Date: 13th April 2026

Ms Sarah Holmes

Lead Panel Member for the Examining Authority
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

By email: southeastanglialink@planninginspectorate.gov.uk

RE: Sea Link (EN020026) Nationally Significant Infrastructure Project (NSIP) Application – Deadline 6 Third Written Questions (ExQ3) – Kent Wildlife Trust (F0B50218B)

Kent Wildlife Trust ("KWT") has reviewed the Examining Authority's ("ExA") Third Written Questions ("ExQ3"). Our response to the two questions directed towards KWT and other Interested Parties are outlined in the table below.

ExQ3	Question:	KWT Response:
3GEN2.	**Critical national priority** Paragraph 4.2.15 of NPS EN-1 says that where residual non-habitats regulations assessment or non-Marine Conservation Zone (MCZ) impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for CNP infrastructure. It goes onto say that the exception to this presumption of consent are residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. The same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk. a) Without prejudice to the position of any party, are there any issues in this case that might potentially fall into this category of the exceptions to this presumption of consent? For	**a) Potential exceptions to the presumption of consent** For clarity, KWT's remit is focused on impacts to ecology and biodiversity. Whilst there may be additional examples relevant to other areas, such as flooding, defence, or human health, these fall outside our direct area of expertise. The absence of comments on such matters in this submission should not be interpreted as an indication that no such risks exist, but rather that our advice is necessarily confined to ecological considerations. Additionally, where other ecological concerns have not been explicitly referenced within this submission, including those raised by other environmental NGOs, this should not be taken to mean that such issues do not exist or are not valid. It simply reflects the scope of KWT's review, rather than a comprehensive account of all ecological risks associated with the proposed project. That said, KWT considers that there are several issues within this application that could fall within the exceptions to the presumption of consent set out in paragraph 4.2.15 of NPS EN-1. Most notably, we agree with the ExA's position regarding impacts to the Outer Thames Estuary SPA and its internationally important population of red-throated diver. The lack of information regarding emergency cable repair scenarios during the winter period represents a clear and material evidential gap. As identified by Natural England, such works would result in an adverse effect on the integrity of the SPA due to disturbance. In the absence of avoidance, mitigation or compensation, this raises the realistic potential of unacceptable risk to an irreplaceable habitat, namely a European designated site protected

	example, might the issue of flooding and the application of the sequential and exception test potentially fall into this category in the event of there being an "unacceptable risk"? b) Are there any further submissions any party wishes to make on the potential application of CNP policy in this case (should it be required)?	under the Conservation of Habitats and Species Regulations 2017. As such, this issue clearly has the potential to fall within the stated exemptions to the CNP presumption. In addition, KWT considers that the proposed use of the Hoverport site presents a further and significant example of potential unacceptable risk. Evidence indicates the presence of historic contamination within the Hoverport, including coal residues and associated deposits. The proposed movement of heavy plant and construction vehicles across the site creates a credible pathway for the mobilisation of contaminants. This risk is further exacerbated by the existing condition of the hardstanding, with areas of tarmac already visibly cracked and the edges of the Hoverport showing signs of erosion. This existing degradation significantly increases the likelihood that underlying contaminated materials could be exposed and transported into the adjacent aquatic environment. As a result, there is a credible risk of: • Mobilisation of contaminated sediments; • Deterioration in water quality, including increased acidity; and • Release of toxic heavy metals into the adjacent Thanet Coast and Sandwich Bay SPA. These risks could result in significant adverse effects on irreplaceable saltmarsh habitat, subsequently resulting in adverse effect on the integrity of the Thanet Coast and Sandwich Bay SPA and Ramsar, which constitute an unacceptable risk to irreplaceable habitats and the marine environment. Additionally, this matter also involves considerations of public safety and human health, as the mobilisation of heavy metal contaminants into coastal and marine waters could pose risks through bioaccumulation in the food chain, potential exposure via recreational activities, and wider impacts on water quality. As such, the consequences of this risk extend beyond ecological harm alone and reinforce the seriousness of the Applicant's failure to adequately avoid or mitigate these impacts. KWT considers that this is not a situation where impacts are unavoidable. The Mitigation Hierarchy requires impacts to be avoided in the first instance, then reduced and only then mitigated or compensated. In this case: • Avoidance – the risk could be avoided entirely through the selection of an alternative access route or construction approach that does not rely on the Hoverport

		• Reduction/Mitigation – at a minimum, works could be undertaken to stabilise and repair the Hoverport surface (including addressing cracked tarmac and eroding edges) to prevent the mobilisation of contaminated materials from entering the marine environment. These options were raised during ISH2; however, the Applicant declined to pursue them. In KWT's view, this represents a clear failure to properly apply the Mitigation Hierarchy. The Applicant has not demonstrated that impacts have been avoided where possible, nor that all reasonable steps have been taken to reduce or mitigate the identified risks. Instead, the current approach appears to accept a potentially avoidable risk of pollution to a highly sensitive designated site without sufficient justification. In these circumstances, it cannot be concluded that residual impacts are truly unavoidable, and therefore the Applicant should not be able to rely on the CNP policy presumption in favour of consent. Another example that we believe falls within the exceptions to the presumption of consent under CNP is the Applicant's failure to properly assess cumulative impacts. KWT considers that the Applicant's Cumulative Impact Assessment is fundamentally flawed due to the omission of the Aberdeenshire to Richborough project, which is a reasonably foreseeable scheme identified within NESO's Holistic Network Design ("HND") and its Implementation Plan. The Applicant cannot rely on this same strategic framework to justify the need for Sea Link while excluding other HND projects from assessment. This represents a selective and inconsistent application of evidence. The exclusion of this project results in a failure to assess the full extent of in-combination impacts at Pegwell Bay, particularly on internationally important and irreplaceable habitats, including intertidal and saltmarsh environments within designated sites. In the absence of a precautionary, worst-case cumulative assessment, there remains a real risk that impacts have been underestimated. As a result, it cannot be concluded that the Mitigation Hierarchy has been properly applied or that all impacts have been avoided or minimised. This raises the realistic potential for unacceptable effects on irreplaceable habitats, which falls squarely within the stated exceptions to the CNP presumption of consent. Another key example is the proposed mitigation site for golden plover. KWT is firmly of the view that the proposed

		mitigation land will not be suitable for golden plover and is highly unlikely to be used by the species. The site is not functionally comparable to the existing habitat and is subject to multiple disturbance factors. This indicates a failure to adequately avoid or minimise impacts in the first instance, with the Applicant instead relying on compensation that is not fit for purpose. As such, the proposal would result in a permanent loss of habitat available to qualifying features of the Thanet Coast and Sandwich Bay SPA. When considered cumulatively with the additional loss of approximately 160ha of functional linked land arising from other developments, this demonstrates that the Mitigation Hierarchy has not been properly followed, and that residual impacts remain both significant and uncertain. In these circumstances, it is unclear how the Applicant can robustly conclude that there would be no adverse effect on site integrity. The residual impact, arising from ineffective mitigation and inadequate compensation, may reasonably be characterised as presenting an unacceptable risk to irreplaceable habitats, thereby engaging the exceptions to the CNP presumption. We strongly affirm that these issues have the potential to fall within the exceptions set out in paragraph 4.2.15 of NPS EN-1 as it presents a credible risk of unacceptable environmental harm, public safety and human health that has not been properly addressed through the Mitigation Hierarchy. **b) Submissions on the application of CNP policy** KWT emphasises that the policy presumption in favour of consent for CNP infrastructure is not unconditional. It is explicitly dependent on the proper and demonstratable application of the Mitigation Hierarchy. Throughout this process, from pre-application stage to Examination, KWT have consistently raised concerns that the Applicant has not adequately applied the Mitigation Hierarchy, particularly in relation to site selection and routing. Specifically: • The selection of the converter and substation locations has resulted in avoidable impacts to designated sites and loss of functionally linked land; • Reasonable alternatives that could have reduced or avoided these impacts do not appear to have been robustly explored or presented; and • The approach taken suggests a reliance on mitigation and compensation, rather than

		prioritising avoidance at source, which is contrary to established good practice and policy expectations (see our Deadline 1 response for more details). This is directly relevant to the application of CNP policy. Paragraph 4.2.15 of NPS EN-1 makes clear that the presumption in favour of consent applies only after the Mitigation Hierarchy has been properly followed and residual impacts are genuinely unavoidable. During ISH3, the ExA stated they are: "*not convinced that the Applicant has demonstrated that all residual impacts are those that cannot be avoided, reduced, or mitigated*." KWT agrees with this position. Where impacts could have been avoided through alternative design or site selection, but were not, those impacts cannot reasonably be characterised as "residual" in policy terms. In such circumstances: • The Applicant's reliance on CNP is significantly weakened; and • The decision-maker cannot lawfully or policy-compliantly conclude that the benefits of the project outweigh its impacts. KWT considers that there are credible examples in this case (including impacts to the Outer Thames Estuary SPA and Thanet Coast and Sandwich Bay SPA and Ramsar) that may fall within the exceptions to the presumption of consent, and the Applicant has not demonstrated that the Mitigation Hierarchy has been properly applied, meaning that reliance on CNP policy is not currently justified.
3MM2.	**Kent Dolphin Project** Kent Wildlife Trust to provide the applicant with a copy of the Kent Dolphin Project report as requested in [REP5-132] and the applicant to provide an updated ES part 4 chapter 4 Marine Mammals [REP5-023] including qualitative data from marine mammal observations in the area.	KWT has provided a copy of the Kent Dolphin Project 2025 report, as requested in [REP5-132] and this has been appended to this Deadline 6 submission. KWT welcomes the ExA's requirement for the Applicant to include evidence from the Kent Dolphin Project 2025 report into their ES Chapter 4: Marine Mammal [REP-023] document, as this represents a more relevant and locally informed dataset compared to the broad-scale data currently relied upon within their current assessment. However, KWT maintains our long-standing position that the Applicant should have undertaken dedicated, site-specific marine mammal surveys to establish a robust

		baseline. This is a point we have consistently raised since the pre-DCO application stage. The absence of such surveys represents a significant gap in the evidence base. The inclusion of the Kent Dolphin Project 2025 data is a clear improvement on the current assessment, which assumes an absence of cetacean species within the Order Limits. The observational data and data collected from the Sea Watch Foundation, the National Biodiversity Network Atlas, the National History Museum's Historical Strandings database and Joint Cetacean Data Programme, demonstrates that cetaceans, such as bottle nose dolphins and harbour porpoise, are present within the Pegwell Bay and wider area, and therefore must be appropriately considered within the impact assessment. Whilst this update does not fully address our concerns regarding the adequacy of the marine mammal baseline, it is a positive step towards a more realistic and evidence-based assessment of potential impacts. KWT also requests clarification from the ExA as to whether Interested Parties will be afforded sufficient opportunity within the Examination timetable to review and comment on the Applicant's amended marine mammal chapter, including how the Kent Dolphin Project data has been interpreted and applied within the assessment. As the Examination is due to close on 5th May 2026, KWT has concerns regarding the limited timeframe for the Applicant to make amendments and for Interested Parties to be given a meaningful opportunity to review and respond to those changes.

We hope that our response to ExQ3 and expertise will be of assistance to the Examining Authority. If you require any further information or would like to discuss our response in more detail, please do not hesitate to contact me.

Kind regards,

[redacted]
Senior Planning & Policy Officer
Kent Wildlife Trust
[redacted]@kentwildlife.org.uk

Kent Dolphin Project

A Review of Historical Cetacean Sightings Data and Preliminary Project Findings

Hannah Newnham
Coastal Explorer Intern
Adonis Blue Environmental Consultants

Kent Wildlife Trust

Adonis Blue ENVIRONMENTAL CONSULTANTS

Kent Dolphin PROJECT.

Sussex Dolphin PROJECT.

sea watch FOUNDATION

Acknowledgements

First and foremost, I would like to give a huge, heart-felt thank you to my fantastic project supervisor, Max Renton (Coastal and Marine Ecologist at ABEC). Your passion for the Kent Dolphin Project, insight and support throughout has been both inspiring and incredibly helpful in guiding me during my work on creating this report. The Kent Dolphin Project is a fantastic initiative and it has been an amazing experience play a part in its early stages!

A special thank you to Thea Taylor (Sussex Dolphin Project), whom which the establishment of Kent Dolphin Project and development of this report would not have been possible without. Thank you for leading our first landwatch sessions, sharing your resources and breadth of knowledge. Your dedication to the projects cause is hugely inspiring, and Kent Dolphin Project is lucky to have you as part of the team.

I am extremely grateful to external organisations who have helped in the development of this report through kindly providing access to relevant sightings data - Sea Watch Foundation and Kent and Essex IFCA. Your contributions have been invaluable to the development of the data within this review. Kent Dolphin Project looks forward to collaborating further in the future together.

Lastly, thank you to everyone across teams at ABEC and at The Crown Estate for your daily support and for welcoming me so openly as a member within the teams.

Executive Summary

This report reviews the findings from a historical collation of cetacean sightings in and around Kent's coastal waters. Cetaceans - dolphins, whales, and porpoises - along with other marine mammals such as seals, play vital roles in maintaining healthy marine ecosystems through processes like nutrient cycling and food web regulation. Despite their ecological importance, many cetacean populations are in decline due to pressures including bycatch, vessel strikes, and anthropogenic noise. Kent specifically, encompassing the Greater Thames Estuary, sits within a busy seascape of anthropogenic marine activity such as vessel traffic, aggregate dredging and marine development which may pose threats to local cetacean populations. As such, it is important to focus research efforts on cetaceans to better understand potential effects of anthropogenic activity in today's seascape. To date, cetacean research has been limited, particularly along the Kent coastline, outlining a gap in research which Kent Dolphin Project aims to close.

Citizen science has emerged as an effective approach to monitor cetacean presence, behaviour, and distribution - developing the much needed research for this group of marine organisms. Across the UK, volunteers have contributed valuable data through land-based monitoring. Inspired by Sussex Dolphin Project, the Kent Dolphin Project was established to improve our understanding of cetacean abundance and health in Kent's waters, using a collaborative model of citizen science through hosting landwatch monitoring sessions, recording of opportunistic sightings and raising awareness of cetacean conservation importance. This report forms part of Kent Dolphin Project's work, mapping cetacean sightings data from a range of available sources to provide a historical baseline of understanding, informing current knowledge of species occurrence and distribution in Kent.

