



JNCC Report 812A

**Offshore Regulations General Implementation Report for the Reporting
period 2019–2024 - UK Offshore Marine Area**

**Regulation 6A of the Conservation of Offshore Marine Habitats
and Species Regulations 2017**

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Detailed evidence for all aspects of this report and information on compliance to the Offshore Regulations are provided in the Technical Annex to Offshore Regulations General Implementation Report for the Reporting period 2019-2024 - UK Offshore Marine Area (Mitchell *et al.* 2026). Further information on the conservation status of habitats and species under the Offshore Regulations is published separately in their respective [Feature Reports](#). However, overall status and trends are summarised in this report and the Technical Annex (Mitchell *et al.* 2026).

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Key Messages

This is the first UK report under Regulation 6A of the Offshore Regulations (2017) (hereafter referred to as ‘the Offshore Regulations’), covering the period 2019–2024. It replaces previous EU reporting under the Habitats and Birds Directives following the UK’s exit from the EU. The report focuses on the implementation of measures to protect nationally important habitats and species in the UK offshore marine area.

Key messages from the report are highlighted below with further detail available in the subsequent chapters of this report and in the Technical Annex, published separately (Mitchell *et al.* 2026).

Extent of Protection

Marine Protected Areas (MPAs) encompass over 38% of the UK’s seas and 36% of the UK offshore marine area. The MPAs under the Offshore Regulations are Special Areas of Conservation (SACs) for habitats, marine mammals and marine turtles, which cover 11% of the UK offshore marine area and Special Protection Areas (SPAs) for seabirds, which cover 0.01% UK offshore marine area.

Conservation Status

None of the three offshore benthic (seabed) habitats have achieved Favourable Conservation Status. Sandbanks and Reefs are assessed as unfavourable-bad, whilst the condition of submarine structures is assessed as unknown (Figure 1)

Of the 17 marine mammal species resident in UK waters, four have favourable conservation status (grey seal, bottlenose dolphin, common dolphin, and Risso’s dolphin). Harbour porpoise, common seal, and minke whale are assessed as unfavourable-inadequate. The remaining species are assessed as unknown due to insufficient data (Figure 1).

Leatherback turtle is the only marine turtle species to regularly occur in UK waters and is assessed as unknown due to insufficient data.

Evidence shows that the populations of offshore marine bird species are not being maintained, and 12 out of 16 species populations assessed (10 species) are threatened with extinction in Great Britain (under IUCN Red List criteria – Figure 1).

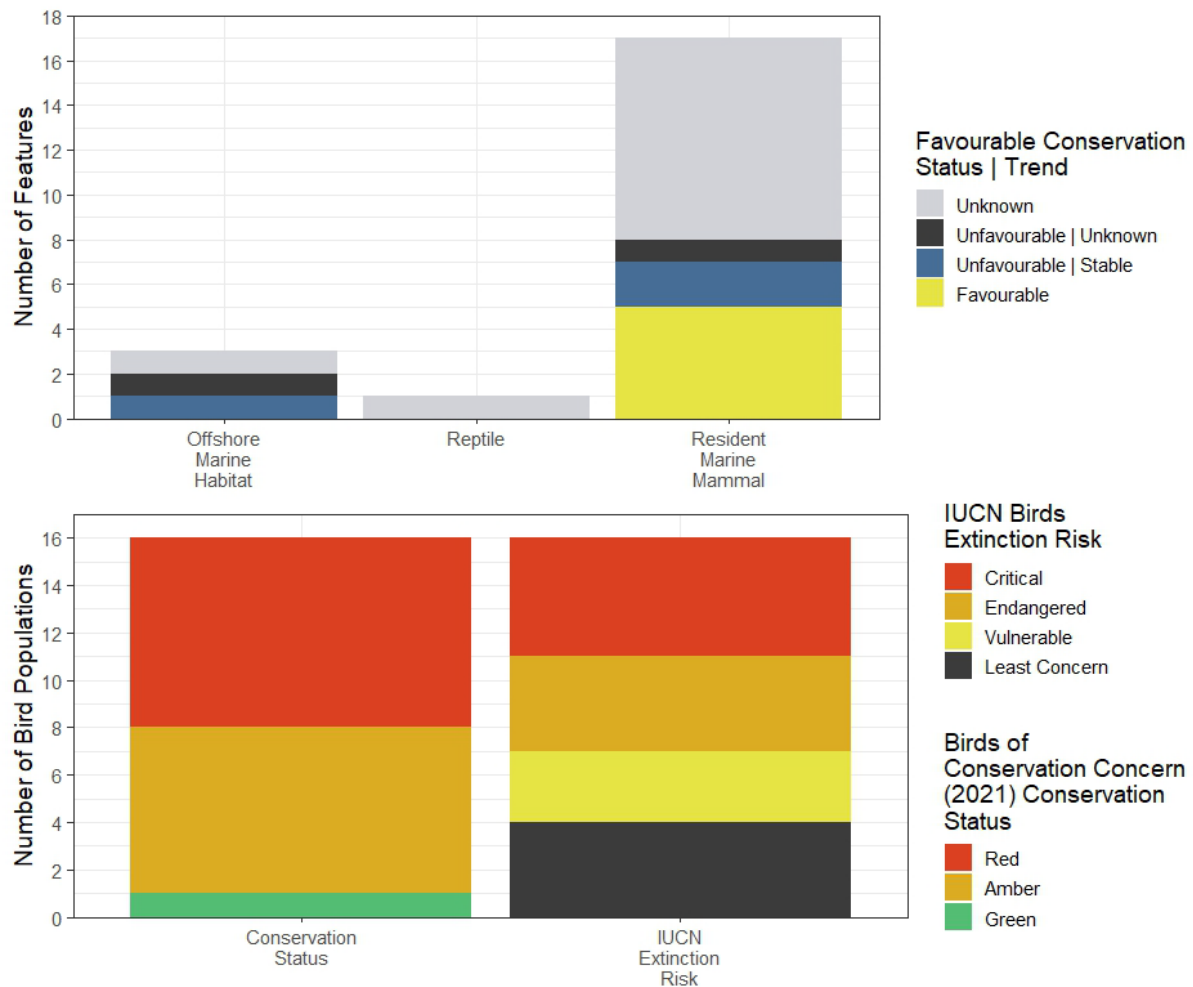


Figure 1: Current status of UK offshore marine habitats, reptiles, marine mammals and marine birds. This shows for habitats, reptiles and mammals the number of features (i.e. habitat type or species) in each Conservation Status and Trend category (Unfavourable-Inadequate and Unfavourable-Bad have been combined); and for birds, the Conservation Status (Red, Amber, Green) and Extinction Risk for each population (i.e. breeding and/or wintering populations of 15 different species) (see Stanbury *et al.* 2021, 2024). Vagrant marine mammals and bird populations without an assessment or that are data deficient are not included.

