



The  
**Wildlife**  
Trusts

# Priority Actions for North Sea Cetaceans 2026

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## **Priority Actions for North Sea Cetacean Populations 2026**

Cetaceans (dolphins, porpoise and whales) inspire joy and wonder whenever they are seen off the UK coast and they play an intrinsic role in maintaining the health of marine ecosystems. Yet the current UK legal framework for marine mammal protection is incoherent, inadequate, too slow, with a need to accelerate action on marine protected areas (MPAs) and to address the increasing mosaic of threats facing marine mammals (House of Commons Select Committee on Environment, Food and Rural Affairs (HoC EFRA) investigation 2023). The new, overarching [UK Cetacean Conservation Strategy](#), published in December 2025, which aims to protect the 28 species of whales, dolphins, and porpoises found in UK waters, is a step in the right direction but there are no new commitments from UK governments to reduce threats, and the actions set out are not assigned to a responsible body, not quantified, and not time-bound. To address this, The Wildlife Trusts commissioned research on cetacean conservation in the North Sea. This paper summarises key findings on North Sea cetacean populations, their threats, and current management, and outlines The Wildlife Trusts' recommended priority actions that, if implemented in 2026, would strengthen protections in the North Sea and wider UK waters.

### **Priority Actions for 2026**

#### **Action 1: Strengthening the delivery and enforcement of management measure in existing MPAs where cetaceans are a primary feature, to address key activities and pressures**

Implement robust management and mitigation measures to address harmful activities, informed by successful UK MPA case studies and existing toolkits. These will support delivery of the government's Environmental improvement Plan 2025 commitment to review England's MPS network by 2028

#### **Action 2: Prioritise protection of critical habitats and seasonal fronts.**

Thermal fronts in UK shelf seas, such as Flamborough, Dogger Bank, The Wash, and Thames Estuary, drive plankton growth and support a rich diversity of marine species. These areas should be considered for seasonal management or protections owing to their importance for cetacean populations, pelagic diversity and multi-species benefits.

#### **Action 3: Strengthen management of bycatch and fishing impacts.**

Bycatch, especially from gill, tangle, and trammel nets, is the greatest threat to UK cetaceans; The Wildlife Trusts call for phased gear reduction, safer alternatives, and targeted deterrents both within MPAs where cetaceans are a feature, but also in areas of high fisheries bycatch risk to cut mortality and aid recovery.

#### **Action 4: The development of an underwater noise reduction action plan.**

The Wildlife Trusts urge Defra to develop a UK-wide noise reduction plan, that sets ecologically effective decibel thresholds, focusing on the North Sea. This should align with OSPAR's 2025 Regional Action Plan for Noise, beginning with the knowledge-building phase to develop reduction targets and leading to agreement of a pile-driving noise reduction target by 2026, supporting delivery of Good Environmental Status for this descriptor.

#### **Action 5: Enhance monitoring and data collection of cetaceans in the North Sea.**

Accurate data is vital; The Wildlife Trusts call for expanded surveys, funded monitoring technologies, citizen science, and a pilot management programme to fill gaps on bycatch, seasonal distribution, and climate-driven shifts.

## Background

North Sea cetaceans face a mosaic of complex and potentially interacting threats, which may act synergistically and amplify impacts. These include bycatch, underwater noise, vessel strikes, pollution, disturbance including habitat loss, prey depletion, climate change and disease. In response, national and international conservation frameworks, alongside MPAs, have been developed to mitigate pressures and support population recovery.

**Governance and Regulatory Framework:** All cetacean species in UK waters are protected under the Wildlife and Countryside Act 1981 (as amended) within 12 nautical miles, and under the Conservation of Offshore Marine Habitats and Species Regulations 2017 from 12 - 200 nautical miles. The UK Government is responsible for cetacean protection through this legislative framework, the UK Marine Strategy and wider environmental commitments, including the 25 Year Environmental Improvement Plan. The Department for Environment, Food and Rural Affairs (Defra) leads on marine policy and oversees the setting, assessment and reporting of cetacean-related Good Environmental Status (GES) targets under the UK Marine Strategy.