Data was collated from the Sea Watch Foundation, the National Biodiversity Network Atlas, the National History Museum's Historical Strandings database and Joint Cetacean Data Programme. The database spanned 120 years, during which 18 cetacean species have been recorded within the study area. The harbour porpoise was the most commonly recorded species and Dungeness was highlighted as a hotspot for species presence. These findings highlight a strong presence of historical cetacean presence in Kent, however highlights the need for further research into lesser documented species such as the white-beaked dolphin.

Preliminary results from Kent Dolphin Projects own data collection efforts through opportunistic sightings and organised landwatch sessions outline the scope for future project data collection. Three landwatch training sessions have been held since June, with over 30 volunteers trained. Ten opportunistic sightings have been recorded, showcasing a range of species including humpback whale, bottlenose dolphin and harbour porpoise.

Key Recommendations

Based on findings from this review and initial project development, the following recommendations are proposed:

1. **Sustain Volunteer Engagement**: Continue the successful volunteer-led model, enhancing the experience through improved communication, regular landwatch sessions and strategies to increase long-term participation and support. Further, to onboard new volunteers, increasing data collection capacity and project engagement.
2. **Develop Educational Outreach Material**: Deliver educational outreach materials in collaboration with relevant stakeholders covering topics such as cetacean biology, behaviour and themes surrounding the wider marine environment to increase the awareness and knowledge of cetaceans within the wider Kent community.
3. **Strengthen Research**: Utilise findings from this review to explore wider environmental dynamics such as seabed bathymetry and wave base overlays to better understand cetacean presence. Begin to explore cetacean behaviour through data collection as the project matures.

Continued data collection on local cetaceans through landwatch sessions and opportunistic sightings, along with increasing project capacity by onboarding new volunteers and distributing educational outreach will ensure the success of Kent Dolphin Project and its aim to better understand and protect cetaceans within Kent.

Table of Contents

1. Introduction

1.1 Introduction to Kent Dolphin Project

This report presents the findings of a historical data collation of cetacean sightings in Kent, undertaken as part of the Kent Dolphin Project (KDP), a collaborative initiative between the Sussex Dolphin Project (SDP) and Adonis Blue Environmental Consultants (ABEC, part of the Kent Wildlife Trust Group). Kent Dolphin Project is working to better understand and protect whales, dolphins and porpoises (known collectively as cetaceans) within Kent's coastal waters.

Despite Kent's coastal position in the south-west coast of the UK (See Fig. 3, section 2) and history of cetacean sightings, the region has historically lacked a formalised cetacean monitoring network to track the abundance and presence of species. KDP was established to address this gap by utilising citizen science to gather both opportunistic and effort-based cetacean sightings data. This data will contribute to further understanding cetaceans in Kent: identifying individual cetaceans, understanding their behaviour and movements, and locating key habitats such as feeding and breeding sites. Ultimately, the project seeks to build a robust evidence base to inform conservation efforts and secure better protection for Kent's cetaceans.

A crucial component of work for KDP involved reviewing historical records of cetacean sightings to establish a baseline understanding of historical cetacean presence in Kent. This included reviewing the data to identify commonly sighted species, rare occurrences, and any patterns of distribution over time. By integrating historical data with observations from volunteer-led landwatch surveys, KDP aims to better contextualise current trends in cetacean activity and better-inform its conservation strategies.

This report outlines the key findings from the historical data review, alongside initial insights from ongoing landwatch efforts ran by KDP. Together, these findings contribute to a broader understanding of cetacean activity in Kent and help shape the future direction of the KDP.

2.2 Introduction to Sussex Dolphin Project

SDP plays a leading role in cetacean monitoring across Sussex, using sightings data to identify regularly visiting species in the Eastern English Channel, understand population dynamics and behaviour, and pinpoint vital habitats such as feeding and breeding grounds. The project also collaborates with research institutions and NGOs to build a strong evidence base for cetacean protection. Like the KDP, SDP relies heavily on citizen science, collecting both opportunistic and effort-based sightings data to better understand and protect cetaceans within Sussex.

SDP has also made significant strides in public engagement and education. Its outreach programme includes school workshops focused on cetaceans, habitats, and ecosystem balance, aiming to promote early interest in marine conservation. Complementing this, the 'Beach Discovery' sessions offer hands-on learning experiences that integrate core national curriculum subjects with environmental education.

In addition to land-based activities, SDP runs a variety of boat tours that allow participants to learn about Sussex's marine life firsthand. A highlight of these is the Rampion Wind Farm Trip, which uniquely combines marine wildlife education with insights into renewable energy and offshore infrastructure.

SDP has also led an ambitious campaign against supertrawlers in partnership with the World Cetacean Alliance. In 2020, the project identified a troubling link between supertrawler activity and increased dolphin strandings along the Sussex coast. Since then, SDP has worked to raise awareness of the ecological impacts of these large pelagic trawlers and their impact on marine life. This campaign contributed to a DEFRA consultation exploring the long-term integration of Remote Electronic Monitoring (REM) in English waters, with a focus on monitoring large pelagic vessels.

The achievements of SDP serve as a key inspiration for the KDP and showcase the potential scope for its future development. As KDP develops, one of its initial objectives is to investigate whether cetaceans observed in Sussex waters also travel through Kent's coastal areas - exploring patterns of movement, individual identification, and seasonal trends. This cross-county collaboration offers exciting potential for a more connected understanding of cetacean activity in the Eastern English Channel.

1.3 Cetaceans of Kent

Across UK waters, 28 cetacean species have been recorded historically, with 12 species regularly sighted (DEFRA, 2023). However, the abundance, frequency, and distribution of cetaceans, specifically in Kent, remain poorly understood due to the absence of long-term, systematic monitoring.

According to the Sea Watch Foundation (SWF, 2012), four species are most commonly observed in the waters of South-East England. These are:

- **Harbour porpoise**
- **Bottlenose dolphin**
- **Short-beaked common dolphin**
- **Long-finned pilot whale**

The same report (SWF, 2012) identified four key hotspots around Kents coastline for cetacean sightings, including: North Foreland, Sandwich Bay, South Foreland, and Dungeness. These areas are therefore likely to be of particular interest to the project for future monitoring efforts and for hosting landwatch sessions.

In other regions of the UK, cetacean activity is tracked through organised landwatch programmes (see section 2 for details of a landwatch session), such as those in the west coast of Scotland, the Moray Firth on the east coast of Scotland, and Cardigan Bay in Wales. These initiatives, led by organisations including Seawatch Foundation, MarineLIFE, ORCA, and the Whale and Dolphin Conservation Trust, have significantly advanced the understanding of cetacean activity and conservation status in the UK.

KDP seeks to emulate these successful programmes by establishing a formalised sightings network in Kent. Through harnessing citizen science and organising structured landwatch surveys, KDP aims to fill existing data gaps and contribute to a more comprehensive understanding of cetacean presence and behaviour in the region.

UK organisations who conduct citizen science cetacean monitoring sessions.

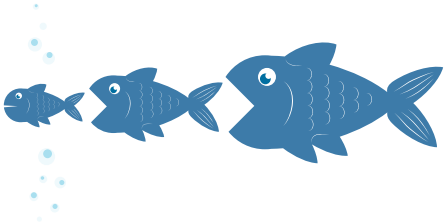
1.4 Ecological Significance of Cetaceans

Cetaceans play a vital role in maintaining the health and balance of marine ecosystems. As apex predators and nutrient transporters, they influence both top-down and bottom-up ecological processes (Kiszka, Woodstock and Heithaus, 2022). Their presence and behaviour offer valuable insights into the condition of the marine environment, making them important indicator species.

Key ecological contributions of cetaceans include:

Nutrient cycling:

Whales bring important nutrients including nitrogen to the ocean surface, promoting phytoplankton growth, which in turn supports several other marine organisms and boosts overall productivity (Roman and McCarthy, 2010).



Food web insights:

Changes in cetacean behaviour, abundance, or distribution can signal shifts in prey populations and other lower trophic levels such as fish. Ecosystem models suggest cetaceans play a role in regulating lower trophic levels (Kiszka, Woodstock and Heithaus, 2022).

Environmental health indicators:

Many cetaceans share coastal habitats and food sources with humans, making them valuable sentinels for detecting environmental health risks, including marine litter impact (Sea Mammal Research Unit, 2016; Fossi, Baini and Simmonds, 2020).

Public engagement and conservation:

Cetaceans are charismatic and widely loved marine animals and help create emotional connections between people and the ocean (Sea Mammal Conservation), making them flagship species for marine conservation.

Given these roles, cetaceans are widely recognised as indicators of marine ecosystem health. Monitoring their populations can help detect broader environmental changes and guide conservation efforts (Hazen et al., 2019).

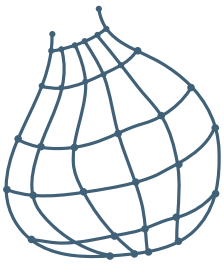
1.5 Threats to Cetaceans

Despite their ecological importance, cetaceans face a range of anthropogenic pressures that threaten their survival and welfare. These threats are often difficult to quantify due to the challenges of monitoring highly mobile, primarily submerged species (DEFRA, 2023).

However, existing evidence highlights several key risks:

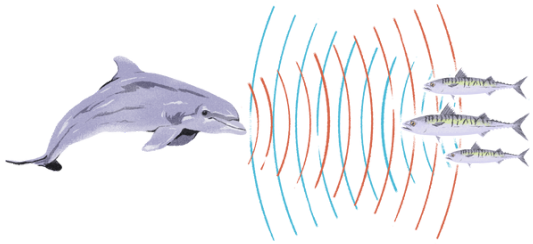
Bycatch/entanglement:

One of the most significant threats to cetaceans is accidental capture in fishing gear. Between 1990 and 2006, bycatch accounted for 61% of recorded cetacean strandings in UK waters (Leeney et al., 2008).



Noise pollution:

As echolocators, cetaceans rely heavily on sound for communication, navigation and foraging. Underwater noise from shipping, offshore construction, drilling, and military sonar can disrupt echolocation, cause habitat displacement and impair social behaviours (Weilgart, 2007; ASCOBANS, 2024).



Vessel strikes:

Collisions with boats and ships pose a growing threat, particularly in areas with high marine traffic. These incidents can result in serious injury or death, and their frequency is expected to rise with increased coastal development (Vighi, 2025).

Pollution:

Chemical contaminants and plastic waste can have both direct and indirect impacts on cetacean health. Exposure to pollutants has been linked to reproductive failure, for instance (Murphy et al., 2010).

1.6 Kent-Specific Threats

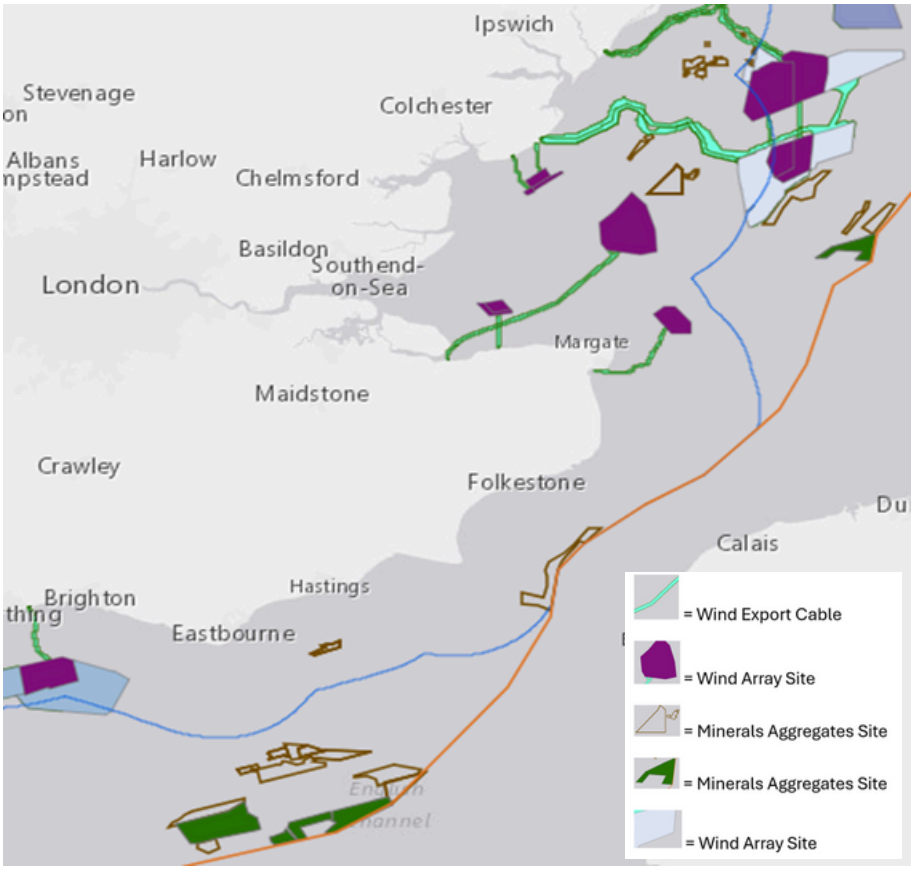


Figure 1. Insight into industrial seabed usage around Kent, including offshore wind infrastructure, aggregate dredging zones and subsea cables. © Contains data provided by The Crown Estate that is protected by copyright and database rights.

The area of seabed currently utilised by industrial operations within Kent's waters (Fig.1) could be used to indicate the level and range of pressures cetaceans may be exposed to in Kent.

As depicted by the map, Kent sits within a busy seascape, populated with offshore wind farm developments (453.91km² operational sites and 554.26km² pre-planned/consented sites), aggregate dredging zones (357.67km² active areas and 214.34km² exploration areas), and wind export cable routes (572.88km²).