Main Pressures

Climate change is impacting all protected species and habitats. Climate change is the greatest pressure on seabirds due to its effects on the marine food web and amount of prey available.

Fishing has the most widespread impact on all three offshore benthic habitats. Bottom-towed fishing gear disturbs and damages the seafloor and the animals living on or within it. Benthic habitats can be damaged and destroyed by the activities of other offshore industries, including offshore wind farms, submarine cable-laying, oil and gas and rock dumping.

In addition to the impacts of climate change, marine mammals are also accidentally caught and killed as fisheries bycatch. Their health is also affected by loud underwater noises from industry and the accumulation of chemical pollutants in their blubber.

Measures Taken

During the reporting period (2019–2024), a number of measures have been taken to address current pressures:

- New fishing byelaws in offshore MPAs to restrict bottom-towed gear.
- UK ban on sandeel fishing to improve food availability for seabirds.
- Compensatory measures for offshore wind projects for Sandbank and Reef habitats, and for Kittiwakes and Red-throated Divers.
- Guidance and monitoring initiatives to reduce underwater noise and marine mammal bycatch.
- Continued international cooperation on the cross-border protection of species and habitats in the NE Atlantic.

Challenges

Monitoring of offshore habitats and species is limited by resource constraints, the mobility of many species, and gaps in survey coverage. For some pressures, such as seabird bycatch, monitoring of the UK fishing fleet is unrepresentative. This has resulted in low confidence in our ability to assess the status of nationally important species and habitats.

Pressures from offshore industries and climate change continue to impede recovery of damaged habitats and depleted species. Much stronger links between evidence and decision-making are needed to avoid significant cumulative impacts from multiple activities.

Looking Ahead

Priorities for the UK offshore include improving monitoring and data collection, implementing fisheries management plans, minimising bycatch of marine mammals and other non-target species and delivering strategic compensation measures to support recovery of habitats and species.

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1. Introduction

This is the first report under Regulation 6A of the [Conservation of Offshore Marine Habitats and Species Regulations 2017](#) (as amended) (hereafter, the Offshore Regulations). The Offshore Regulations provide part of the legal framework to meet the UK's conservation objectives for nationally important habitats and species within the UK offshore marine area. Equivalent reporting for nationally important habitats and species within terrestrial and inshore areas are legislated under the country Habitats Regulations: [Regulation 9A in England and Wales](#), [Regulation 3Z in Scotland](#), and [Regulation 3Z in Northern Ireland](#) (hereafter collectively referred to as the 'Habitats Regulations'), with reports published by the UK and devolved governments at the respective country scale.

The UK's seas cover 88.5 million hectares; the majority of this - 72.2 million hectares, is the UK offshore marine area. The UK offshore area extends from beyond 12 nautical miles from the shore and encompasses the UK's Exclusive Economic Zone and the UK continental shelf.

This report supersedes the UK's previous reporting under Article 17 of the EU Habitats Directive (92/43/EEC) and Article 12 of the EU Wild Birds Directive (2009/147/EC) (hereafter, the Habitats Directive, and the Birds Directive respectively), following the UK's withdrawal from the EU. This report covers the period 2019-2024 only and measures implemented after this time are not discussed.

Conservation status of nationally important habitats and species including wild birds in the reporting period from 2019 - 2024 is assessed. This report also identifies the main pressures effecting these habitats and species and assesses the implementation and efficacy of measures to support their protection and recovery.

These nationally important habitats and species support other species, are part of food webs and wider ecosystems and provide ecosystem services and benefits to both nature and society. Achieving favourable condition for these habitats and species can, in turn, result in healthy functioning ecosystems that can better support the delivery of these benefits. By reporting on their status, we can therefore better understand their condition and what measures may need to be taken to restore them.

Detailed information on all aspects of this report is provided in the Technical Annex (Mitchell *et al.* 2026). Further information on the conservation status of habitats and species under the Offshore Regulations is published separately in their respective [Feature Reports](#). However, overall status and trends are summarised in this report and the Technical Annex (Mitchell *et al.* 2026).

2. Protecting species and habitats

The Offshore Regulations protect habitats and species listed in the Annexes of both the Habitats and the Birds Directives at the time of EU exit and all regularly occurring migratory wild birds. In the UK offshore marine area, these include:

- **Seabed (or ‘benthic’) habitats:** Sandbanks which are slightly covered by seawater all the time, Reefs and Submarine structures made by leaking gases.
- **Marine mammals:** Grey Seal and Harbour Seal, 15 species of resident whales and dolphins (cetaceans) including offshore and inshore populations of Bottlenose Dolphin that are assessed separately and a group of species of beaked whale that are assessed as one.
- **Marine reptiles:** Leatherback Turtle.
- **Marine birds:** 15 seabird species that are all regularly occurring migratory species and all but one are regularly occurring breeding species, including the breeding and wintering populations of Herring Gull that were assessed separately. Two species, European Storm-Petrel and Leach’s Storm-Petrel receive additional protection because they were listed in Annex I of the Birds Directive at the time of EU Exit.

All species of cetacean, marine turtle and marine bird are protected from incidental capture, intentional killing, injuring or disturbing in UK waters through the Offshore Regulations and the Wildlife and Countryside Act 1981. Seals are protected through a mix of legislation throughout all UK waters. Seals are not hunted for their meat in the UK, but licences can be granted for the take or killing of seals for reasons relating to animal and public safety, scientific research and conservation efforts. Until 2021, licences could also be granted for the take or killing of seals thought to be having an impact on fisheries or aquaculture however, changes to the legislation removed these grounds for which licences could be granted. This has significantly decreased the number of licences granted.

2.1 Designating Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

The UK Marine Protected Area (MPA) network (Figure 2) covers more than 38% of the UK’s seas. It consists of multiple types of MPA, which when combined with SACs and SPAs, covers 36% of the UK’s offshore marine area.

Under the Offshore Regulations and Habitats Regulations, SACs are designated to protect and conserve habitats and species listed in Annex I and Annex II of the Habitats Directive as transposed into the Offshore Regulations and Habitats Regulations. In offshore waters, this covers all three offshore protected habitats, and the Harbour Porpoise. In total, offshore SACs cover just under 11% of the UK’s offshore marine area (Table 1). No new SACs have been designated since 2019, whereas three new SPAs have been designated since 2019 for regularly occurring marine bird species in offshore waters. All three are partly in Scottish inshore waters. There are now eight SPAs that are at least partly in offshore waters, with one, the Irish Sea Front SPA, wholly offshore. Together, the eight SPAs cover 0.01% of UK’s offshore marine area (Table 1).

