2022 along the Sussex coast.

Season	Sightings
Spring (March-May)	11
Summer (June-August)	19
Autumn (September-November)	5
Winter (December-February)	1

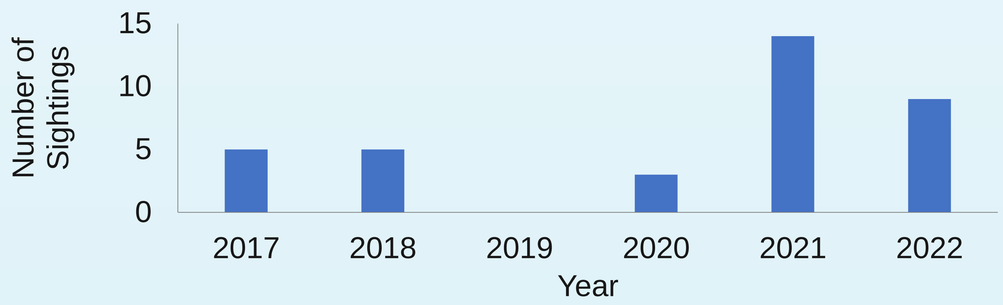

Figure 3. Number of sightings of harbour porpoise along the Sussex coast from 2017 to 2022 from citizen science data.

Conclusions

- The sightings of harbour porpoises reported in this study may be influenced by sampling effort.
- The year 2021 had the most sightings of harbour porpoises reported. Probability of being influenced by the lifting of the third national lockdown in the UK, allowing more freedom to the public post covid.
- Citizen science has proven to be useful and a cost-effective tool in collecting data.
- Most sightings reported across years and seasons were within marine protected areas.
- This study has highlighted the potential importance of Beachy Head West MCZ and Beachy Head East MCZ for harbour porpoise presence.

Acknowledgements: Thank you to everyone that submitted their sightings to SDP. This study would not have been possible without the citizens science data.