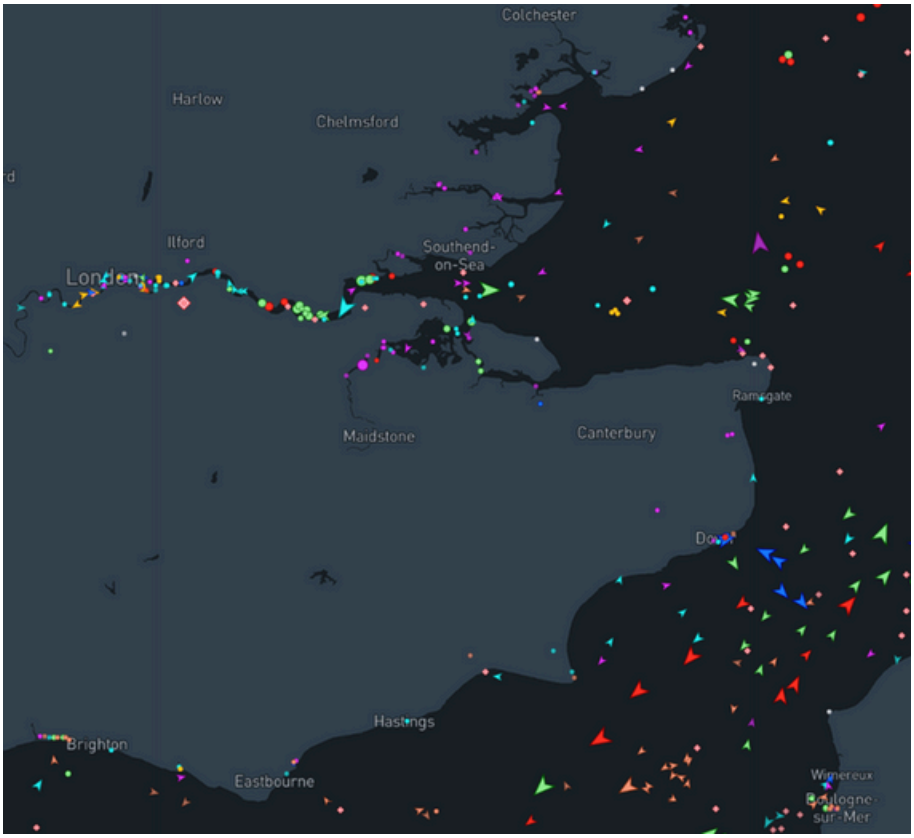


Figure 2. Marine Vessel Traffic in Kent, taken from Marine Vessel Traffic Open Data Portal at 13:37 15/10/25. © Base map data sourced from OpenStreetMap.

The Thames Estuary and English Channel are also hotspot areas for vessel traffic and shipping routes (Fig.2), with the Thames being one of the UK's busiest estuaries for passenger and light cargo traffic. Kent's waters therefore have the potential to pose significant threats to cetaceans, underlining the importance of implementing an ongoing monitoring programme to understand how they cope with and respond to anthropogenic impact in Kent.

2. Methodology

KDP has focused its efforts across three core areas to establish a baseline understanding of cetacean presence and support future marine conservation planning:

- Landwatch sessions and data collection.
- Historical data compilation and analysis.
- Volunteer engagement and public outreach.

1. Landwatch Sessions

Landwatch sessions are structured, effort-based surveys conducted by trained volunteers following training by project leads affiliated with SDP or KDP. These sessions follow standardised protocols to ensure data quality and consistency. During landwatch training, volunteers learn the principles of land-based cetacean surveying, including species identification, recording environmental conditions and understanding survey effort. Once trained, volunteers are equipped to conduct independent landwatch sessions and contribute data to KDP.

A landwatch session involves a volunteer positioning themselves at a designated coastal vantage point and performing systematic horizon scans of the sea. Observations are recorded at 15-minute intervals for a minimum of one hour, including:

- Environmental variables: sea state, wind direction, visibility, and other conditions that influence detectability.
- Cetacean sightings: species, group size, behavior, location and direction of travel.
- Vessel activity: type and number of boats, which can impact cetacean presence.

Landwatch sessions are effort-based, meaning they record both presence and absence of cetaceans under known environmental conditions. This provides standardised, scientifically robust data that can be compared across sites and time, unlike opportunistic sightings which only capture presence and often lack context.

2. Historical data compilation and analysis

To establish a historical baseline of cetacean presence, a comprehensive review of existing datasets was undertaken. The study area was defined as the Kent coastline, spanning from the Thames Estuary to Dungeness (51.6°N, 0°E to 50.7°N, 2°E).

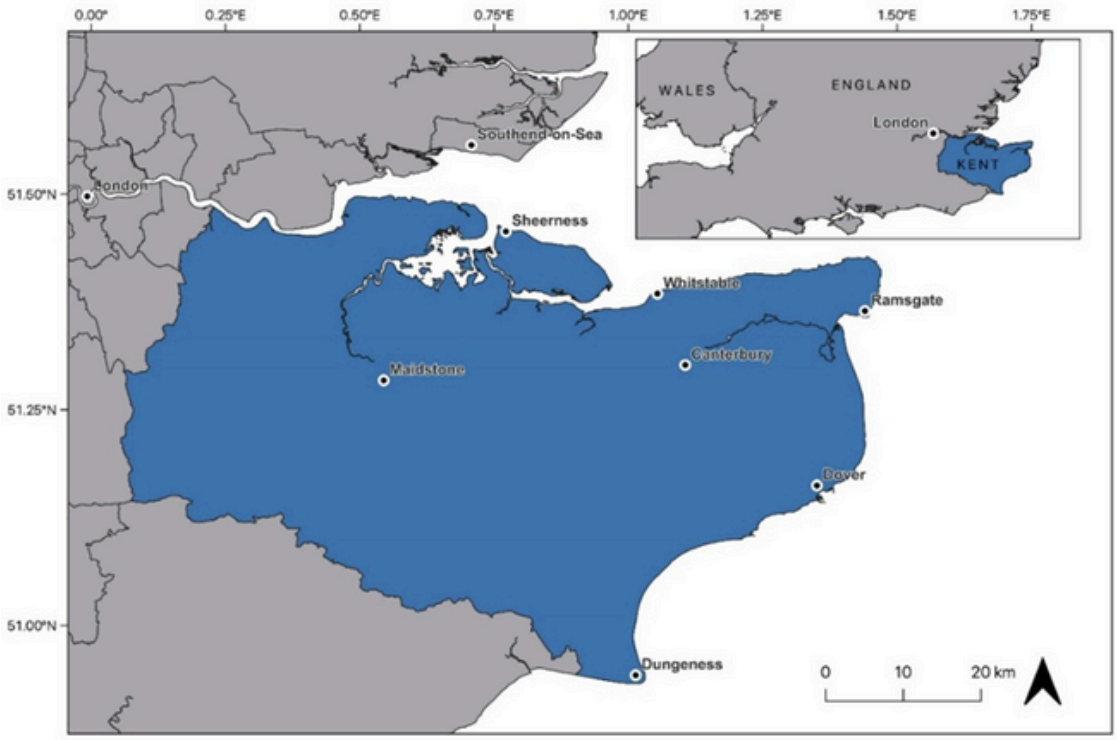


Figure 3. Location of Kent highlighting the coastline of study area**.**

The following databases were consulted:

- The Crown Estates Marine Data Exchange (MDE)
- Kent and Essex Inshore Fisheries Conservation Authority (KEIFCA)
- National Biodiversity Network (NBN) Atlas
- Natural History Museums Historical Strandings
- Joint Cetacean Data Programme (JCDP)
- Sea Watch Foundation Sightings

Following data cleaning and validation, a consolidated dataset was prepared for analysis in ArcGIS. Additionally, collaborative relationships have been established with key organisations, including a formal data-sharing agreement with the SeaWatch Foundation.

3. Volunteer Engagement and Public Outreach

Volunteer involvement is central to KDP's mission to raise public awareness of cetaceans in Kent. In addition to structured landwatch activities, the project promotes opportunistic sightings - casual observations reported by members of the public.

To support this initiative, KDP has engaged with several local community groups to encourage public participation and raise awareness of cetacean presence. These outreach efforts aim to build a sense of stewardship and expand the network of contributors to cetacean monitoring for KDP.

3. Results & Discussion

3.1 Results

Table 1. Summary of Total Recordings, Individual Abundance Counts, and Date of Last Recorded Sighting for all species across collated databases.

Common Name	Recordings	Individual Abundance	Date Last Recorded
Common seal	600	7421	15/08/2025
Harbour porpoise	1048	3203	15/08/2025
Bottlenose dolphin	315	1204	26/10/2024
Grey seal	260	349	08/08/2025
Long-finned pilot whale	36	264	11/08/2015
White-beaked dolphin	27	125	22/03/2025
Common dolphin	23	110	14/06/2025
Humpback whale	32	33	12/03/2025
Killer whale	12	25	14/06/2021
Risso's dolphin	3	13	24/05/1991
Minke whale	11	11	03/12/2024
Fin whale	3	3	03/01/2025
Pilot whale	1	1	19/11/2014
Sperm whale	1	1	31/01/2020
White-sided dolphin	1	1	10/09/1941
Atlantic spotted dolphin	1	1	04/03/2025
Beluga whale	1	1	13/10/2018
Northern bottlenose whale	1	1	20/01/2006
Sei whale	1	1	07/01/1990
Striped dolphin	1	1	11/09/1999

Across all combined data sources, a total of 2,378 recordings were compiled, representing 12,769 individual marine mammals. The dataset spans a period of 120 years, from the earliest record on 06 July 1905 to the most recent on 15 August 2025.

The most abundant species (Table 1) was the common seal (*Phoca vitulina*), accounting for 7,421 individuals, followed by the harbour porpoise (*Phocoena phocoena*) with 3,203 individuals, and bottlenose dolphin (*Tursiops truncatus*) with 1,204 individuals. Recordings data shows a different trend to Individual Abundance, with harbour porpoise the most commonly recorded species (1048 recordings) followed by the common seal (600 recordings). This information provides useful insight into the group size of different species - for example, the common seal is often sighted hauled out in large groups, whereas the harbour porpoise is commonly sighted alone. This explains the difference in these figures. Notably, seal species were not always differentiated; therefore generic "seal" records were attributed to common seal, which may result in an underrepresentation of grey seal (*Halichoerus grypus*) counts (349 individuals).

Two species of interest (due to their lack of historical research in Kent) for KDP - white-beaked dolphin (*Lagenorhynchus albirostris*) and common dolphin (*Delphinus delphis*) - were recorded in notably lower numbers (125 and 110 individuals, respectively). This underscores the importance of introducing a targeting monitoirng porgramme to better understand such species which have limited data. Additional species included rarer occurrences such as sperm whale and atlantic spotted dolphin, sighted only once each (Table 1).

3.2 Common Cetacean Sightings

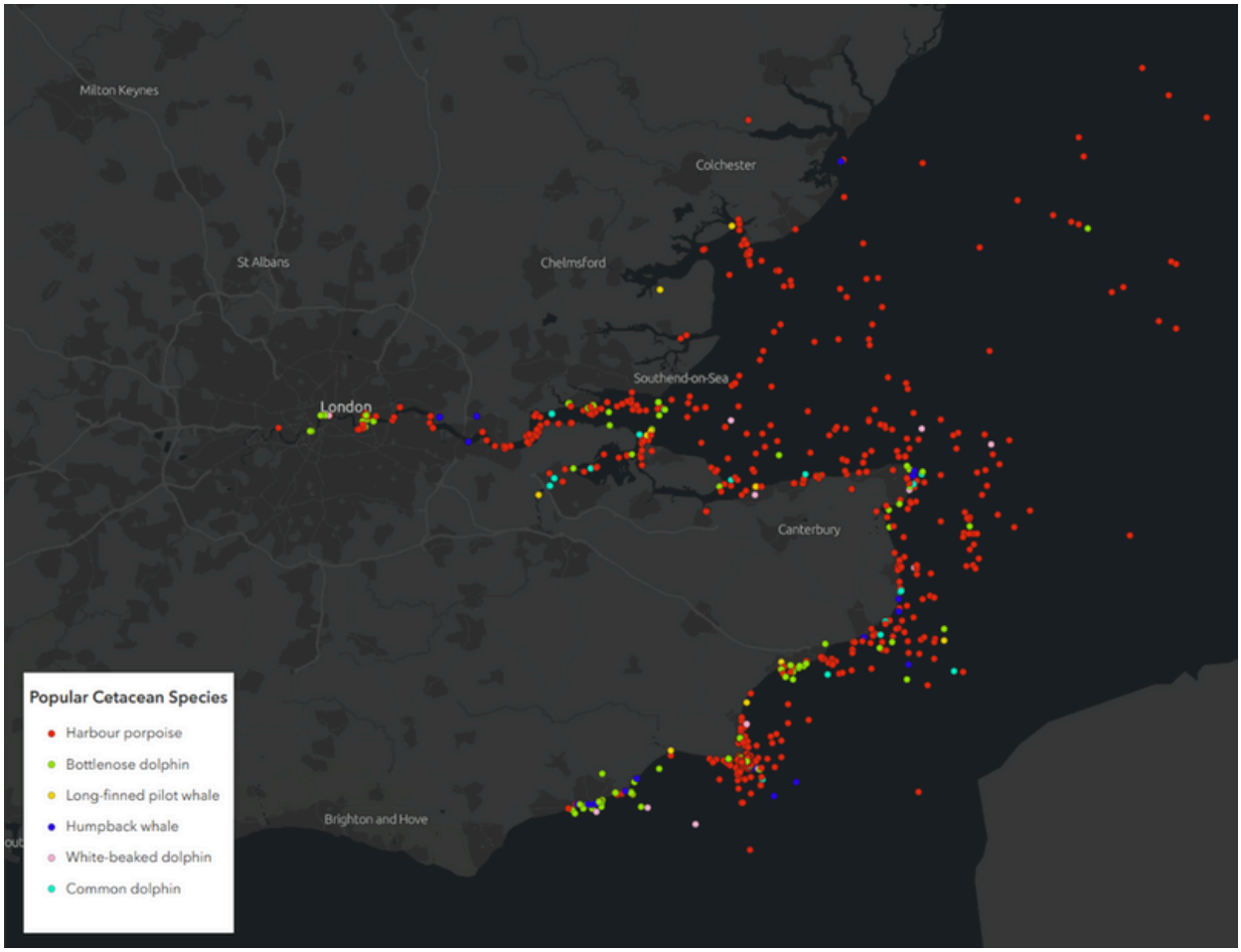


Figure 4. Individual recordings of most frequently reported (> 100 individuals) cetacean species within the dataset. Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Figure 4 illustrates records (plotted based on coordinates) of the most frequently observed cetacean species within the dataset. Species include harbour porpoise, bottlenose dolphin, long-finned pilot whale, humpback whale, white-beaked dolphin and common dolphin.
Harbour porpoise is by far the most frequently reported species, representing 44% of all sightings. The distribution shown in this plot highlights how cetaceans have historically utilised the entire Kent coastline, extending into the Thames Estuary. This widespread presence underscores the ecological importance of both coastal and estuarine habitats for these species.