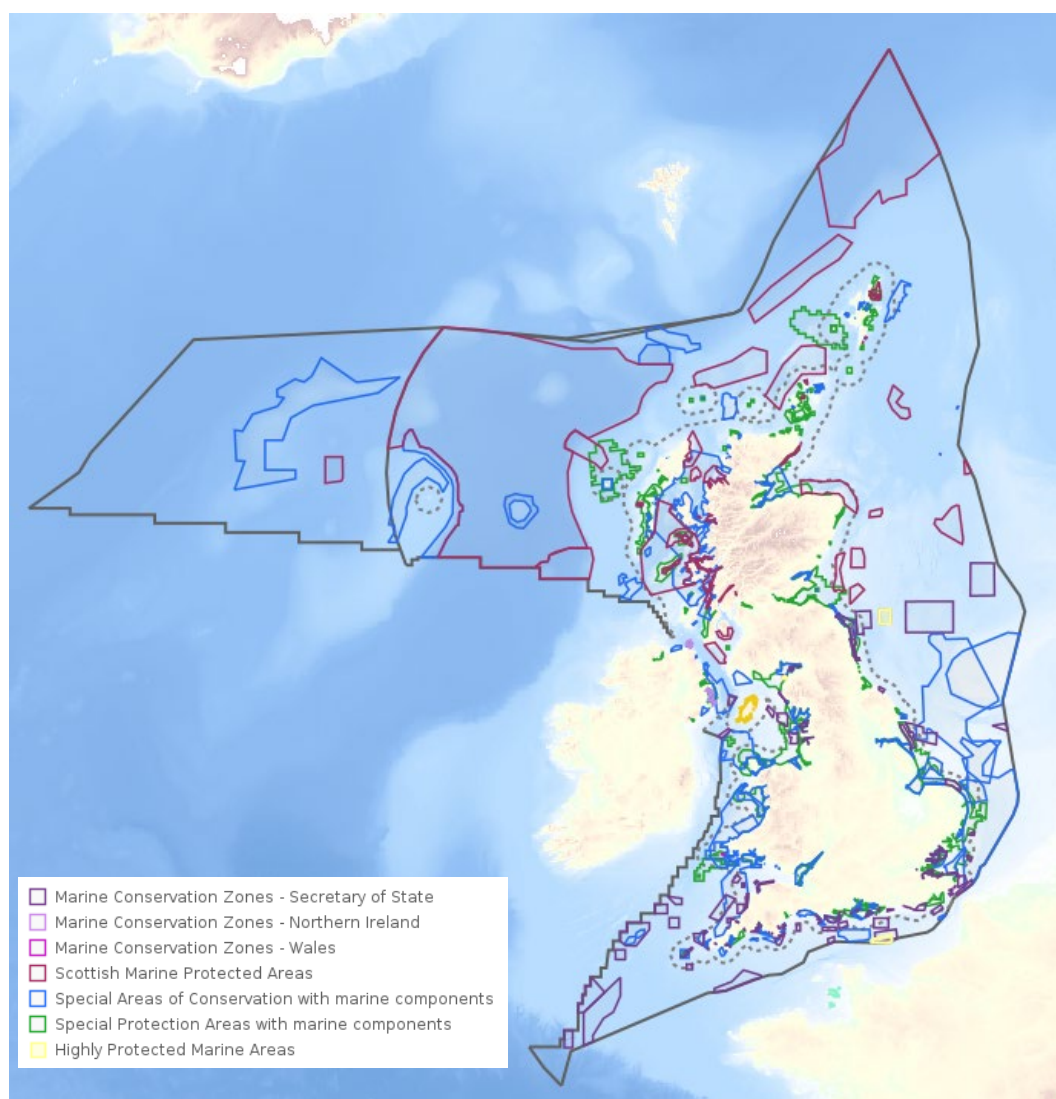


Figure 2: Map of Marine Protected Areas within the UK waters. [source: <https://jncc.gov.uk/mpa-mapper/> 27/08/2025].

Table 1: Area and percentage cover of SACs and SPAs in the UK offshore marine area for marine habitats, marine species, and offshore UK waters. There is overlap between marine habitat and species SACs, therefore the combined UK offshore total is not equivalent to the summation of marine habitats and species SACs.

Designation	Number of SACs / SPAs	SAC / SPA area in UK offshore marine area (km ²)	Percentage of the UK offshore marine area covered by SACs / SPAs
Marine habitats SACs	20	49,521	6.86%
Marine mammal SACs	5	37,939	5.25%
UK Offshore SAC Total	25	77,646	10.75%
Marine Bird SPAs	8	6,406	0.01%

3. Pressures and Measures in the Offshore Marine Area

The UK offshore marine environment faces a range of pressures that influence the condition of protected habitats and species. These pressures vary in intensity and impact, but several stand out as particularly significant.

The main pressure which has the most widespread impact on nationally important offshore benthic habitats is caused by fishing. In particular, the use of bottom-towed gear creates physical disturbance and, in some cases, causes the loss of benthic habitats both within and outside Marine Protected Areas (OSPAR 2023a; UKMS 2024a). Other offshore industries such as oil and gas, carbon storage and offshore wind also cause disturbance and loss of benthic habitats during construction and decommissioning phases. Climate change is a threat to all marine habitats and species (OSPAR 2023b; Moore & Smale 2020) and is recognised as the greatest long-term threat to seabirds, altering marine food webs, reducing prey availability and affecting breeding success (Pearce-Higgins *et al.* 2021; Mitchell *et al.* 2020; OSPAR 2023c). Incidental capture of marine mammals and seabirds in fishing gear (bycatch) remains a major concern. Recent assessments indicate that bycatch rates of Harbour Porpoise and Common Dolphin exceed internationally agreed thresholds (Taylor *et al.* 2022). Increasing levels of underwater noise from offshore industries and shipping also pose risks to cetaceans, which rely on sound for navigation and communication (UKMS 2024c). Persistent chemical pollutants, such as PCBs, and marine litter continue to affect marine mammals and seabirds, although trends show some improvement (Pinzone *et al.* 2022; UKMS 2024d).