Defra is supported by Joint Nature Conservation Committee (JNCC) and Natural England, which provide the scientific advice, monitoring and evidence underpinning these assessments. These mechanisms also enable the UK to meet its obligations under relevant regional and international agreements, including the Convention for the Protection of the Marine Environment of the North-East Atlantic OSPAR Biodiversity Strategy and Agreement on the Conservation of Small Cetaceans in the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS).

Current assessments indicate that GES has not yet been achieved for cetaceans. As a result, the Government must implement and periodically review programmes of measures, including bycatch reduction, underwater noise management, MPA designation and management, and adaptive controls through marine planning and licensing, to support recovery and long-term population viability, in line with its domestic and international commitments.

**Drivers of Distribution and Habitat Use:** In the context of the North Sea, prey availability and the feeding habits of different cetacean species are drivers of distribution. The predominantly shallow nature of the North Sea, particularly in the southern region, limits the suitability of the area for deep-diving species such as sperm whales and beaked whales. This contrasts with deeper waters to the west and north of the UK, where such species are more frequently recorded. Other factors are also likely to be relevant including water temperature and anthropogenic disturbance. The greater North Sea marine region supports at least eight different cetacean species with a further seven species recorded on an occasional basis. The most commonly recorded species include harbour porpoises, white beaked dolphins and minke whales.

<b>Regularly recorded in North Sea</b>	
Common minke whale ( <i>Balaenoptera acutorostrata</i> )	Harbour porpoise ( <i>Phocoena phocoena</i> )
	White beaked dolphin ( <i>Lagenorhynchus albirostris</i> )
<b>Present in North Sea</b>	
Long-finned pilot whale ( <i>Globicephala melas</i> )	Common bottlenose dolphin ( <i>Tursiops truncatus</i> )
	Atlantic white sided dolphin ( <i>Lagenorhynchus acutus</i> )
Fin whale ( <i>Balaenoptera physalus</i> )	Short-beaked common dolphin ( <i>Delphinus delphis</i> )

Table 1: Whale and dolphin species commonly recorded in the North Sea

Occasional visitors to North Sea	
Sperm whale ( <i>Physeter macrocephalus</i> )	Striped dolphin ( <i>Stenella coeruleoalba</i> )
North Sea beaked whale ( <i>Mesoplodon bidens</i> )	Risso's dolphin ( <i>Grampus griseus</i> )
Humpback whale ( <i>Megaptera novaeangliae</i> )	Orca ( <i>Orcinus orca</i> )
Bottlenose whale ( <i>Hyperoodon ampullatus</i> )	

Table 2: Whale and dolphin species occasionally recorded in the North Sea

**Population Estimates and Key Areas:** North Sea cetaceans in UK waters are part of broader North Atlantic populations, making trend assessment challenging. The latest small cetaceans in European Atlantic Waters and the North Sea (SCANS-IV) survey report took place in 2022. It recorded considerable numbers of sightings of the three most common cetacean species in the North Sea; harbour porpoises, white beaked dolphins and minke whales.

In 2023 JNCC reviewed the management unit boundaries for cetaceans in UK waters providing updated boundaries and abundance estimates for harbour porpoise, white-beaked dolphin, bottlenose dolphin and minke whales in each management unit. Abundance estimates for cetaceans found in the North Sea are shown in Table 3. It should be noted that the management unit for white-beaked dolphin and minke whale includes both the Celtic and Greater North Sea area.

Species	Management Unit (MU)	95% Confidence Interval for UK portion of MU
Harbour porpoise	North Sea	127,442 – 199,954
Bottlenose dolphin	Greater North Sea	476 – 7,461
White-beaked dolphin	Celtic and Greater North Sea	20,026 – 57,807
Minke whale	Celtic and Greater North Sea	6,210 – 17,042

Table 3: North Sea management units and cetacean abundance (95% confidence interval)

Important Marine Mammal Areas (IMMAs) identified by the Marine Mammal Protected Areas Task Force, (which functions through the International Union for Conservation of Nature (IUCN) structures and a global community of marine mammal experts), are discrete habitats important for marine mammals with potential for conservation management. In February 2024, 33 new IMMAs were designated in the Northeast Atlantic and Baltic, including eight areas in the North Sea. The Dogger Bank IMMA is a large shallow bank in the central North Sea which provides an important habitat for harbour porpoises and common minke whales and is also used by white-beaked dolphins and both grey seals and harbour seals. The Southern North Sea and Eastern Channel Seasonal Aggregation IMMA are important for spring aggregations of harbour porpoises and includes a diversity of habitats including sandbanks and reefs and a frontal system which supports prey species.