Figure 5. Individual recordings of less common cetacean species within the dataset. Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Figure 5 presents records of less frequently observed cetacean species within the dataset. Species included atlantic spotted dolphin, beluga whale, northern bottlenose whale, sei whale, sperm whale, striped dolphin, white-sided dolphin and fin whale. Most of these species were recorded only once historically, indicating their rarity in Kent waters.

This distribution demonstrates that, while uncommon, a diverse range of cetacean species has historically utilised Kent's marine environment, including estuarine areas. Such records highlight the ecological significance of these waters as occasional habitats for rare species.

3.3 All Cetacean Sightings

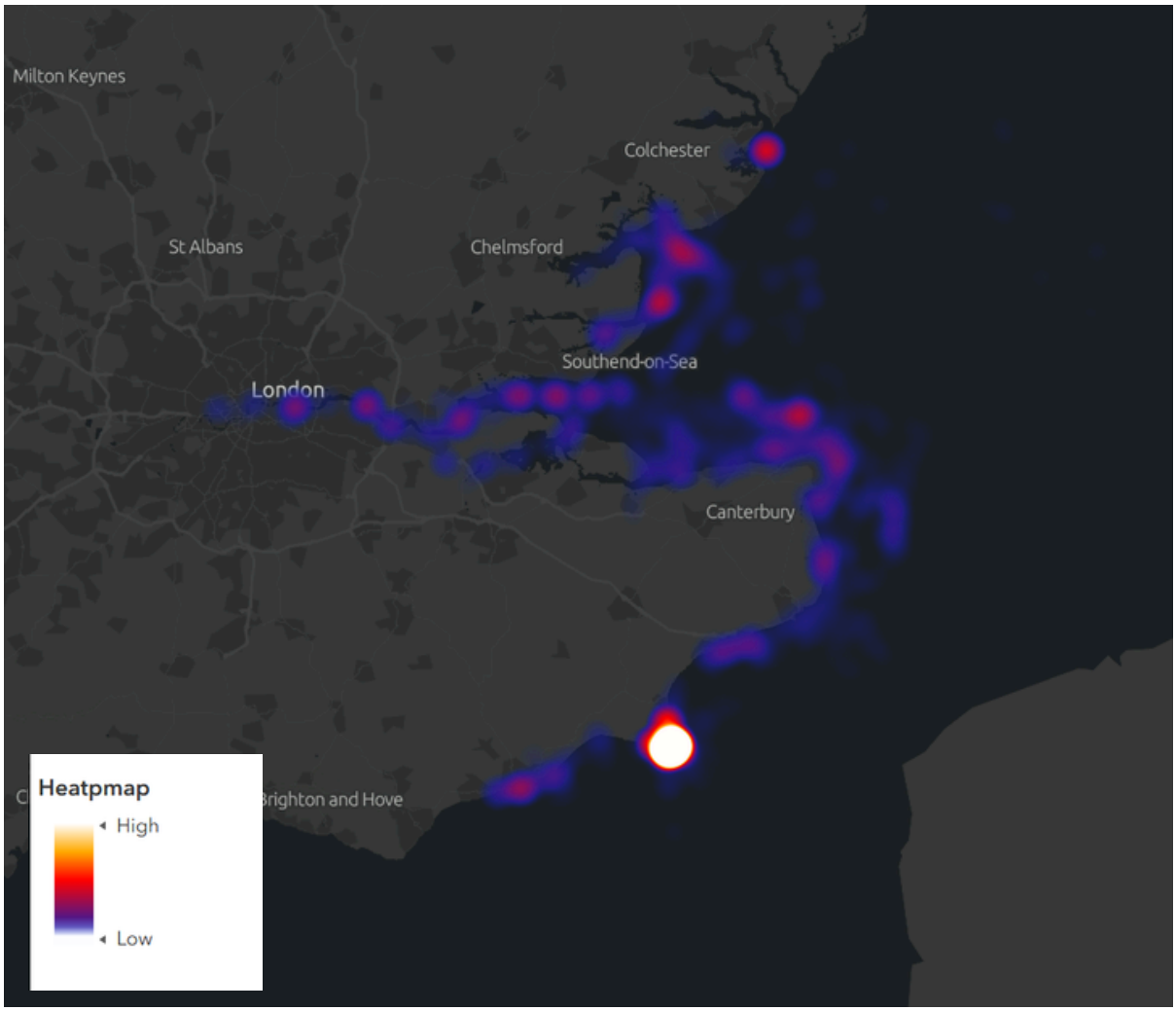


Figure 6. Heatmap of all cetacean sightings within the dataset. Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Spatial analysis of cetacean sightings revealed several key hotspot areas along and adjacent to the Kent coastline. Within Kent, the Northeast coastline - spanning Whitstable to Ramsgate, including Herne Bay and the Thanet Coast - emerged as a significant hotspot for cetacean sightings. Another area of popularity also appeared in Folkestone, and Dungeness was the largest hotspot area for cetacean presence.

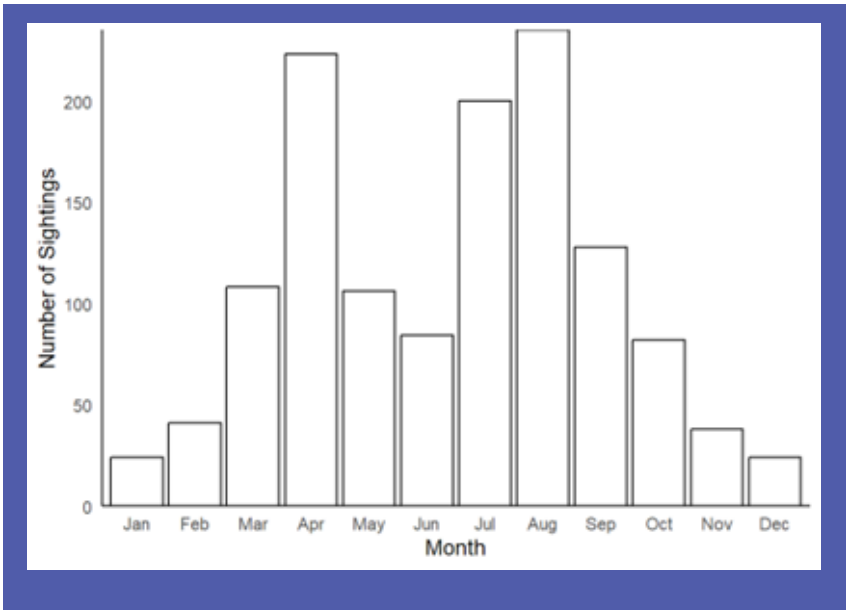
In contrast, absence zones - areas with notably fewer or no recorded sightings - include the stretch from Sandwich and Pegwell Bay to Folkestone along the Southeast Kent coast. The Medway Estuary also appears to be a low-sighting area. Interestingly, anecdotal reports by the Sea Watch Foundation and conversations with volunteers suggest cetacean activity in the Medway, indicating a possible gap in effort-based data collection and highlighting the need for targeted survey work in this area.

Additional mapping identified high-density areas outside Kent, notably south of Colchester (Colne Estuary to Thames Estuary boundary). This region falls outside the Kent administrative boundary, despite this it was included in the mapping due to its ecological connectivity with North Kent waters and the high volume of recorded sightings.

3.1 Harbour Porpoise

The harbour porpoise (*Phocoena phocoena*) (Linnaeus, 1758), is a small cetacean with a blunt, short beaked head. It is the smallest species of cetacean found in European waters, measuring around 1.3-1.5m in length and weighing 50-60kg (SWF, 2012). It shows countershading, generally dark grey on the back and white on the belly (Russel, 2006). The animal rarely leaves the water entirely, and therefore often only is the dorsal fin seen briefly above the surface, which has a small triangular shape (SWF, 2012).

The harbour porpoise has been recorded around all coasts of Britain and Ireland and is a common visitor to the South-East of England (SWF, 2012). This species is found in cool, temperate and subpolar waters and given its name, is usually found in near shore waters with occasional deep water occurrences. Unlike many other smaller cetacean species, harbour porpoise are often found alone, or generally in small groups consisting of less than 8 individuals. They occasionally form groups of 10-20 animals (SWF, 2012). The harbour porpoise is thought to have undergone substantial declines in numbers over the last fifty years, becoming particularly rare in the southernmost North Sea and Channel (SWF, 2012).



Conservation Status

- **Protected in the UK under the Wildlife and Countryside Act, 1981**
- **Listed under CITES Appendix II**
- **Classified as a Priority Species under the UK Post-2010 Biodiversity Framework.**
- **Protected under the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1996.**

Figure 7. seasonal sighting pattern for harbour porpoise.

Temporal and Spatial Distribution - Harbour Porpoise

Harbour porpoise was the most frequently recorded species in the dataset (1,048 records), occurring across all areas of Kent (Fig. 8), with dense clusters around Dungeness and additional concentrations in the Thames Estuary, extending upriver toward central London. Sightings are also concentrated around coastal waters, reflecting the species preference for shallow, sheltered waters and its broad distribution across UK coastal areas (Buttifant, 2021). This high occurrence of sightings aligns with the status of harbour porpoise as the most common cetacean in northern Europe (SWF, 2012), supported by population estimates of approximately 280,000 individuals in the North Sea during July 1994 (SWF, 2012).

SWF has reported suspected declines in harbour porpoise populations within the English Channel and southern North Sea. These areas are characterised as busy seascapes, with various anthropogenic pressures including fishing, industrial development and high vessel traffic. These declines may therefore be driven by a range of activities. For instance, unsustainable fishing practices are associated with high bycatch mortality for harbour porpoise - with OSPAR (2017) estimating a mortality of 4,000 harbour porpoise per year within their study areas as a result of bycatch. Additionally, the south-west experiences the highest by-catch rates for harbour porpoise within the UK (Buttifant, 2021). Further, harbour porpoise are vulnerable to vessel traffic, with a recent study within the North Sea documenting the short-term displacement effects of up to 9km through vessel activity disturbance (Pigeault *et al*., 2024). Despite strong evidence of harbour porpoise within the dataset, it therefore still remains important to continue targeted data collection to explore any trends in abundance within Kent, given its position within an area of heavy anthropogenic activity.

Seasonal mapping reveals a clear temporal pattern (Fig. 7), with sighting peaks in April, July, and August, consistent with expected spring and summer activity (SWF). It is important to note that the overall increase in sightings during warmer months may not solely reflect ecological patterns (See section X). Further data collection will be required to increase confidence in the seasonal occurrence of harbour porpoise.

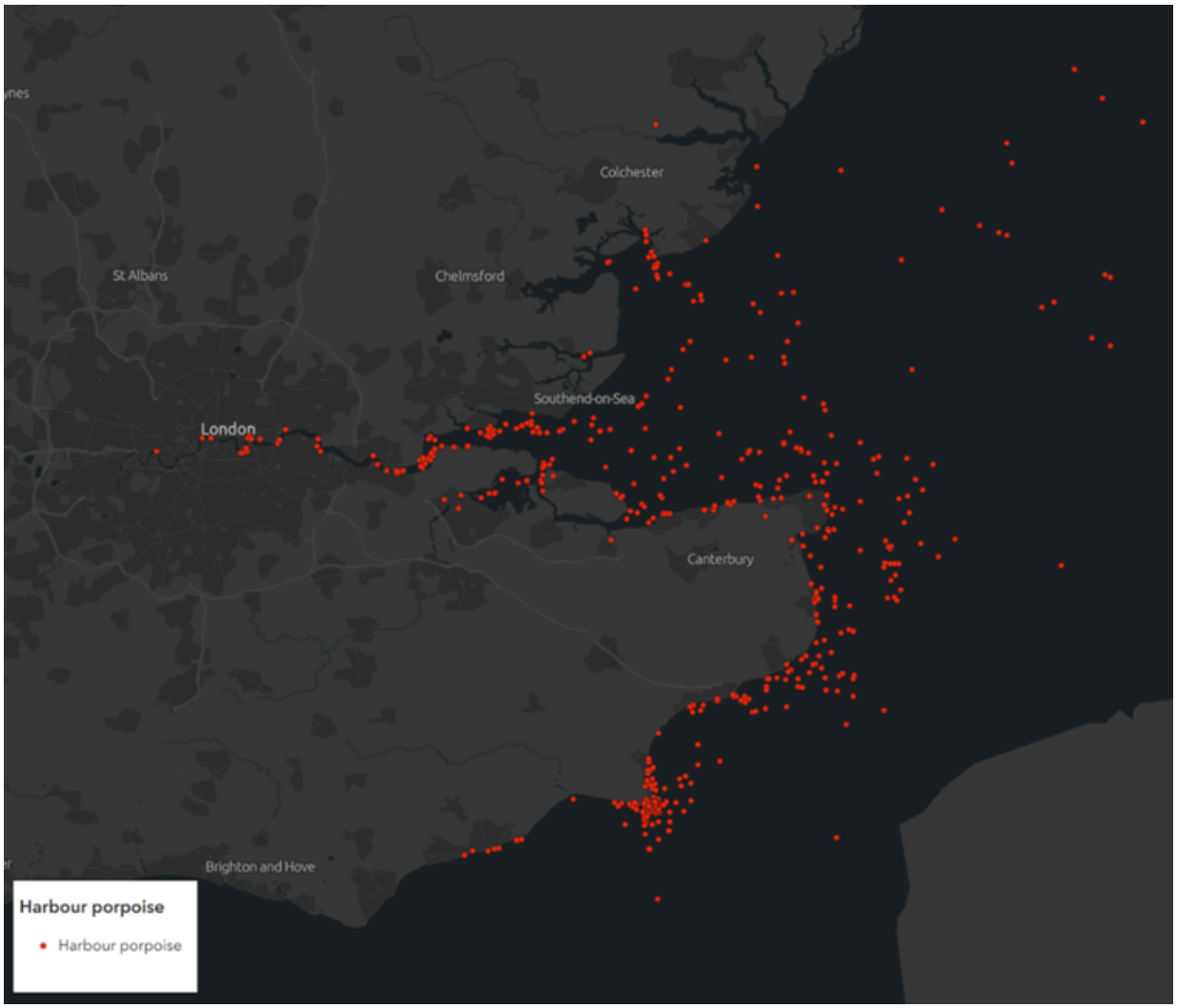


Figure 8. locations for harbour porpoise sightings (1,048). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

3.3 Bottlenose dolphin

The bottlenose dolphin (Tursiops truncatus) is a large dolphin species, reaching up to 4m in length, with the average length of about 2.5-2.7m (JNCC). It is most commonly seen inshore, with most sightings within 10km of land. These animals are typically seen individually, or in groups of up to 25 individuals.