Since 2019, a number of measures have been implemented to address these pressures and improve conservation outcomes. Further details of these measures are provided in section 4 and include:

- Fisheries management measures, such as new byelaws in offshore MPAs to restrict bottom-towed gear and the UK ban on sandeel fishing to improve food availability for seabirds.
- Compensatory measures for offshore wind development agreed at consent stage to maintain network coherence, including actions for Sandbank and Reef habitats, and for Kittiwakes and Red-throated Divers.
- Bycatch mitigation initiatives, such as the UK Marine Wildlife Bycatch Mitigation Initiative and the Clean Catch programme, which aim to reduce incidental capture of marine mammals and seabirds.
- Noise management guidance for offshore industries to minimise underwater noise impacts on cetaceans.
- Continued international cooperation through agreements such as OSPAR and the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) to address pressures at a regional scale.

Most of the measures listed above have recently been implemented, so it is too early to fully assess the effectiveness of these measures. Regarding the fisheries measures, these are designed to reduce the pressure on species and habitats. However, given marine habitats may take several years to recover, it is difficult to determine recovery. In the latest assessments of the extent of physical disturbance to benthic habitats from fisheries with mobile bottom contacting gears, Good Environmental Status (GES) has not been met, particularly in offshore habitats (UKMS 2024b).

3.1 Conducting appropriate assessments for plans or projects affecting protected sites or species

Under the Offshore Regulations, any relevant plan or project carried out in the UK's offshore marine area (or on or in relation to an offshore marine installation) that is likely to have a significant effect on an SAC or SPA, and is not directly connected with or necessary to the management of the site, must be assessed by the relevant Competent Authority by undertaking a Habitats Regulations Assessment (HRA). A Competent Authority may only undertake or authorise the plan or project where it will not adversely affect the integrity of the site, unless there are no alternative solutions and the plan or project must proceed for Imperative Reasons of Overriding Public Interest (IROPI). In such cases, compensatory measures must be secured. In the case of offshore oil and gas activities (including gas and carbon dioxide unloading and storage activities), the obligations for the HRA is provisioned for under the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

Since 2019, IROPI derogations have been made involving five Offshore Wind (OFW) projects, occurring at least partly in the UK offshore marine area. Compensatory measures have been put in place for three OFW projects in relation to their impacts on Sandbank and Reef habitats within two SACs. Compensatory measures for Kittiwakes and Red-throated Divers have been agreed for two OFW projects in English offshore waters that impact the same offshore SPA.

4. Conservation status and the implementation of measures and their effectiveness

Conservation Status assessments were completed for habitats, marine mammals and reptiles listed in the Annexes of the Habitats Directive at the time of EU exit. This reporting round includes data collected during the 2019–2024 reporting period. Trends in status were assessed by comparing with previous reporting under the Habitats Directive, the last of which was in 2019.

Conservation status of birds had not been explicitly assessed previously under the Birds Directive. But for this offshore report, methods already established in the UK were used to assess conservation status (see below).

Noting the specific requirements of reporting under Offshore Regulation 6A, this chapter has been broadened to describe all measures implemented under the Offshore Regulations and through other instruments, which are intended to reduce pressures in the UK offshore marine area (as described above) and maintain or improve the status of offshore marine species (mammals, reptiles and birds) and habitats. The seabirds and seals occurring in the UK offshore marine area are also impacted by pressures operating on or near their breeding colonies on land and in inshore feeding areas. This report will focus on measures to reduce pressures operating offshore.

Since 2019, new measures have been implemented. Details of these and other notable achievements in the implementation of Offshore Regulations in the UK offshore marine area are summarised below and provided in more detail in the Technical Annex (Mitchell *et al.* 2026) and [Feature Reports](#).

4.1 Conservation status of benthic habitats and the implementation of measures and their effectiveness

None of the three offshore benthic habitats have achieved Favourable Conservation Status (FCS). The status of Sandbanks and Reefs is Unfavourable-bad, and due to an ongoing lack of data is the status of Submarine structures is Unknown (Table 2). Trends for two offshore marine habitats are unknown, while the third is stable. Previous reporting under the Habitats Directive did not require a separate offshore assessment. However, the range and extent of Sandbanks is unlikely to have significantly changed and is likely to be stable (see [Feature Reports](#)).

Table 21: Conservation Status of marine benthic habitats in the UK offshore marine area in 2026 compared to the previous assessment in 2019.

Feature	Status Trend of Offshore Marine Habitats	
	2019 assessment	2026 assessment
Sandbanks Slightly Covered by Seawater at All Times	Not Assessed	Unfavourable-bad Stable
Reefs	Not Assessed	Unfavourable-bad Unknown
Submarine structures made by leaking gases	Not Assessed	Unknown Unknown

Since 2019, there have been few surveys of offshore SACs designated for Sandbanks, Reefs, and Submarine structures, which has limited new evidence on status. Monitoring of offshore benthic habitats is limited by the resources available. Without a properly supported and comprehensive marine monitoring programme, the UK cannot fully meet the requirements of the Offshore Regulations with respect to monitoring the condition of nationally important habitats.

Conservation measures have been partially implemented in 70% of offshore SACs and fully implemented in 10% of offshore SACs that are designated for Sandbanks, Reefs, and Submarine structures. Offshore benthic habitats face pressures from activities operating and/or interacting with the sea floor, including fishing, OFW, submarine cable-laying, oil and gas activities, and rock dumping. Bottom-towed fishing gear has the most widespread impact footprint on benthic habitats within and outside MPAs (UKMS 2024a; OSPAR 2023a). Since 2019, byelaws have been implemented in offshore SACs in England which restrict fishing activity by limiting the use of bottom-towed gear (MMO 2022; MMO 2023). Consultations on new measures to exclude certain fishing gears from MPAs to protect benthic habitats in Scotland took place in 2024 and have since been implemented outside the reporting range of this report ([Offshore Fishing Order 2025](#)).

It is too soon to assess how effective recent fisheries management measures will be at reducing impacts on benthic habitats and how this will influence progress towards FCS. Conversely, negative impacts from other offshore industries within MPAs are likely to increase through the continued issuing of leases for offshore wind development, licences for offshore carbon dioxide storage, and [licences for oil and gas extraction](#). While the overall area impacted may be relatively small, the cumulative impact of multiple activities on protected benthic habitats may be disproportionately larger and interfere with progress towards achieving FCS, without sufficient mitigation and compensation put in place (Pidduck *et al.* 2017). Stronger links between assessment results and decision-making underpinning marine management and planning are required to ensure measures are effective in achieving FCS in the future.