Although the identification of IMMAs are designed to enable the prioritisation of conservation measures in these areas, the delivery of measures remains with the national governments, intergovernmental organisations for regulatory measures or NGOS and other stakeholders for voluntary measures.

In 2015, Whale and Dolphin Conservation (WDC) identified Areas of Concern (AoC) for harbour porpoise. The pressures assessed included barriers to movement (physical and sound barriers), physical trauma (for example collision or noise), disturbance by physical or acoustic sources which can impact or alter harbour porpoise habitat and behaviour, and ecosystem effects, such as alteration of habitat, to the extent that ecosystems of critical importance such as prey or prey habitat are disturbed or displaced.

Eight AoC were identified, including four in the North Sea: Northeast Scotland (Moray Firth and Firth of Forth), Dogger Bank, and North Yorkshire. The Dogger Bank AoC overlaps with the Southern North Sea harbour porpoise SAC, while there are no cetacean-specific protections off North Yorkshire. WDC reports that aerial surveys from 2018 suggest that the west and north of the Dogger Bank are particularly important for harbour porpoise.

**High Density Areas and Key Habitats:** A 2015 JNCC report used distribution models based on standardised survey data to identify discrete and persistent areas of relatively high harbour porpoise density across the wider UK marine area. The analysis identified several key high-density areas in the North Sea, including the north-western edge of Dogger Bank (summer), the Inner Silver Pit, offshore waters east of Norfolk and the outer Thames Estuary (winter), and Smith Bank in the Outer Moray Firth (summer). A further three areas in the North Sea were identified but not included in the initial list of high-density areas due to less than three years of survey effort. These are parts of the high-density zone between the western edge of Dogger Bank and Norfolk coast including both the Inner and Outer Silver Pit areas, offshore north of Shetland and the edge of the Norwegian Trench.

**Designated Sites:** There are currently 377 MPAs in UK waters, of these, 11 sites are designated with cetaceans as a primary qualifying feature with only one located in the English North Sea; the Southern North Sea Special Area of Conservation (SAC) which is designated for harbour porpoise. England has more recently designated three Highly Protected Marine Areas (HPMAs) where the whole marine ecosystem should be protected. The North East of Farnes Deep HPMA overlaps with an existing Marine Conservation Zone (MCZ) and the protected features are determined to be in a favourable condition. It is considered to be the only HPMA in offshore English waters that represents a relatively natural ecosystem. Important for a range of benthic habitats, spawning areas and a variety of invertebrates, fish and seabird, five marine mammal species have also been recorded in the area including harbour porpoise and white beaked dolphin.

Fourteen sites in the North Sea were included in the long list of HPMAs proposed by respondents, and originally three North Sea sites were consulted on for designation as HPMAs. Unfortunately, two sites, Lindisfarne and Inner Silver Pit South, were not designated because of the potential for impact on fishing activities, despite the Inner Silver Pit being identified as a persistent high-density area for harbour porpoise.

**Importance of Thermal Fronts for Marine Biodiversity:** There is a considerable body of work on the importance of thermal fronts in UK shelf seas as key sites for marine pelagic diversity. It is unequivocal that fronts are important sites for cetaceans, as well as basking sharks and seabirds due to the feeding opportunities provided.

Several fronts have been identified in the North Sea region including the Flamborough Front, Dogger Bank, The Wash and Thames Estuary fronts which are most evident during summer months when the sea can stratify. Persistent oceanographic fronts have been proposed as a proxy for pelagic biodiversity hotspots, providing a cost-effective means of determining the relative conservation importance of candidate sites for marine protection and management, particularly for mobile species such as seabirds and cetaceans.