Bottlenose dolphins occur in almost all tropical and temperate regions, and can be found in both coastal and offshore waters. In the UK, the total population of inshore bottlenose dolphins is thought to be around 300 individuals (HWDT). There are two key areas in the UK with known semi-resident groups of bottlenose dolphins - Cardigan Bay and the Moray Firth. Historically, individuals were more widespread especially in the southern North Sea and English Channel. Resident coastal populations of bottlenose dolphins are most at risk due to overlap with human activity including fishing, pollution and vessel traffic (Corr *et al*., 2023).

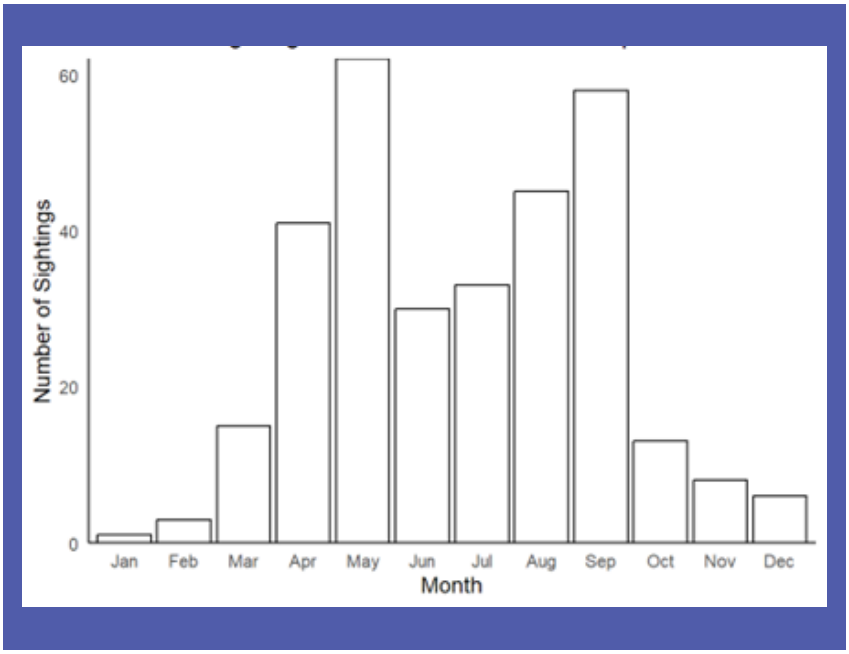


Figure 9. seasonal sighting patterns for bottlenose dolphin

Conservation Status

- **Protected in the UK under the Wildlife and Countryside Act, 1981**
- **Listed under CITES Appendix II and classified as a Priority Species under the UK Post-2010 Biodiversity Framework.**
- **Protected under the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995**

Temporal and Spatial Distribution - Bottlenose Dolphin

The English Channel is among the most heavily impacted marine ecosystems globally, and increasing anthropogenic pressures pose a significant threat to the long-term viability of inshore bottlenose dolphin populations (Corr *et al*., 2023). Recent efforts to better understand the status of bottlenose dolphins in the UK estimated the only remaining group of this species within the south coast consists of 48 individuals (Corr *et al*., 2023). The understanding of this group of individuals within Kent's waters remains misunderstood, with this research extending from North Cornwall to Sussex, and ending at the Kent county border.

Within our dataset, bottlenose dolphin sightings were relatively evenly distributed along Kent's coastline, with notable hotspots near Dungeness and Folkestone (Fig. 10). Several records extend deep into the River Thames, reaching as far as central London, which may indicate exploratory movements or opportunistic foraging. Overall, sightings were considerably lower than those of other species, such as the harbour porpoise, which is expected given the small estimated population of fewer than 300 individuals in UK inshore waters (HWDT).

A cluster of sightings emerged along the Sussex border (Fig. 10), which aligns with frequent observations reported by SDP. SDP have suggested a potential range-shift of bottlenose dolphins from Sussex into Kent (pers.comm), which is reflected within the dataset and may indicate connectivity between regional populations, particularly the small group identified by Corr *et al*. (2023). This highlights the need to increase monitoring effort in Kent to confirm potential connectivity and in the long term, begin identifying individual dolphins that may belong to the same pod - similar to the work by Corr *et al*. (2018), who used Bayesian multi-site mark–recapture analysis to estimate population abundance.

Seasonal analysis indicates that bottlenose dolphins are typically observed during spring and summer along the Dorset coast, extending eastward to Sussex and Kent (SWF). This pattern was reflected in monthly sighting frequency analysis (Fig. 9), which showed peaks in May and September. However, opportunistic sightings (see section 3.2.1) recorded by KDP suggest a different trend: all four bottlenose dolphin sightings documented since the project's launch occurred in October across 2024 and 2025. While the sample size is limited, this may indicate unique seasonal behaviour in Kent waters or highlight gaps in effort-based monitoring. Four opportunistic sightings of bottlenose dolphins within Kent are particularly noteworthy, given the species reported decline in the southern North Sea and English Channel (JNCC, 2019).

Figure 10. sighting locations for bottlenose dolphin sightings (315). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

4.4 Common dolphin

The common dolphin (also referred to as short-beaked common dolphins) (*Delphinius delphis*) is one of the smallest true dolphins, measuring around 2.1-2.4m in length and weighing 75-85kg (SWF, 2012). A slender dolphin, they are dark grey above and whiter below. Common dolphins have a distinctive hourglass pattern on their sides, including an obvious yellow-cream area starting behind the long, narrow beak. The dorsal fin is tall and triangular and curves slightly backwards. This species is a common bow-rider and they are very active and agile individuals. This species is rare in the southern North Sea and eastern portion of the English Channel, and is most common in the western approaches to the channel, along with the southern Irish sea. In the UK, this species is often found in groups of less than 30 individuals, with animals commonly being seen solitary or in pairs.

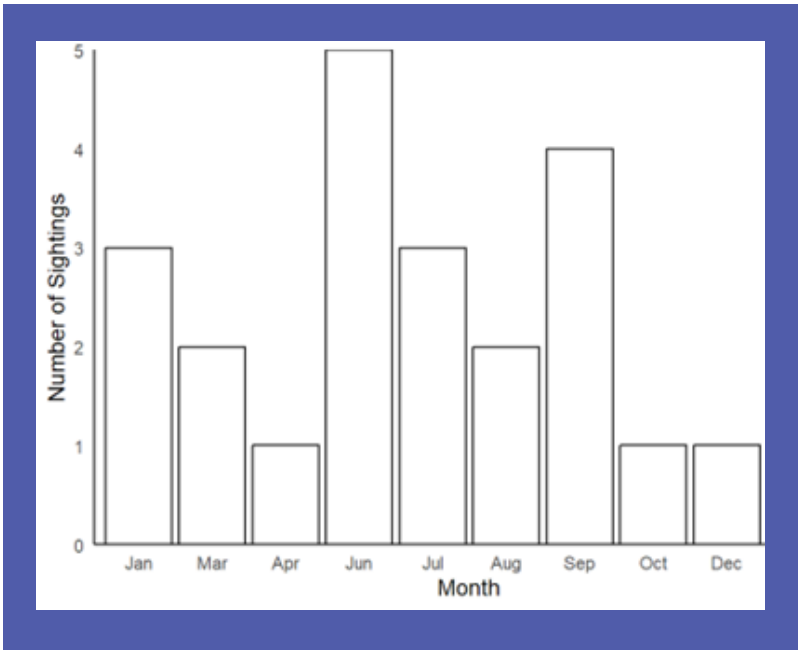


Figure 11. seasonal sighting pattern for common dolphin

Conservation Status

- **Conservation status: Protected in the UK under the Wildlife and Countryside Act, 1981**
- **Listed under CITES Appendix II and classified as a Priority Species under the UK Post-2010 Biodiversity Framework.**
- **Protected under the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1997.**

Temporal and Spatial Distribution - Common Dolphin

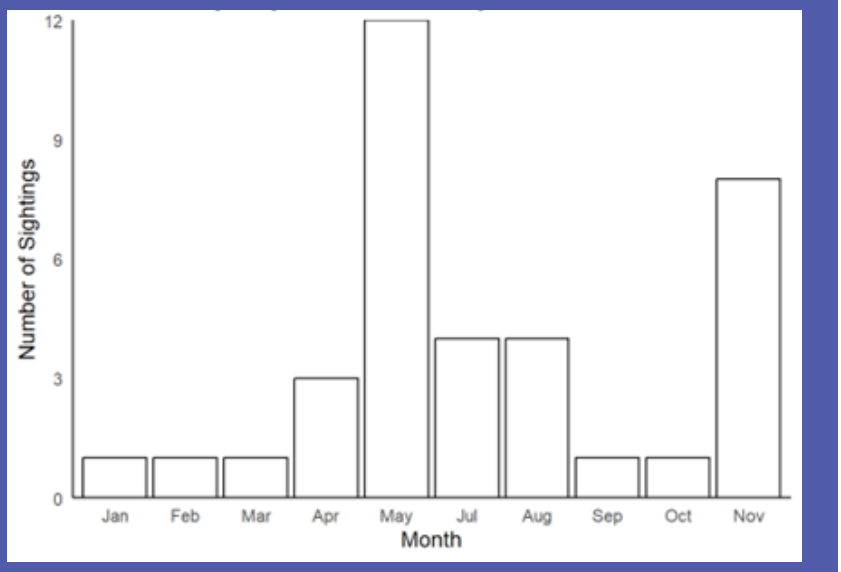
The common dolphin is generally rare in the southern North Sea and eastern English Channel (Evans, 2012). Within our dataset, sightings were comparatively infrequent but widely distributed across Kent - from Dungeness to the Thames Estuary - with several records even within the Medway Estuary. This species is primarily considered an offshore visitor in the eastern English Channel (Evans, 2012), which likely explains its low occurrence in coastal waters within the dataset. Historical surveys support this pattern: the SCANS survey (Hammond *et al.*, 2013) reported no common dolphins in the English Channel, whereas Stockin, Vella, and Evans (2005) documented substantial numbers in the western Channel, alongside evidence of seasonal inshore movements during winter.

Our seasonal findings broadly align with SWF expectations, showing increased records from June to September, overlapping with the species' typical July–October coastal presence. These observations suggest that while common dolphins remain relatively rare in Kent waters, their occurrence may reflect opportunistic foraging or seasonal shifts in distribution.

Figure 12. sighting locations for common dolphin sightings (23). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

4.5 Long-finned Pilot Whale

The Long-finned pilot whale (*Globicephala melas*) is a medium sized whale (measuring up to 6.5m) with an elongated body, bulbous head and thick curved dorsal fin. Adults are almost completely black in colour, with new-borns lighter in colour and sometimes spotted with grey (Cetacean research and rescue unit, CRRU). These animals inhabit cold waters and are usually found in deep, offshore waters with occasional visits to coastal waters in parts of the North Atlantic. This species is extremely social, and are found in groups ranging from less than ten to more than 1000 individuals (CRRU). Around the world two distinct populations are recognised, one in the southern hemisphere and the other in the North Atlantic (ORCA).



Conservation Status

- **Protected in the UK under the Wildlife and Countryside Act, 1981.**
- **Listed under CITES Appendix II.**
- **Listed under the Convention on Migratory Species Appendix II.**
- **Listed as Least Concern under the IUCN Red List.**

Figure 13. seasonal sighting patterns for long-finned pilot whale

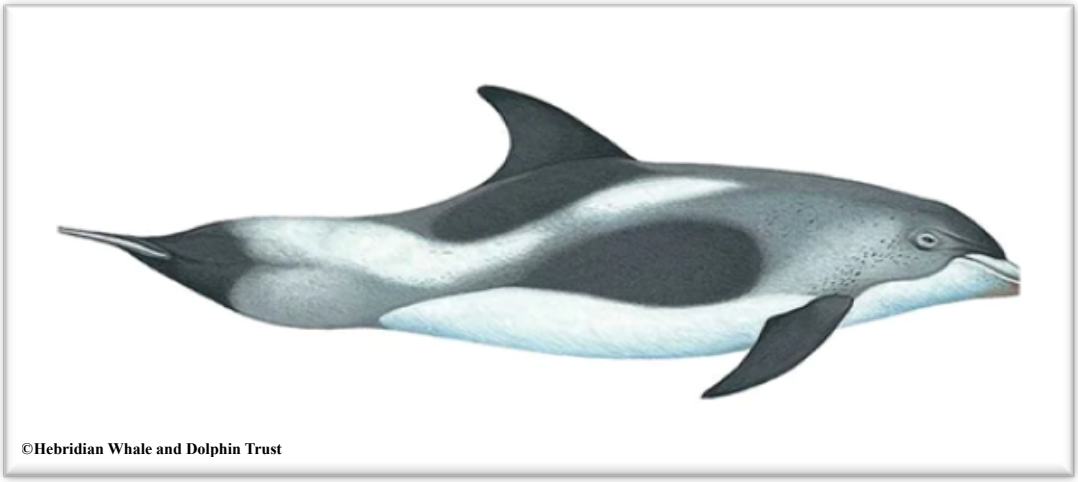
Temporal and Spatial Distribution - Long-finned Pilot Whale

Long-finned pilot whale sightings were relatively frequent in the dataset, showing a distinct concentration in southern Kent, particularly off Dungeness. Although this species is widely distributed across UK waters, it is generally considered a casual visitor to the eastern English Channel (Evans, 2012).