4.2 Conservation status of marine mammals and reptiles and the implementation of measures and their effectiveness

The conservation status of Grey Seal is Favourable and stable, but Harbour Seal is Unfavourable but stable (Table 3). Seal populations are accurately and frequently monitored when they aggregate on land at coastal haul-out sites and at breeding colonies. Cetaceans are much more difficult to monitor, but a recent international survey has provided the necessary data to assess five species of cetacean offshore, which was not possible in 2019. Three species of dolphin are Favourable and stable (Table 3), while Harbour Porpoise is Unfavourable-inadequate but stable, despite being the only marine mammal to have offshore SACs designated for it. Coastal populations of Bottlenose Dolphin were assessed separately for this reporting round under 'Bottlenose Dolphin (coastal UK)' to recognise the difference between the offshore and coastal ecotypes. The 'Bottlenose Dolphin (UK)' assessment may also include the coastal ecotype as it is not possible to distinguish between ecotypes during the large-scale surveys used to assess populations. Minke Whale is Unfavourable-inadequate but the trend on conservation status is Unknown.

The conservation status of the single resident marine reptile species, Leatherback Turtle is Unknown due to insufficient data (Table 4).

Table 3: Conservation status of resident marine mammals in the UK offshore marine area in 2026 compared to the previous assessment in 2019.

Marine Mammal Species	Status Trend	
	2019 assessment	2026 assessment
Harbour Porpoise	Unknown	Unfavourable inadequate Stable
Bottlenose Dolphin (UK)	Unknown	Favourable Stable
Bottlenose Dolphin (coastal)	Not Assessed	Favourable Unknown
Common Dolphin	Unknown	Favourable Stable
Risso's Dolphin	Unknown	Favourable Stable
Atlantic White-sided Dolphin	Unknown	Unknown Unknown
White-beaked Dolphin	Unknown	Unknown Stable
Striped Dolphin	Unknown	Unknown Unknown
Minke Whale	Unknown	Unfavourable inadequate Unknown
Killer Whale	Unknown	Unknown Unknown
Long-finned Pilot Whale	Unknown	Unknown Unknown
Fin Whale	Unknown	Unknown Unknown
Sperm Whale	Unknown	Unknown Unknown
Humpback Whale	Unknown	Unknown Unknown
Beaked Whales (grouped)	Assessed as individual species; all Unknown	Unknown Unknown
Common Seal	Unfavourable inadequate Unknown	Unfavourable inadequate Stable
Grey Seal	Favourable Improving	Favourable stable

Table 4: Conservation status of resident marine reptiles in the UK offshore marine area in 2026 compared to the previous assessment in 2019.

Marine Reptile Species	Status Trend	
	2019 assessment	2026 assessment
Leatherback Turtle	Unknown	Unknown

The main pressures on marine mammals in the UK include fisheries bycatch, anthropogenic sound, chemical pollutants and climate change (OSPAR 2023d). Marine turtles face similar threats (Botterell *et al.* 2020; Mashkour *et al.* 2020). Since 2019, byelaws have been developed that can be used to restrict fishing activities in the five offshore SACs designated for Harbour Porpoise (MMO 2022, 2024). Work is ongoing in these SACs and in other English MPAs to determine the impact of fishing on Harbour Porpoise with aims of introducing proportionate management measures, if required.

Bycatch of Harbour Porpoise and Common Dolphin in fisheries in UK waters and adjacent waters of the northeast Atlantic exceeds internationally agreed thresholds (Tyler *et al.* 2022). Grey Seal bycatch is also high, but below the threshold. Some progress has been made since 2019, through the [UK Marine Wildlife Bycatch Mitigation Initiative](#), to better understand the impact of bycatch and how to best reduce marine mammal bycatch. Moving forward, Regional Bycatch Risk Prioritisation Frameworks will deliver a more coordinated approach to

monitoring and minimising bycatch of marine mammals and turtles and other sensitive marine species.

The waters around the UK are noisy and have been getting noisier, according to assessments undertaken in the North Sea between 2015 and 2021 (UKMS 2024c). Underwater noise from offshore industries and shipping can have serious impacts on the health of marine mammals, which rely on sound for navigation, foraging and communication (Merchant *et al.* 2022). Since 2019, [multiple pieces of guidance for industry](#) have been developed by Defra and the SNCBs to help industries reduce marine noise and manage their activities so that their impact on marine mammals is minimal.

The health of marine mammals is also threatened by presence of persistent chemicals, such as PCBs (e.g. Jepson *et al.* 2016; Megson *et al.* 2022; Minoia *et al.* 2023; Williams *et al.* 2023). Recent studies show PCBs are present in most necropsied marine mammal carcasses that are found stranded on UK beaches (Pinzone *et al.* 2022; Williams *et al.* 2023). However, levels of PCBs are lower than in the 1970s and 1980s, but still at levels which may impact on the reproductive function of individual animals (Pinzone *et al.* 2022).

4.3 Maintaining populations of all species of naturally occurring birds and their habitat

The Offshore Regulations place a duty on the competent authority to secure compliance with the Birds Directive, which requires the maintenance of populations of all species of naturally occurring birds in the wild at a level which corresponds to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements. In the UK offshore marine area, it is impossible to accurately estimate the number of seabirds at sea at any one time, let alone determine levels at which they should be present as specified above. Therefore, the status of populations of marine bird species using the UK offshore marine area has been taken from data collected mostly at breeding colonies. FCS has previously never been assessed for birds under the Birds Directive. For this report, alternative methods that are already used in the UK to assess conservation status in bird populations have been used: the UK Birds of Conservation Concern (BoCC) and IUCN Red List assessment of birds in Britain (Stanbury *et al.* 2021, Stanbury *et al.* 2024).

The assessment of UK BoCC uses standardised criteria to allocate species to Red, Amber, or Green lists depending on their level of conservation concern. BoCC criteria include population size, abundance trends, distributional range, changes in distribution, and international importance. The IUCN Red List assessment for birds in Great Britain uses well-established, internationally recognised, and standardised criteria to assess extinction risk. The IUCN criteria include species rarity, range restriction and rate of decline (Stanbury *et al.* 2024).

Status has been assessed for all species of migratory marine bird species that regularly occur in the UK's offshore marine area (Table 5a, 5b). These assessments clearly show that the populations of offshore marine bird species are not being maintained. Half of the 16 UK populations (15 species) assessed by BoCC are of greatest conservation concern. Furthermore, 12 out of 16 GB populations assessed using IUCN criteria are considered threatened with extinction (i.e. 10 species).