## Threats and Management

Designation of protected areas alone cannot fully safeguard cetacean populations. Threats arise both inside and beyond MPAs, and these are also mobile species that frequently move beyond static MPA

boundaries. Effective conservation requires adaptive, multifaceted approaches informed by robust data on abundance, distribution, seasonal use, and life history.

Research published by WDC in 2024 assessed management plans across the 11 UK MPAs where cetaceans are a primary feature, including the Southern North Sea SAC, using the Marine Mammal Management Toolkit aligned with IUCN guidelines. The assessment highlights strengths and gaps in enforcement, outreach, and mitigation, demonstrating that robust, site-specific management measures are essential to address key threats and ensure MPAs effectively protect cetaceans. Non-assessed areas, including HPMAAs, SSSIs, and sites where cetaceans are a secondary feature, offer opportunities to expand and harmonise conservation across the wider marine environment.

Successes and failures of management plans within these MPAs can serve as case studies for best practice. Building on these lessons, updated and strengthened management plans should be prioritised for North Sea cetaceans, providing targeted protection in existing MPAs and further marine areas highlighted as significant for cetacean populations.

**Bycatch and entanglement:** Bycatch and entanglement in fishing gear remain the greatest threat to cetaceans in the North Sea and UK waters, with non-selective gill nets posing the highest risk and causing hundreds of thousands of deaths globally each year. While mitigation measures such as acoustic deterrent devices and initiatives including the Bycatch Monitoring Programme, Bycatch Mitigation Initiative and Clean Catch UK are working towards better understanding and mitigation of impacts in some cases, monitoring and progress remain extremely limited. Expert bodies and international experience highlight the need for stronger, targeted measures, including restricting high-bycatch gears in cetacean hotspots, implementing technical mitigation such as acoustic deterrents as a short term, reactionary measure, improving monitoring and reporting compliance, and expanding trials of alternative fishing methods. Remote Electronic Monitoring (REM) on board vessels can also significantly improve monitoring and compliance, helping to reduce cetacean bycatch.

In written evidence submitted to the UK House of Commons EFRA Select Committee inquiry in 2022, the IUCN Species Survival Commission and Cetacean Specialist Group urged the UK to prioritise action to reduce marine mammal bycatch in its territorial waters. This included the use of proven, readily available technical mitigation measures and restrictions on non-selective, high-bycatch fishing gears in areas recognised as being of critical importance to marine mammal populations. In practice, this implies that, at a minimum, restrictions on the use of non-selective, high-bycatch fishing gears should be applied across England's cetacean protected areas.

**Disturbance and underwater noise:** Shipping, offshore wind, oil and gas activities, and military operations generate underwater noise that can disrupt cetacean behaviour and communication and may cause temporary or permanent hearing damage. Harbour porpoises are particularly sensitive, though bottlenose dolphins and minke whales are also affected.

Noise from offshore wind construction and seismic surveys can displace cetaceans from important feeding and breeding areas. Guidance from JNCC defines significant disturbance for harbour porpoise SACs using time-area thresholds: disturbance is significant if it excludes animals from more than 20% of a site in a single day or more than 10% on average across a season. A 2025 review by JNCC on impulsive noise Effective Deterrence Ranges (EDRs) for harbour porpoises found that impulsive noise sources such as impact piling and seismic surveys can cause behavioural disturbance over tens of kilometres, with the

extent depending on sound energy, propagation conditions, and mitigation measures, including noise abatement systems. These EDRs are derived from robust acoustic modelling and empirical observations of porpoise responses, and the review recommends using them to estimate the area affected when assessing impacts in SACs. Displacement from important feeding and breeding areas can have population-level consequences, highlighting the need for careful spatial and temporal management.

Several noise reduction methods and technologies have been identified as having a high level of maturity and potential for widespread application, including passive vibration isolation mounts, vortex generators, improved hull form design and energy-saving devices that reduce propeller speed. However, uptake of these technologies remains limited due to the absence of regulatory requirements, insufficient evidence on the effectiveness of different devices, and a lack of economic incentives to reduce underwater noise.