Pilot whales are recorded year-round in the Channel, but seasonal peaks typically occur between March–May and August–December (Evans, 2012). Temporal trends in our dataset align with this pattern, with notable sighting peaks in May and November. These observations suggest that Kent's coastal waters may serve as an occasional transit or foraging area for this deep-water species during seasonal movements, which have been correlated with the abundance of prey including mackerel fisheries in south-west England (Evans, 1980).

Figure 14. sighting locations for long-finned pilot whale sightings (36). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

3.6 White-beaked Dolphin



The white-beaked dolphin (*Lagenorhynchus albirostris*) is a large and very robust dolphin measuring 2.5-3m. This species has a short, thick, white beak. They have a dark grey back, tail and pectoral fins, with greyish-white flashes along the flanks and a pale grey patch behind the dorsal fin (known as the saddle-patch). The dark grey dorsal fin is tall and falcate (sickle shaped) and the beak is short and often entirely white (HWDT). White-beaked dolphins are fast and powerful swimmers, and often bow-ride in front of fast-moving vessels. This species favours the cool temperate waters of the North Atlantic and are rarely found south of the English Channel. A small population is found year-round in Lyme Bay, Devon/Dorset and dolphins are spotted close to shore in Northumberland in the summer months. In the UK, most sightings are groups of less than ten animals, with occasional aggregations of up to 100 animals can be seen in late summer (SWF, 2012).

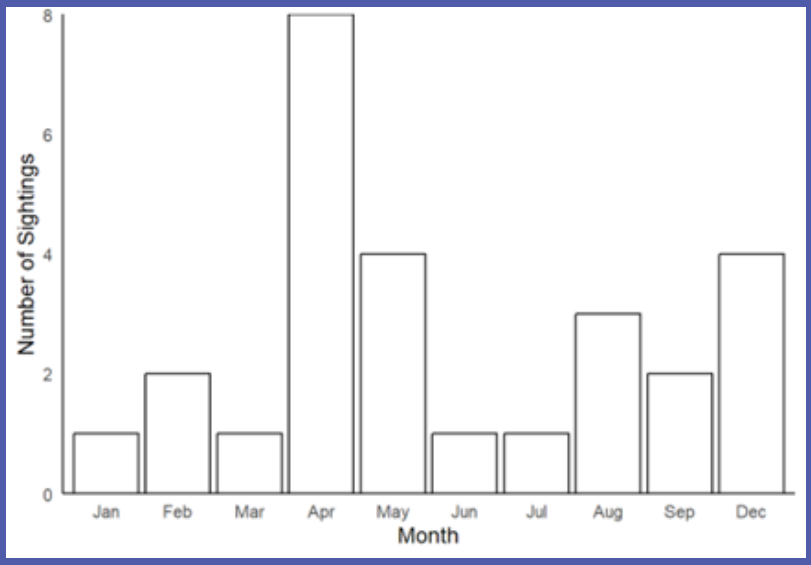


Figure 15. seasonal sighting patterns for white-beaked dolphin

Conservation Status

- Considered to be of Least Concern on the IUCN Red List of species
- Protected in the EU under Annex IV of the EU Habitats Directive
- Listed under Annex II of CITES. In the UK they are protected under the Wildlife and Countryside Act 1981
- Listed under the Conservation of Habitats and Species Regulations 2010
- Priority Species under the UK Post-2010 Biodiversity Framework.

Temporal and Spatial Distribution - White-beaked Dolphin

White-beaked dolphin sightings were recorded across much of Kent's coastline, with a notable concentration around Dungeness. This species is primarily distributed within the central and northern North Sea, with occasional southward extensions into southwest England and sporadic observations in the southern North Sea (Evans, 2012). Its presence in Kent therefore represents the southern edge of its typical range.

Temporal analysis of our dataset indicates peak sightings in April and May, with smaller increases in August and December. These patterns closely align with findings by Evans (1992), who reported seasonal abundance peaks in March–April and again between August and November. This consistency suggests that Kent's waters may serve as a transitional zone for white-beaked dolphins during seasonal movements.

Figure 16. sighting locations for white-beaked dolphins (27). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Image taken by a local angler (Louise Jane Charters) in Dover of a white-beaked dolphin!

3.7 Other Cetacean Species

Figure 17. sighting locations for humpback whale (32).

Figure 18. sighting locations for minke whale (11)

Figure 19. sighting locations for killer whale (12)

Humpback Whale

Humpback whales have primarily been sighted along the southern Kent coast within our data, particularly off Dungeness, with clusters of records near Dover, and Hastings in Sussex. Sightings of humpback whales in UK waters have increased since the 1980s, following recovery from commercial whaling (SWF, 2012). While there is limited mention of this species in the southern North Sea and eastern English Channel within literature, our data indicates that humpbacks do occasionally visit Kent waters, with the most recent sighting in March 2025. Continued monitoring by the KDP may be crucial in determining whether the eastern English Channel serves as an important area for humpback whales and could even reveal its role as a potential migratory corridor.

Minke Whale

In the UK, minke whales are regular visitors to the northern and central North Sea but are rare in the southernmost North Sea and the English Channel. There is, however, some evidence of increasing occurrences in the western English Channel, though still in very small numbers (Evans, 2012). Our dataset reflects this pattern, showing only sporadic sightings along the Kent coast - the most recent in December 2024, with previous records from 2019 and 2009. This highlights that the Kent coastline may be utilised by some species more sporadically.

3.7 Other Cetacean Species

Killer Whale

Killer whale sightings have primarily been sighted around the east and south coast of Kent, predominantly around Dungeness. This species is most commonly found in northern and western Scotland in the UK, and is a rare sight in the southern North Sea and the English Channel (Evans, 2012). Evans (2012) also reported that when killer whales are found within the latter region they often occur between September and January. Findings from our data differ from this, with over 50% sightings occurring in April. This may highlight a gap in understanding in the seasonal range of killer whales in Kent. However, limited sighting occurrence (12 recordings) limits the confidence in inferring temporal distribution from our dataset.

Figure 20. sighting locations for all other rare species. Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Other Species of Interest

Several other species were recorded in the dataset, including Atlantic spotted dolphin, beluga whale, northern bottlenose whale, sei whale, sperm whale, striped dolphin, white-sided dolphin, and fin whale. Each of these species was documented only once, making it difficult to draw conclusions about their distribution. Nevertheless, their presence underscores Kent's role in supporting a diverse range of cetaceans. The white-sided dolphin was recorded as a stranding, suggesting it may have died elsewhere and drifted ashore with prevailing currents. In contrast, all other species were observed alive.

3.8 Pinniped Species

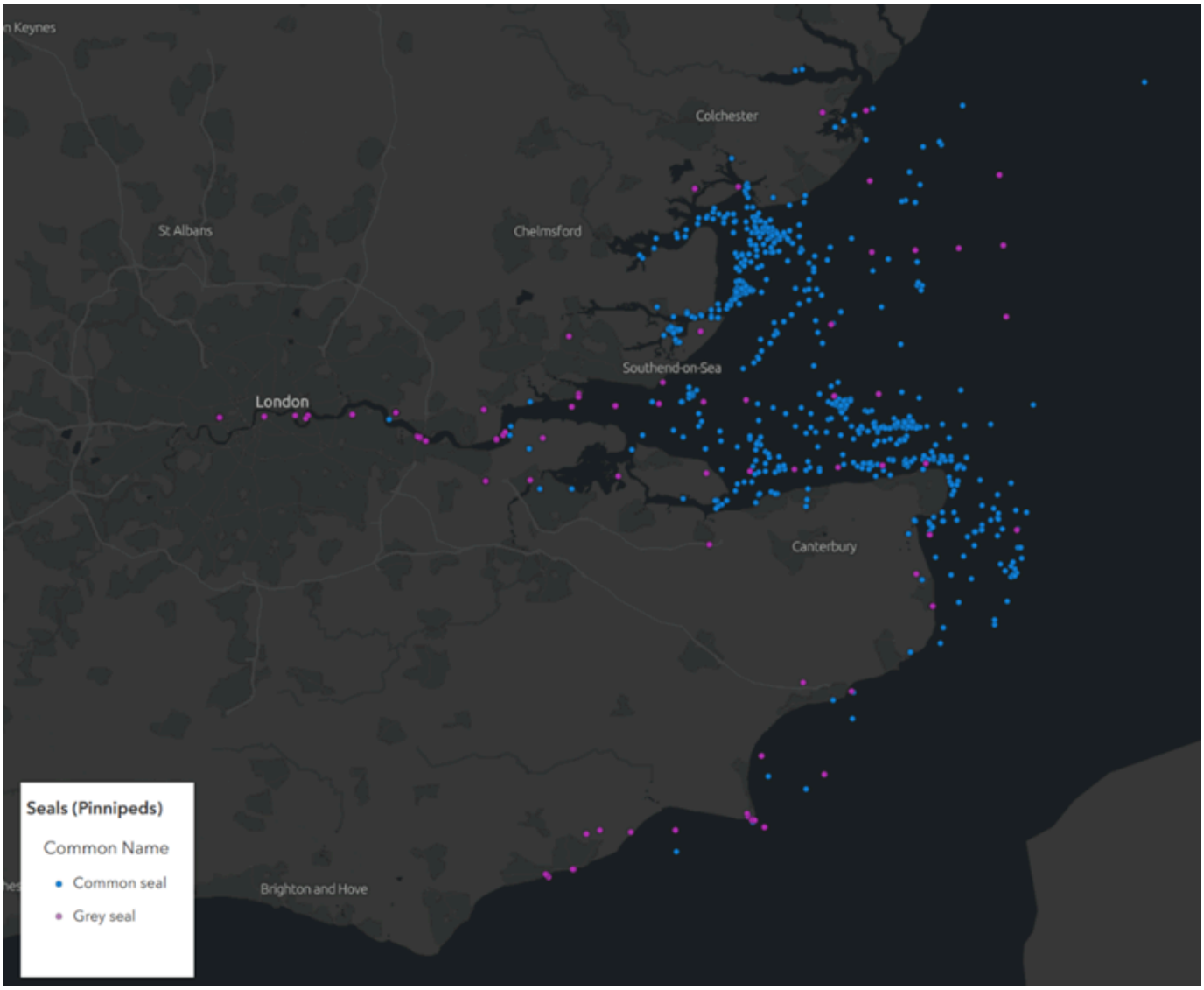


Figure 21. sighting locations for pinniped species (grey seal (260) and common seal (600). Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

Pinnipeds represent another important group of marine mammals in Kents waters. Although not cetaceans, they play an important role in Kent's marine ecosystem and warrant further study. Two pinniped species occur in the region: grey seal and common seal, both recorded at high abundance in the dataset (Table 1), with grey seals emerging as the most frequently observed species overall.

The spatial distribution of pinniped sightings differed from that of cetaceans. While sightings occurred across Kent, they were more concentrated along the North Kent coastline, with additional clusters in Essex, particularly within the Colne Estuary, where numerous sightings were reported.

Habitats associated with pinniped sightings were typically characterised by mudflats and sandbanks, which seals prefer for hauling out. This likely explains their presence in areas such as the Thanet coastline, a hotspot featuring extensive mudflats and sandbanks (Kent Nature Partnership, 2025). Seals are commonly found in estuaries and inshore waters, often observed hauled out (Evans, 2012). Evans also noted that sightings of both species are rare in the English channel, a finding consistent with our dataset, which shows a marked absence of records in southern Kent. However, reports indicate increasing numbers of both species across the Greater Thames Estuary, aligning closely with our observations.

3.9 Hotspot Areas

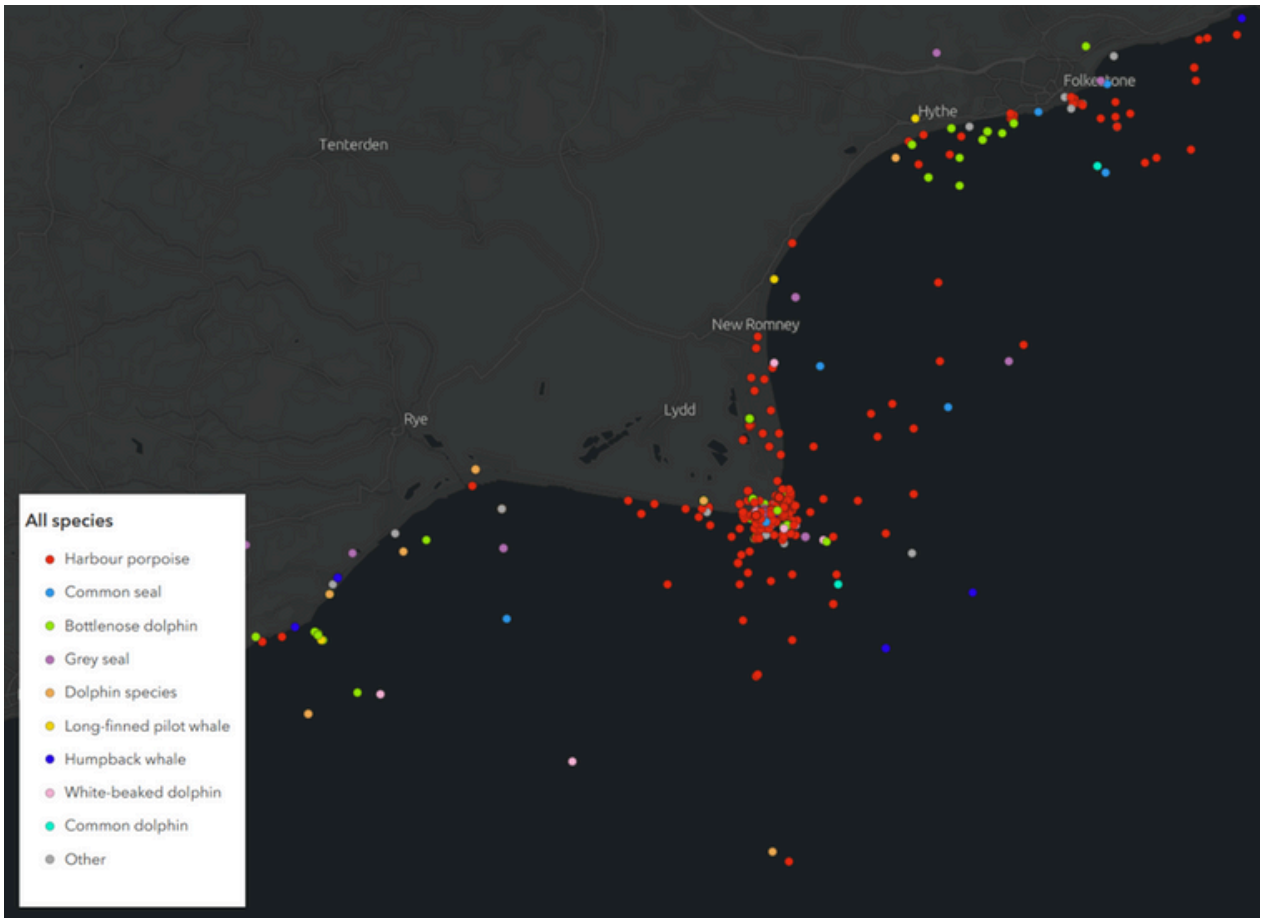


Figure 22. All cetacean sightings captured around Dungeness. Data collected from the following sources: MDE, NBN Atlas, SeaWatch Foundation, JCDP, KEIFCA, NHM strandings database.