All species and populations were assessed against a baseline (Burnell *et al.* 2023) from before the outbreak of High Pathogenicity Avian Influenza (HPAI) that resulted in the deaths of thousands of seabirds in the UK during 2021–2023. However, the assessments were then updated for several species to account for known HPAI impacts (Tremlett *et al.* 2024). Despite the deaths of over 16,000 Northern Gannets and large numbers of gulls, terns and

auks, the HPAI outbreak does not appear to have affected the status of these species. However, HPAI did significantly impact the status of Great Skua (Table 5a), which mostly breed in Scotland and experienced a 73% reduction in breeding numbers during 2021–23 (Tremlett *et al.* 2024).

Table 5a: Conservation status of breeding marine birds as assessed by Birds of Conservation Concern (BoCC) and IUCN GB Red List. For Red list Threatened categories (Vulnerable, Endangered, Critically Endangered) are shaded red, with Least Concern shaded in green. Change in status and extinction risk between successive assessments is given as the number of categories, where 0=no change, positive values denote improvement and negative values denote a decline in BoCC status or an increase in extinction risk.

Common name of Breeding Birds	BoCC 5a UK status	BoCC Status Change since BoCC4 UK	IUCN GB2 Extinction Risk	Extinction Risk Change since GB1
Atlantic Puffin	R	0	CR	-4
Black-legged Kittiwake	R	0	EN	1
Common Guillemot	A	0	VU	-2
European Storm-Petrel [Note 1]	A	0	LC	0
Fulmar	A	0	CR	-4
Great Black-backed Gull	R	-1	CR	-4
Great Skua	R	-1	VU	-2
Herring Gull	R	0	EN	NA [Note 2]
Leach's Storm-Petrel [Note 1]	R	-1	CR	-4
Lesser Black-backed Gull	A	0	LC	NA
Manx Shearwater	A	0	LC	0
Northern Gannet	A	0	LC	0
Arctic Skua	R	0	CR	0
Razorbill	A	0	VU	-2

Note 1: Species was listed in Annex I of the Birds Directive at the point of EU Exit.

Note 2: No assessment possible (was Data Deficient in first assessment).

Table 5b: Conservation status of wintering marine birds as assessed by Birds of Conservation Concern (BoCC) and IUCN GB Red List. For Red list Threatened categories (Vulnerable, Endangered, Critically Endangered) are shaded red, with Least Concern shaded in green. Change in status and extinction risk between successive assessments is given as the number of categories, where 0=no change, positive values denote improvement and negative values denote a decline in BoCC status or an increase in extinction risk.

Common name of Wintering Birds	BoCC5 UK status	BoCC Status Change since BoCC4 UK	IUCN GB2 Extinction Risk	Extinction Risk Change since GB1
Great Black-backed Gull	NA	NA	EN	0
Herring Gull	R	0	EN	0
Lesser Black-backed Gull	NA	NA	NA	NA
Little Auk	G	0	Data Deficient	NA

With regards to preserving and maintaining habitats for marine birds, some distinct areas of importance have been identified and designated as SPAs.

In the UK, there are currently 125 SPAs with marine components in the inshore and offshore UK marine areas, compared to 112 in 2019. There are eight SPAs that are at least partly in the UK offshore area. Three were designated in 2021 in Scottish inshore/offshore waters: Outer Firth of Forth and St Andrews Bay Complex, Seas off Foula, Seas off St Kilda. These three SPAs, along with an existing inshore/offshore SPA in Wales are situated in waters close to large breeding colonies of seabirds and are designated for mainly offshore species of seabird listed in Tables 5a and 5b. There is one SPA, the Irish Sea Front SPA, which is entirely offshore and designated in 2017 to protect aggregations of Manx Shearwater that feed there. Together, the eight SPAs, described above, cover 0.01% of the UK's offshore marine area.

Conservation Objectives and Advice on Operations have been published for all offshore MPAs. For most SPAs, measures have been partially implemented through relevant plans and projects subject to HRA, but not all unregulated activities have been assessed and/or addressed. Three English inshore/offshore SPAs are already covered under the byelaws of the relevant Inshore Fisheries and Conservation Authority (IFCA) and the offshore areas are being assessed by the Marine Management Organisation (MMO) who will consider whether any management measures are needed to address the impacts of fishing on highly mobile species.

However, the majority of marine SPAs are inshore and associated with certain seabed habitats on which birds can dive and feed. But in deeper offshore areas, prey on the seabed is usually out of reach. Therefore, the UK offshore marine area, where seabirds feed on or near the surface or below within the water column, effectively represents to them a single large habitat.

The greatest pressure on seabirds is from climate change. Rising sea temperatures in the northeast Atlantic have already significantly affected the marine food web and reduced the amount of prey available to seabirds (OSPAR 2023c; Mitchell *et al.* 2020). Climate change will also have more direct effects on the physiology and distribution of seabirds as this century progresses (Russell *et al.* 2015). Measures in the offshore need to focus on ensuring there are sufficient prey available for seabirds and to reduce and mitigate other impacts on

seabirds from pressures operating offshore to build resilience to the effects of climate change.

Since 2019, new fishing restrictions in MPAs are expected to reduce disturbance to the seabed. The recent UK ban on sandeel fishing in March 2024, aims to make more sandeels available to seabirds, the effects of which may become evident during the next reporting period (Natural England, Cefas & JNCC 2023). Since 2019, there has been progress in strengthening the [evidence base for seabird bycatch](#) to better understand the extent and impact of seabird bycatch in UK fisheries. However, uncertainty still exists because of unrepresentative monitoring of the UK fleet (Kober *et al.* 2024). Best estimates indicate a few thousand birds are caught each year, with Fulmar the most likely offshore species to be affected at the population scale (Northridge *et al.* 2023; Kingston *et al.* 2023). The [Marine Wildlife Bycatch Mitigation Initiative](#) and others such as [Clean Catch](#) and the new seabird bycatch action plan in England are expected to help to expand monitoring and mitigation of bycatch during the next reporting period.

Strategic approaches to the conservation and recovery of seabird populations have been developed through the English Seabird Conservation and Recovery Pathway (ESCaRP, Banks *et al.* 2024). However, Seabirds in the UK are not declining in isolation – their wider populations in the northeast Atlantic are in decline also (OSPAR 2023c). The UK has played a proactive role in large-scale assessments of marine birds (e.g. OSPAR 2023d) and the development of an [OSPAR Regional Action Plan for marine birds](#).