**Vessel strikes:** Globally, collisions are recorded in over 75 marine species, with risk increasing in high traffic areas. A range of mitigation measures have been developed most of which are relevant to reducing the risk of collisions with whales, including re-routing measures, speed restrictions, animal detection onboard the vessel, deterrent devices, propeller guards, early warning systems, passive acoustic buoy systems, and mobile phone alerting systems. Mandatory ship strike reporting will not protect whales from strikes but has proved an effective method to educate mariners on ship strike issues.

**Pollution:** Many cetaceans carry high levels of polychlorinated biphenyls (PCBs), organochlorine pesticides, and emerging chemicals such as per- and polyfluoroalkyl substances (PFAS), a class of over 10,000 persistent ‘forever chemicals’ that resist degradation. These pollutants are known to affect cetacean health, reproduction, and population recovery. A 2023 article by the Zoological Society of London reported PCB levels in stranded UK orcas at around 30 times the threshold associated with health impacts. An orca found dead in west Scotland in 2017 had one of the highest pollutant loads ever recorded in marine mammals, over 100 times the level considered safe, likely contributing to infertility and the decline of the resident orca pod. Plastic pollution also causes issues when ingested such as digestive blockages, entanglement, and mortality in thousands of marine mammals each year. Significant reductions in chemical and plastic inputs to the ocean are urgently needed.

**Food depletion:** Depletion of prey can arise due to over-exploitation of fisheries and climatic changes. Reduced availability of food to cetacean populations can lead to changes in behaviour of animals due to displacement in search of food and decline in the health of individuals or populations. In the UK, collapse of North Sea herring stocks and more recently sand eels could be contributing to declines and changes in distribution of cetaceans as well as seabirds and other marine wildlife, while shifts in diet corresponding to a decline in the abundance of preferred prey species of harbour porpoise has been observed in Scottish waters and the southern North Sea. Recent studies indicates that the nutritional status of marine mammals has declined significantly in many regions of the UK, with an increased number of emaciated animals washing up on shores in recent years.

**Habitat degradation:** Habitat degradation and loss arise from activities such as coastal and offshore construction, including ports, offshore infrastructure and tidal energy developments, and from marine pollution from multiple sources, and fishing activity. Degraded marine ecosystems reduce prey availability and feeding opportunities, while additional stressors such as underwater noise further compound impacts, increasing physiological stress and potentially making cetaceans more vulnerable to disease.

**Disease:** Cetaceans are vulnerable to viral, bacterial, and protozoan infections, including *morbillivirus*, *herpesvirus*, *Brucella ceti*, and *Toxoplasma gondii*. High chemical burdens may increase susceptibility, and disease is a major cause of mortality in stranded cetaceans. Fungal infections and potential disease transmission to humans are emerging concerns. Disease is a major cause of death in stranded cetaceans in the ASCOBANS area (Baltic, North East Atlantic, Irish and North Seas), particularly affecting harbour porpoises, common dolphins, and long-finned pilot whales.

**Climate change:** Warming and acidifying seas are shifting cetacean distributions northwards. Cooler-water species, such as white-beaked and Atlantic white-sided dolphins, are declining, while warmer-water species, including short-beaked common and striped dolphins, are increasing. Changes in distribution, prey availability and migration patterns may expose populations to new threats.

## Priority Actions for the Conservation of North Sea Cetaceans 2026

- These recommended measures focus on voluntary, regulatory, and collaborative approaches within existing legislation.
- They aim to complement or work towards targets under existing UK and international initiatives (SCANS, ASCOBANS, OSPAR, UK Marine Strategy).
- Actions are adaptive and will be updated as new monitoring data becomes available.

### **Action 1: Strengthening the implementation and enforcement of management measures in existing MPAs where cetaceans are a primary qualifying feature, to address key activities and pressures.**

Protected area designation and statutory protection on their own will not secure cetacean recovery; meaningful conservation depends on adaptive, evidence-led management across and beyond MPA boundaries. One of the primary conclusions from the HoC EFRA report 2023, based on over 30 pieces of written and oral evidence, was a need to accelerate actions in relation to protected areas in UK waters. By using established assessment toolkits to evaluate successes and shortcomings in existing MPA management plans, practical case studies can be developed to highlight strengths, weaknesses and enforcement gaps. These insights are invaluable for guiding the prioritisation of strengthened and updated management for North Sea cetaceans, ensuring targeted protection within current MPAs and other priority areas critical for cetacean populations. This work would also complement the ongoing Stage 4 MPA management process led by the Marine Management Organisation, which recently undertook a call for evidence and is currently scoping management options for harbour porpoise SACs, including the large North Sea site, helping ensure that emerging management measures are informed by practical evidence and lessons from existing plans.