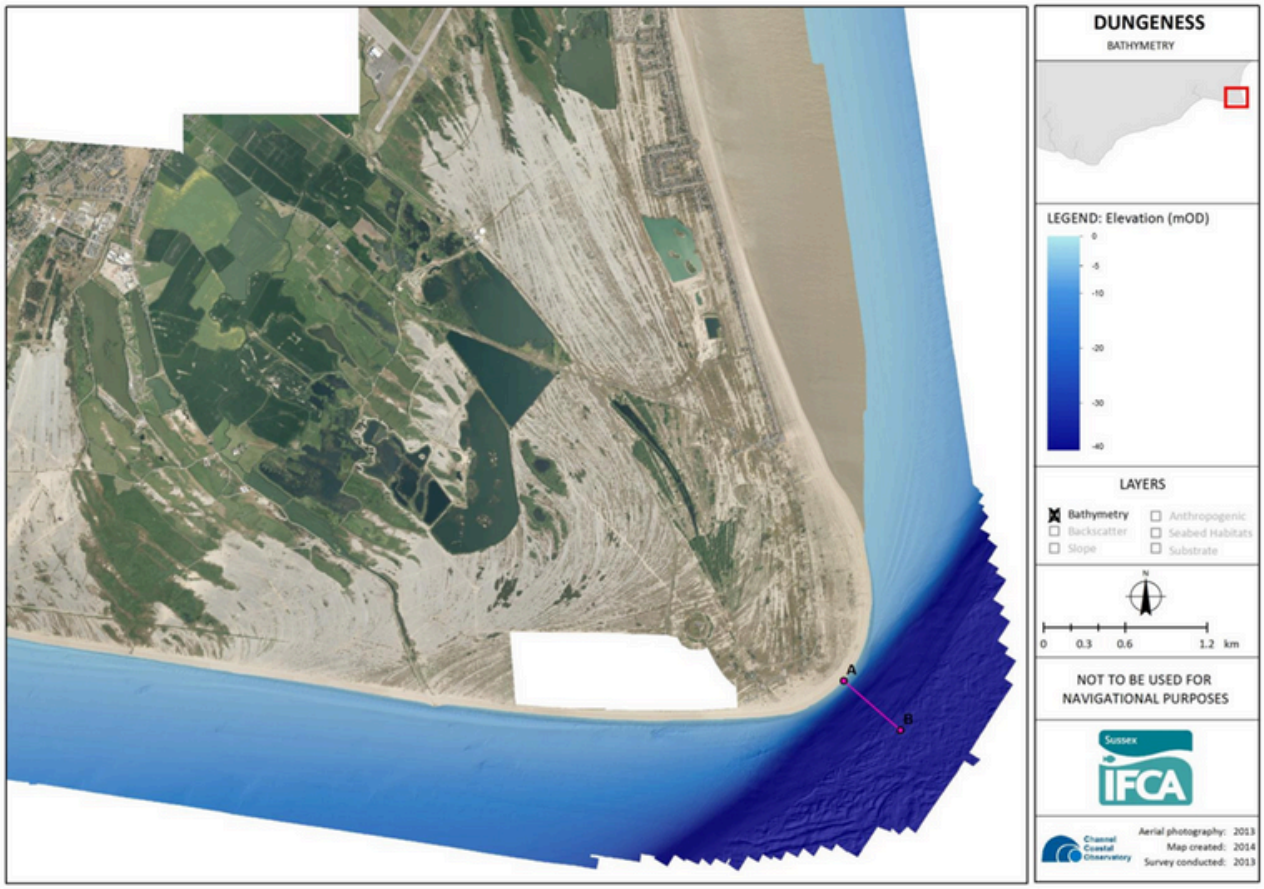


Figure 23. Bathymetry report for Dungeness, taken from Sussex IFCA Seabed Mapping (Colenutt and Evans, 2014). Point A-B refers to a cross-section detailed within SIFCA's report.

Hotspot Areas

Dungeness was a hotspot for sightings within the dataset, hosting a range of species sightings including harbour porpoise, humpback whale, common dolphin, bottlenose dolphin and white-beaked dolphin (fig. 22).

Dungeness Point is a prominent coastal landmark with distinctive bathymetric features. Notably, the seabed south of the headland exhibits a steep gradient, descending from approximately -5 m to -25 m over a short horizontal distance of 150 m (Colenutt & Evans, 2014). Beyond this slope, the depth stabilises at around -35 m from 350 m offshore. This area is also classified as low energy, characterised by circalittoral rock and a relatively sheltered wave climate (Colenutt & Evans, 2014).

These physical attributes may contribute to the observed hotspot of cetacean sightings in the dataset. The combination of steep bathymetric slope, moderate depth, and low sea state creates favourable conditions for inshore cetaceans, which typically inhabit waters shallower than 200 m. For instance, harbour porpoises are known to prefer sheltered coastal environments with depths ranging from 20–200 m (SWF, 2012). A habitat modelling study by Buttifant (2024) identified increased sighting rates of harbour porpoises in areas with low sea states, depths between 35–60 m, and regions with pronounced seabed slope - parameters that closely align with the bathymetric profile of Dungeness Point.

In addition to bathymetry, oceanographic processes may also play a role in cetacean aggregation. Headlands like Dungeness can disrupt coastal currents, generating eddies and fronts. Lopes (2017) discussed how these processes can promote nutrient upwelling which support prey species, thereby attracting top predators like cetaceans. Lopes (2017) also found a positive correlation between bottlenose dolphin sightings and shallow waters, which is consistent with the frequent sightings of this species at Dungeness.

Figure 22 also outlines a notable absence of sightings to the East (New Romney) and West (Rye) of Dungeness Point. This may likely be due to the shallow and flat nature of the seabed in these areas – of which the surrounding area to Rye Harbour had a maximum depth of < -7mOD (Colenutt & Evans, 2014), and similarly in New Romney, the depth out to 1km does not exceed -10mOD (Kinnear et al., 2011), which is likely to be less suitable for cetaceans.

3.2.1 Kent Dolphin Project Opportunistic Sightings

Table 2. Opportunistic Sightings Reported to Kent Dolphin Project Opportunistic Sightings Portall between 11/01/2024 - 30/10/2025

Common Name	Count	Date	Behaviours	Time	Direction of Travel	Length of Encounter
Bottlenose dolphin	10	30/10/2025	Leaping, Milling	09:50	East,West	15
Bottlenose dolphin	6	01/10/2025	Bow/wake riding, Leaping, Milling	15:00	East	10
Grey seal	1	04/07/2025	Logging	19:21	South	10
Humpback whale	1	26/06/2025	Suspected Feeding	09:00	West	15
Common dolphin	1	13/06/2025	Travelling, Fast Swimming	20:39	/	5
Whale	1	26/11/2024	Leaping, Tail Slaps	13:00	West	15
Bottlenose dolphin	30	27/10/2024	Milling	/	Stationary	10
Bottlenose dolphin	20-30	27/10/2024	Bow/wake riding, Suspected Feeding	16:00	West	15
Harbour porpoise	6	11/06/2024	Travelling, Fast Swimming	08:54	/	5
Harbour porpoise	1	11/01/2024	Travelling	12:40	/	5

Since the launch of the KDP, a total of ten opportunistic sightings have been reported via the online portal (Table 2). These records represent a promising start, capturing a diverse range of species, including notable occurrences of humpback whale, bottlenose dolphin and common dolphin. Sightings of such species are important for KDP's objectives. For example, the common dolphin is a key target species, and its early documentation demonstrates that the project is already contributing to knowledge on understudied cetaceans in Kent waters.

Table 2 also outlines the quality and scope of data being collected. Beyond species identification, records include behavioural observations and direction of travel, providing insights into how cetaceans use Kent's coastal environment. These variables are critical for understanding whether sightings indicate feeding, socialising, and mapping movement corridors within the region. Such information will form the foundation for evidence-based conservation strategies and future monitoring efforts.

To further promote the collection of opportunistic sightings, several local community groups have been contacted by a member of KDP in aim to increase engagement. So far, this has resulted in a online blog post dedicated to KDP on Kent's Ornithological Society website.

Opportunistic sightings have also begun to capture some great images of Kent's cetaceans!

3.2.2 Kent Dolphin Project Landwatch Sessions

Since the launch of KDP in June 2025, three landwatch training sessions have been delivered across Dungeness, Botany Bay and Sheerness, resulting in 30 volunteers being equipped to conduct independent surveys. These volunteers now form part of a growing citizen science network for KDP, contributing effort-based data that supports long-term monitoring of cetacean activity along the Kent coastline.

Outside of these organised sessions, there has been a steady stream of landwatch data submitted by volunteers. Data has represented 4 hours of monitoring from across two sites, Dumpton Gap and Tankerton Slopes. Although no sightings were reported during monitoring efforts, it highlights a promising start to volunteer engagement in the project and an initial base of effort-based data is beginning to form.

Image from Kent Dolphin Projects first landwatch session in Dungeness.

Image from landwatch session held in Botany Bay.

During Kent Dolphin Projects landwatch session in Dungeness, several sightings were recorded! These included multiple harbour porpoise sightings along with some grey seals.

Future Steps for Kent Dolphin Project

4.2 Further Data Collection

KDP's research extends beyond recording species presence, absence, and location data. It aims to collect detailed behavioural observations of cetaceans along the Kent coastline. Behavioural data is critical not only to identify which species are present, but to understand why they are using these areas.

Building a robust behavioural dataset is a key priority to help implement effective conservation. Such data can underpin evidence-based policy decisions and support the designation of Marine Protected Areas (MPAs). It can also provide the scientific basis for identifying and implementing Important Marine Mammal Areas (IMMA's), which are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation (Marine Mammal Protected Areas Task Force). Criteria for identifying these areas often include evidence of high-density areas, feeding or breeding sites, and migration corridors. Behavioural insights help confirm these criteria by revealing patterns of habitat use and species-specific needs.

For example, observing behaviours such as bow and wake riding by common dolphins, often accompanied by fast swimming in open waters (CRRU) can indicate areas used for social interaction or play, which are important for species welfare. Similarly, identifying feeding behaviors or mother-calf interactions can highlight critical habitats that require protection. For example, one opportunistic sighting sumbitted to KDP's dataset identified a juvenile within a bottlenose dolphin pod. Without behavioral data, conservation efforts risk overlooking the ecological functions that make these areas significant.

Another major research question concerns migration patterns and connectivity between cetaceans using the Sussex and Kent coastlines. In collaboration with SDP, we aim to leverage their established database to compare sightings and, where possible, identify individual cetaceans moving between these regions. Understanding such connectivity is vital for developing regional conservation strategies and ensuring protection measures reflect the ecological realities of species movement.

Slide taken from Kent Dolphin Projects training materials for Landwatch Training, highlighting the bahavioural traits the project aims to identify.

4. Future Steps for Kent Dolphin Project

4.1 Volunteer Engagement

Increasing and sustaining volunteer engagement is essential for building a robust dataset on cetacean species in Kent. By driving further involvement through KDP, we can strengthen our understanding of local cetacean populations. This includes expanding data on well-documented species such as harbour porpoise, while addressing critical gaps for lesser-studied species like common dolphin and white-beaked dolphin. Early findings from KDP already highlight this potential, with sightings recorded for under-studied species including bottlenose dolphin, humpback whale, and common dolphin.

To grow and maintain a strong volunteer network, the following approaches should be prioritised:

1.**Deepen Engagement with Existing Volunteers**

- This could be achieved through hosting regular structured landwatch sessions, which will create community, provide motivation and encourage consistent participation for volunteers. A similar routine structure has been utilised by Shoresearch, a citizen science programme ran by Kent Wildlife Trust to investigate and track changes in rocky shore species along the Kent coastline.
- Enhanced communication with existing volunteers will also increase interest in the programme. This could be achieved through sharing materials like leaflets and public facing summary reports.

2. **Explore New Volunteer Avenues**

Research indicates that recreational fishermen are among the most active contributors to citizen science in cetacean monitoring (Alessi, Bruccoleri & Cafaro, 2019), likely due to their frequent interaction with marine environments. Engaging with individuals from the recreational fishing and angling community could be a valuable way to increase engagement with the project. Two strategies could be employed to achieve this:

- **Opportunistic Sightings**: Promote simple reporting mechanisms with individuals from the community to capture incidental sightings, though this may yield limited engagement without incentives.
- **Direct Collaboration**: Establish relationships through in-person meetings and detailed programme introductions. Adonis Blue's ongoing citizen science shark tagging programme initiative offers a unique opportunity to integrate KDP communications with existing outreach to anglers. This combined approach could boost reporting rates while reducing stakeholder fatigue.