5. Conclusions

None of the three offshore benthic (seabed) habitats of national importance have achieved Favourable Conservation Status (FCS). This is despite almost 36% of the UK offshore area being designated as MPA's including SACs to protect these habitats. Disturbance and loss of habitat caused by fishing and cumulative impacts from multiple other offshore activities are the main barrier to achieving FCS. The recent expansion of measures to restrict fishing activities in SACs and other Marine Protected Areas (MPAs) is a major step to more effectively managing MPAs and recovering degraded benthic habitats. The effectiveness of these measures may take several reporting cycles to be fully evident. However, monitoring of benthic habitats in the UK offshore marine area is limited by resources. Without a comprehensive marine monitoring programme, the UK cannot fully meet the requirements of the Offshore Regulations with respect to monitoring the condition of offshore habitats and the effectiveness of measures to protect them.

Monitoring of whales and dolphins (cetaceans) is also challenging because of how mobile and highly dispersed they are. However the latest decadal survey has recently provided the necessary data to assess five species of cetaceans, which was not possible in 2019. While three species of dolphin and Grey Seal have achieved FCS, Harbour Seal, Minke Whale and Harbour Porpoise are not in FCS. Harbour Porpoise is the only species of marine mammal with offshore SACs designated to protect it. Reasons for poor status are unclear but may be due to declines in food supply or other pressures such as bycatch. Too many Harbour Porpoise and Common Dolphin are currently accidentally caught in fisheries as bycatch, but improved frameworks for bycatch monitoring and mitigation have been put in place. Guidance has been issued to industry to help reduce health impacts of underwater noise pollution and the number of licences issued for seal culling has declined significantly since 2021.

The assessments in this report clearly show that populations of offshore seabird species are not being 'maintained'. Half the populations assessed are of greatest conservation concern and 10 out of 14 species currently breeding in the UK were 'threatened' with extinction'. The greatest pressure on seabirds is from climate change, which has impacts across both their terrestrial and marine habitats. A strategic approach to seabird conservation has been developed in England and with international neighbours through the OSPAR Convention. This approach aims to build resilience of seabird species and their populations by addressing other pressures on them. This means reducing pressure from fisheries, including a UK ban on sandeel fishing, improved monitoring and mitigation of seabird bycatch and reducing physical disturbance of the seabed, which affects the habitats of the birds' prey.

The UK shares its marine habitats and species with other countries in the northeast Atlantic. The UK has strong relationships with its neighbours through several MEAs and has been collaborating and sharing information and data. This includes several large-scale assessments through OSPAR, which have fed directly into the UK Marine Strategy.

References

Banks, A. Blyth-Skyme, V. Elliott, J. Hodgkiss, R. Jones, R. Kober, K. Rogerson, K. Smibert, L. Walker, P. & Ziemann, J. 2024. English Seabird Conservation and Recovery Pathway. *Natural England Technical Information Note*. TIN 218

Boisseau, O., McGarry, T., Stephenson, S., Compton, R., Cucknell, A.C., Ryan, C., McLanaghan, R. & Moscrop, A. 2021. Minke Whales *Balaenoptera acutorostrata* avoid a 15 kHz acoustic deterrent device (ADD). *Marine Ecology Progress Series*, **667**, 191-206

Botterell, Z.L., Penrose, R., Witt, M.J. & Godley, B.J. 2020. Long-term insights into marine turtle sightings, strandings and captures around the UK and Ireland (1910–2018). *Journal of the Marine Biological Association of the United Kingdom*, **100**(6), pp.869-877.

Burnell, D., Perkins, A.J., Newton, S.F., Bolton, M., Tierney, T.D. & Dunn, T.E. 2023. Seabirds Count: A census of breeding seabirds in Britain and Ireland (2015–2021). *Cerdanyola del Vallès: Lynx Nature Books*.

Crown Estate. 2023. Offshore Wind Project Listings. Available from: <https://www.datocms-assets.com/136653/1752839672-owprojectlisting-june2025.pdf>

David, L., Arcangeli, A., Donovan, G., Holcer, D., Lanfredi, C., Airoldi, S., Dhermain, F., Fossi, C., Labach, H., Natoli, A., Pavan, G. & Rosso, M. 2021. Progress report regarding Risso dolphin conservation management plan (CMP) in ACCOBAMS area. Available from: https://accobams.org/wp-content/uploads/2021/09/SC14.Doc16_Progress-Report-CMP-Risso.pdf [Accessed 07 Nov 2024]

Feyrer, L.J., Stanistreet, J.E. & Moors-Murphy, H.B. 2024. Navigating the unknown: assessing anthropogenic threats to Beaked Whales, family Ziphiidae. *Royal Society Open Science*, **11**(4), 240058.

Hin, V., Harwood, J. & de Roos, A.M. 2021. Density dependence can obscure nonlethal effects of disturbance on life history of medium-sized cetaceans. *PLoS One*, **16**(6), 0252677.

Hin, V., De Roos, A.M., Benoit-Bird, K.J., Claridge, D.E., DiMarzio, N., Durban, J.W., Falcone, E.A., Jacobson, E.K., Jones-Todd, C.M., Pirotta, E. & Schorr, G.S. 2023. Using individual-based bioenergetic models to predict the aggregate effects of disturbance on populations: A case study with Beaked Whales and Navy sonar. *PLoS one*, **18**(8), 0290819.

Jepson, P.D., Deaville, R., Barber, J.L., Aguilar, À., Borrell, A., Murphy, S., Barry, J., Brownlow, A., Barnett, J., Berrow, S. & Cunningham, A.A. 2016. PCB pollution continues to impact populations of orcas and other dolphins in European waters. *Scientific reports*, **6**(1), pp.1-17.

Mitchell, I., Kenworthy, J., Baulch, V., Cook, H., Martin, E. & Hardy, S. (2026) Technical Annex to Offshore Regulations General Implementation Report for the Reporting period 2019-2024 - UK Offshore Marine Area. *JNCC Report 812B*. JNCC, Peterborough, ISSN 0963-8091.
<https://hub.jncc.gov.uk/assets/e858173d-a762-4fbe-9e28-83a06e91fafe>

Kingston, A., Thomas, L. & Northridge, S. 2021. Annual report on the implementation of Council Regulation (EC) No 812/2004 during 2019. *Report to Defra and the European Commission*. Available:
http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf

Kober, K., Clarke, E., Kingston, A., Ribeiro Santos, A., Balestri, E., Coull, K., Anderson, O. & Parsons, M. 2024. Gap analysis on the monitoring of marine bird bycatch by British vessels – Report to the Department for Environment, Food & Rural Affairs. *JNCC Report 761*. JNCC, Peterborough, ISSN 0963-8091. <https://hub.jncc.gov.uk/assets/419e4128-c099-4be3-ae3e-35b313a59561>

Mashkour, N., Jones, K., Kophamel, S., Hipolito, T., Ahasan, S., Walker, G., Jakob-Hoff, R., Whittaker, M., Hamann, M., Bell, I. & Elliman, J. 2020. Disease risk analysis in sea turtles: A baseline study to inform conservation efforts. *PloS one*, **15**(10), p.e0230760.