**Action 2: Prioritise protection of critical habitats and seasonal fronts.** Thermal fronts in UK shelf seas are key sites for marine pelagic diversity and feeding grounds for cetaceans. Satellite data has identified major North Sea fronts, including Flamborough, Dogger Bank, Wash, and Thames Estuary. The convergence of waters in the North Sea Flamborough Front leads to increased plankton growth and secondary productivity supporting a diverse range of marine species. Dogger Bank is highlighted repeatedly as a key North Sea habitat: it is designated as an IMMA and an Area of Concern, overlaps with the Southern North Sea SAC, supports high-density populations of harbour porpoises, minke whales, and white-beaked dolphins, and is recognised as a critical site for conservation including thermal front-associated productivity.

The Wildlife Trusts feel the protection of critical habitats is a key priority, underpinned by evidence owing to their importance for cetacean populations, pelagic diversity and multi-species benefits. Upwellings and thermal fronts can be protected without formal designation through targeted management of human activities (for example through effective marine spatial planning), adaptive monitoring, and ecosystem-based measures. Seasonal or dynamic closures, gear restrictions, vessel routing, and noise limits can reduce bycatch, collisions, and disturbance during key feeding periods within these areas. Access to the wide range of available survey, satellite, acoustic, and fisheries data etc, allows managers to make evidence-based decisions, ensuring these productive areas continue to support cetaceans, but at present these data are dispersed, difficult to analyse collectively and have significant knowledge gaps which need addressed. Working with industry is also required to promote compliance and adoption of best practices.

**Action 3: Strengthen management to reduce bycatch and fishing impacts.** Bycatch remains the greatest threat to cetacean populations globally, including in the North Sea and English waters. Evidence shows that non-selective gears such as gill nets, tangle nets, and trammel nets cause the highest mortality. The Wildlife Trusts advocate for phased reduction of these high-risk gears in priority areas, such as Dogger Bank, trials of safer gear, and deployment of acoustic deterrent devices as a reactive, short-term mitigation tool in high-risk areas. Such measures should be focused in MPAs and other high-density cetacean areas to reduce mortality and support population recovery.

**Action 4: The development of an underwater noise reduction action plan should be prioritised for UK waters, in cooperation with neighbouring countries:** The UK Marine Strategy treats underwater noise, both impulsive and continuous, as a form of marine pollution that must be managed so it does not have adverse effects on marine ecosystems and animals at the population level. In alignment with the UK's international and national commitments under OSPAR's 2025 Regional Action Plan for Noise and the UK Marine Strategy, The Wildlife Trusts urge Defra to develop a UK-wide underwater noise reduction plan in order to achieve Good Environmental Status for this descriptor, while aligning with OSPAR's 2025 Regional Action Plan for Noise, beginning with the knowledge-building phase to develop reduction targets and leading to agreement of a pile-driving noise reduction target by 2026. The underwater noise reduction plan must include underwater noise decibel thresholds that are ecologically effective and technically feasible.

**Action 5: Enhance monitoring and data collection of cetaceans in the North Sea:**

Accurate knowledge of cetacean populations, distributions, and threats is critical to effective management. Evidence from SCANS programmes, citizen science, and technological monitoring highlights data gaps, particularly for bycatch, seasonal distributions, and shifts in populations due to climate change. The Wildlife Trusts recommend increased surveys and monitoring across existing MPAs and priority areas, with ring-fenced funding for new technologies and citizen science initiatives. A pilot cetacean management programme, building on lessons from the WDC assessment of management plans using the Marine Mammals Management Toolkit should be developed to demonstrate that robust, site-specific management measures work to address and mitigate key threats and ensure MPAs effectively protect cetaceans.