New volunteers from the wider public may also be targeted through enhanced promotion across relevant platforms. For example: social media, wildlife organisations (e.g., Wildife Trusts, Sussex Dolphin Project) and local educational institutions such as schools and universities.

Exploring and applying for funding opportunities will also increase the capacity and available resource to train and onboard new volunteers.

Future Steps for Kent Dolphin Project

4.3 Educational Outreach

Future scope within the KDP includes building collaborative initiatives with research institutes, NGOs, and educational organisations to enhance local knowledge of cetacean ecology and strengthen the case for marine protection.

The Sussex Dolphin Project provides a successful model, having delivered educational workshops aligned with the national curriculum. These programmes introduce concepts of marine ecology and conservation to young audiences, fostering early engagement with environmental issues. Early engagement is vital because it shapes environmental values during formative years. Introducing marine conservation concepts to young audiences helps build a generation that understands and advocates for ocean health.

KDP has potential to replicate this approach through partnerships with Whitstable Maritime, which has developed a Maritime Curriculum in collaboration with Kent Wildlife Trust and the Marine Conservation Society. This curriculum currently focuses on Whitstable's oyster heritage and includes resources for KS2 and KS3 on oyster biology, ecology, conservation, and maritime heritage. Building on this foundation, KDP could co-develop adaptable sessions on cetacean biology, ecology, and conservation.

Additional opportunities exist through Canterbury City Council's Harbour and Foreshore Services team, which delivers hands-on environmental education to schools, companies, and volunteer groups. Given their strong relationship with Adonis Blue as part of the Coastal Explorer Internship, integrating KDP into their educational materials could significantly expand outreach and awareness.

5. Conclusion

This study's collation and analysis of historical records reveal a clear presence of cetaceans in Kent's waters. Over the past 120 years, 4,999 individual cetaceans representing 18 species have been documented, underscoring Kent as an important region for cetacean activity. While harbour porpoise remains the most frequently recorded species, the findings highlight the need for further research into lesser-documented species such as bottlenose dolphin, common dolphin, and white-beaked dolphin.

Spatial analysis identified key areas for landwatch prioritisation. Dungeness emerged as a notable hotspot, hosting a high diversity of sightings. Concentrating landwatch sessions here will likely increase encounter rates, enhancing volunteer motivation and data collection. Conversely, areas such as Sandwich and Pegwell Bay showed fewer sightings. Continued monitoring in these regions remains essential to confirm absence or detect previously undocumented occurrences.

Although preliminary patterns in seasonal and spatial distribution can be inferred from the dataset and existing literature, the lack of behavioural data limits robust conclusions as to why cetaceans are using Kents waters. Collecting behavioural observations is therefore a priority for KDP to understand why cetaceans use Kent's waters and what drives these behaviours. This knowledge will enable monitoring of population and behavioural changes over time and help assess potential impacts from threats such as anthropogenic pressures.

Encouragingly, initial KDP monitoring efforts have yielded positive outcomes. Opportunistic sightings of species ranging from humpback whales to bottlenose dolphins demonstrate growing engagement and valuable contributions to the dataset. The launch of landwatch sessions has trained over 30 volunteers, who are actively submitting effort-based data. Sustaining and expanding volunteer engagement should remain a core focus, alongside developing new outreach strategies and educational resources to raise awareness and attract additional participants.

6. Limitations

This report uses the best available data to inform its findings; however, there are inherent limitations and knowledge gaps that should be acknowledged. The data were interpreted qualitatively to draw informed insights rather than definitive conclusions, reflecting the current state of understanding. Continued development of the Kent Dolphin Project will help address these gaps by adding new observations and behavioural records, ultimately creating a more comprehensive picture of cetacean presence and habitat use along the Kent coastline.

Limitations and knowledge gaps to be acknowledged include:

1. Seasonal Reporting Bias: Higher coastal footfall and observer activity during spring and summer likely contribute to seasonal reporting bias. This means sightings may disproportionately reflect periods of increased human presence rather than actual cetacean distribution throughout the year.
2. Accuracy of Citizen Science Data: Data collected through citizen science initiatives may not always be accurate, and species misidentification is a recognised risk. To mitigate this, the Kent Dolphin Project requests visual descriptions and/or photographic evidence for reported sightings. However, because this report draws on multiple sources, including historical records, the validity of all data could not be confirmed with confidence
3. Spatial Coverage Gaps: Certain areas, such as Dungeness, have limited monitoring effort. This restricts confidence in identifying these locations as potential hotspots. Increasing systematic survey coverage in underrepresented areas will be essential to improve spatial accuracy and strengthen conservation recommendations.
4. Qualitative Interpretation: Due to these limitations, data were interpreted qualitatively to draw informed insights rather than definitive conclusions. Continued development of the Kent Dolphin Project will help address these gaps by adding new, validated observations and behavioral records, ultimately creating a more comprehensive understanding of cetacean presence and habitat use along the Kent coastline.

7. References

Agreement on the Conservation of Small Cetaceans of the Baltic, North-East Atlantic, Irish and North Seas (ASCOBANS) (2024). *2024 National Report,* ASCOBANS Secretariat. Available at: https://www.ascobans.org/sites/default/files/document/ascobans_ac29_nr7_united-kingdom.pdf (Accessed: 17 December 2025).

Alessi, J., Bruccoleri, F. and Cafaro, V. (2019). '*How citizens can encourage scientific research: The case study of bottlenose dolphins monitoring*', Ocean & Coastal Management. Available at: https://doi.org/10.1016/j.ocecoaman.2018.09.018 (Accessed: 17 December 2025).

Hebridean Whale & Dolphin Trust (HWDT) (2025). '*Bottlenose dolphin',* Hebridean Whale & Dolphin Trust. Available at: https://www.hwdt.org/bottlenose-dolphin (Accessed: 17 December 2025).

Buttifant, J.L. (2021) '*Habitat modelling of the harbour porpoise (Phocoena phocoena) in southwest UK: effects of depth, slope and tidal state*', The Plymouth Student Scientist, 14(2), pp. 27-47. Available at: https://pearl.plymouth.ac.uk/tpss/vol14/iss1/2/.

Cetacean Research & Rescue Unit (CRRU) (2025). '*Long-finned Pilot Whale*', Cetacean Research & Rescue Unit. Available at: https://crru.org.uk/education/species/long-finned-pilot-whale (Accessed: 17 December 2025).

Colenutt, A. and Evans, J. (2014). '*Seabed Mapping: Dungeness to Selsey',* Sussex IFCA Seabed Mapping Project. Available at: https://dnu7gk7p9afoo.cloudfront.net/Files/schip-seabed-mapping-dungeness-to-selsey.pdf (Accessed: 17 December 2025).

Department for Environment, Food and Rural Affairs (DEFRA) Committee (2023). '*Protecting Marine Mammals in the UK and Abroad: Sixth Report of Session 2022–23',* House of Commons. Available at: https://committees.parliament.uk/publications/40588/documents/197985/default/ (Accessed: 17 December 2025).

Evans, P.G. (1980). '*Cetaceans in British waters*', Mammal Review, 10(1), pp. 1–52. Available at: https://doi.org/10.1111/j.1365-2907.1980.tb00232.x.

Evans, P.G. (2012). '*Marine Mammals in the English Channel in Relation to Proposed Dredging Scheme',* Sea Watch Foundation. Available at: https://www.seawatchfoundation.org.uk/wp-content/uploads/2012/08/36.-marine-mammals-in-the-English-Channel-in-relation-to-proposed-dredging-scheme.pdf (Accessed: 17 December 2025).

Evans, P.G., Anderwald, P. and Baines, M.E. (2003). '*Status review of cetaceans in British & Irish waters',* Sea Watch Foundation. Available at: https://www.seawatchfoundation.org.uk/wp-content/uploads/2012/08/28.-UK-cetacean-status-review-2003.pdf (Accessed: 17 December 2025).

Fossi, M.C., Baini, M. and Simmonds, M.P. (2020) '*Cetaceans as ocean health indicators of marine litter impact at global scale*', Frontiers in Environmental Science, 8. Available at: https://www.researchgate.net/publication/347504127_Cetaceans_as_Ocean_Health_Indicators_of_Marine_Litter_Impact_at_Global_Scale.

Hammond, P.S. *et al*. (2013) '*Cetacean abundance and distribution in European Atlantic Shelf Waters to inform conservation and management*', Biological Conservation, 164, pp. 107–122. Available at: https://doi.org/10.1016/j.biocon.2013.04.010.

Hazen, E.L. *et al*. (2019). '*Marine top predators as climate and Ecosystem Sentinels*', Frontiers in Ecology and the Environment, 17(10), pp. 565–574. Available at: https://www.researchgate.net/publication/337017696_Marine_top_predators_as_climate_and_ecosystem_sentinels

Hebridean Whale and Dolphin Trust (HWDT) (2025). '*White-beaked Dolphin', Hebridean Whale and Dolphin Trust*. Available at: https://www.hwdt.org/whitebeaked-dolphin (Accessed: 17 December 2025).

Joint Nature Conservation Committee (JNCC) (2019). '*Harbour Porpoise Phocoena phocoena: UK Habitats Directive Article 17 Report 2019', Joint Nature Conservation Committee*. Available at: https://jncc.gov.uk/jncc-assets/Art17/S1349-UK-Habitats-Directive-Art17-2019.pdf (Accessed: 17 December 2025).

Kent Nature Partnership (2025). '*Harbour and Grey Seals',* Kent Nature Partnership. Available at: https://kentnature.org.uk/species/indicator/harbour-and-grey-seals/ (Accessed: 17 December 2025).

Kinnear, R. (2011). '*Seabed Mapping: Ramsgate to Dungeness – Summary Report',* Southeast Strategic Regional Coastal Monitoring Programme. Available at: https://gis.ices.dk/geonetwork/emodnet-seabedhabitats/api/records/1aa7266d98c1c1a19b5da3d7977b402e.

Kiszka, J.J., Woodstock, M.S. and Heithaus, M.R. (2022) '*Functional roles and ecological importance of small cetaceans in Aquatic Ecosystems*', Frontiers in Marine Science, 9. Available at: https://www.researchgate.net/publication/358850146_Functional_roles_and_ecological_importance_of_small_cetaceans_in_aquatic_ecosystems.

Leeney, R.H. et al. (2008). '*Spatio-temporal analysis of cetacean strandings and bycatch in a UK fisheries hotspot*', Biodiversity and Conservation, 17(10), pp. 2323–2338. doi:10.1007/s10531-008-9377-5.

Lopes, K.F.C.F. (2017). '*Habitat Preference of Bottlenose Dolphin (Tursiops truncatus) in Cardigan Bay'*. MSc dissertation, Bangor University. Available at: https://www.seawatchfoundation.org.uk/wp-content/uploads/2017/11/Katia-Lopes_MSc-thesis.pdf (Accessed: 17 December 2025).

Marine Mammal Protected Areas Task Force (2025). '*Important Marine Mammal Areas (IMMAs)',* Marine Mammal Protected Areas Task Force. Available at: https://www.marinemammalhabitat.org/immas/ (Accessed: 18 December 2025).

Murphy, S. et al. (2010) '*Assessing the effect of persistent organic pollutants on reproductive activity in common dolphins and harbour porpoises*', Journal of Northwest Atlantic Fishery Science, 42, pp. 153–173. doi:10.2960/j.v42.m658.

Sea Mammal Conservation (2025). Available at: https://www.researchgate.net/publication/262915682_Sea_Mammal_Conservation (Accessed: 17 December 2025).

ORCA (2025). '*Long-finned Pilot Whale',* ORCA. Available at: https://orca.org.uk/species-sightings/dolphins/long-finned-pilot-whale (Accessed: 17 December 2025).

OSPAR (2017). '*Harbour Porpoise bycatch', OSPAR.* Available at: https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/biodiversity-status/marine-mammals/harbour-porpoise-bycatch/ (Accessed: 17 December 2025).

Pigeault, R. *et al*. (2024) '*Maritime traffic alters distribution of the harbour porpoise in the North Sea*', Marine Pollution Bulletin, 208, p. 116925. doi:10.1016/j.marpolbul.2024.116925.

Roman, J. and McCarthy, J.J. (2010) '*The Whale Pump: Marine mammals enhance primary productivity in a coastal basin*', PLoS ONE, 5(10). doi:10.1371/journal.pone.0013255.

Russel, D. (2006). '*Phocoena phocoena Harbour porpoise',* Plymouth: Marine Biological Association of the United Kingdom. Available from: https://www.marlin.ac.uk/species/detail/1544 (Accessed: 17 December 2025).

Sea Mammals Research Unit (SMRU) (2016). Available at: http://www.smru.st-andrews.ac.uk/files/2016/08/Indicators-leaflet.pdf (Accessed: 17 December 2025).

Sea Watch Foundation (2012). '*Cetaceans of Southern England'*. Available at: https://seawatchfoundation.org.uk/wp-content/uploads/2012/07/SouthernEngland.pdf (Accessed: 17 December 2025).

Sea Watch Foundation (2012). '*Harbour Porpoise in Southern England'*. Available at: https://seawatchfoundation.org.uk/wp-content/uploads/2012/07/Harbour_Porpoise.pdf (Accessed: 17 December 2025).

Stockin, K., Vella, A. and Evans, P.G.H. (2004) '*Proceedings of the Workshop on Common Dolphins: Current Research, Threats and Issues.',* European Cetacean Society 18th Annual Conference. Available at: https://www.seawatchfoundation.org.uk/wp-content/uploads/2012/08/ECS-Newslett_No_45-CDolphins.pdf (Accessed: 17 December 2025).

Vighi, M. (2025). '*Vessel strikes as a pressure to marine biodiversity'*. Publications Office of the European Union, Luxembourg. doi:10.2760/0669755.

Weilgart, L.S. (2007). '*The impacts of Anthropogenic Ocean Noise on cetaceans and implications for management*', Canadian Journal of Zoology, 85(11), pp. 1091–1116. doi:10.1139/z07-101.