Megson, D., Brown, T., Jones, G.R., Robson, M., Johnson, G.W., Tiktak, G.P., Sandau, C.D. & Reiner, E.J. 2022. Polychlorinated biphenyl (PCB) concentrations and profiles in marine mammals from the North Atlantic Ocean. *Chemosphere*, **288**, p.132639.

Merchant, N.D., Kinneging, N. & Liebschner, A. 2022. Risk of Impact from Anthropogenic Impulsive Sound. In: OSPAR, 2023: The 2023 Quality Status Report for the Northeast Atlantic. *OSPAR Commission, London*. Available from: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/indicator-assessments/risk-impact-anthropogenic-sound>

Minoia, L., Consales, G., Mazzariol, S., Mancusi, C., Terracciano, G., Ceciarini, I., Capanni, F., Neri, A., D'Agostino, A. & Marsili, L. 2023. Preliminary assessment of persistent organic pollutants (POPs) in tissues of Risso's Dolphin (*Grampus griseus*) specimens stranded along the Italian coasts. *Marine Pollution Bulletin*, **186**, p.114470.

Mitchell, I., Daunt, F., Frederiksen, M. & Wade, K. 2020. Impacts of climate change on seabirds, relevant to the coastal and marine environment around the UK. *MCCIP Science Review 2020*, 382–399.

Moore, P. & Smale, D. 2020. Impacts of climate change on shallow and shelf subtidal habitats relevant to the coastal and marine environment around the UK. *MCCIP Science Review 2020*, 272–292

MMO. 2022. Government uses Brexit freedoms to protect our seas [online]. Available from: <https://www.gov.uk/government/news/government-uses-brexit-freedoms-to-protect-our-seas>

MMO. 2023. Marine Protected Areas Bottom Towed Fishing Gear Byelaw 2023. Available from: <https://www.gov.uk/government/publications/marine-protected-areas-bottom-towed-fishing-gear-byelaw-2023>

Natural England, Cefas & JNCC. 2023. What are the ecosystem risks and benefits of full prohibition of industrial Sandeel fishing in the UK waters of the North Sea (ICES Area IV)? Defra request for advice. Available from: https://assets.publishing.service.gov.uk/media/64070d1ae90e0740d3cd6f85/What_are_the_ecosystem_risks_and_benefits_of_full_prohibition_of_industrial_Sandeel_fishing_in_the_UK_waters_of_the_North_Sea_ICES_Area_IV_.pdf

Northridge, S., Kingston, A. & Coram, A. (2023) Regional seabird bycatch hotspot analysis JNCC Report 726. *JNCC, Peterborough*, ISSN 0963-8091 <https://hub.jncc.gov.uk/assets/a00403c7-6f56-4f38-8b57-b2ab1859c564>

OSPAR. 2023a. Benthic Habitats Thematic Assessment. In: OSPAR, 2023: Quality Status Report 2023. *OSPAR Commission, London*. Available from: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/thematic-assessments/benthic-habitats/>

OSPAR. 2023b. *Climate Change Thematic Assessment*. In: OSPAR, 2023: Quality Status Report 2023. OSPAR Commission, London. Available at: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/thematic-assessments/climate-change/>

OSPAR. 2023c. Marine Birds Thematic Assessment. In: OSPAR, 2023: Quality Status Report 2023. OSPAR Commission, London. Available from: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/thematic-assessments/marine-birds/>

OSPAR. 2023d. Marine Mammals Thematic Assessment. In: OSPAR, 2023: Quality Status Report 2023. OSPAR Commission, London. Available at: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/thematic-assessments/marine-mammals/>

Pearce-Higgins, J.W., Davies, J.G. & Humphreys, E.M. (2021). Species and habitat climate change adaptation options for seabirds within the INTERREG VA area. Report to Agri-Food and Biosciences Institute and Marine Scotland Science as part of the Marine Protected Area Management and Monitoring (MarPAMM) project.

Pidduck, E., Jones, R., Daglish, P., Farley, A., Morley, N., Page, A. & Soubies, H. 2017. Identifying the possible impacts of rock dump from oil and gas decommissioning on Annex I mobile sandbanks. *JNCC Report 603*. JNCC, Peterborough.
<https://jncc.gov.uk/resources/54e00371-b431-43fa-96d5-44c45af63414>

Pinzone, M., Parmentier, K., Siebert, U., Gilles, A., Authier, M., Brownlow, A., Caurant, F., Das, K., Galatius, A., Geelhoed, S., Hernández Sánchez, M.T., Mendez-Fernandez, P., Murphy, S., Persson, S., Roos, A., van den HeuvelGreve, M. & Vinas, L. 2022. Pilot Assessment of Status and Trends of persistent chemicals in marine mammals. In: OSPAR, 2023: The 2023 Quality Status Report for the North-East Atlantic. OSPAR Commission, London. Available from: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/indicator-assessments/pcb-marine-mammals-pilot> [Accessed 07 Nov 2024]

Reverberi, M. 2023. The non-silent world: acoustic responses of White-beaked Dolphins (*Lagenorhynchus albirostris*) to changes in maritime traffic: a case study during the covid-19 anthropause in Skjálfandi Bay, Iceland (Doctoral dissertation). Available from: https://skemman.is/bitstream/1946/45856/1/CMMThesis_MathieuReverberi.pdf [Accessed 07 Nov 2024]

Russell, D.J., Wanless, S., Collingham, Y.C., Huntley, B. & Hamer, K.C., 2015. Predicting future European breeding distributions of British seabird species under climate change and unlimited/no dispersal scenarios. *Diversity*, **7**(4), 342-359.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N. Noble, D.G. & Win, I. 2021. 'The status of our bird populations: The fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain'. *British Birds*, **114**, 723–747.

Stanbury, A., Burns, F., Aebischer, N., Burnell, D., Baker, H., Balmer, D., Brown, A., Dunn, T., Lindley, P., Murphy, M., Noble, D., Owens, R. & Quinn L. 2024. The status of UK's breeding seabirds: an addendum to the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, **117**, 471-487.

Stone, C., Hall, K., Mendes, S. & Tasker, M. 2017. The effects of seismic operations in UK waters: analysis of Marine Mammal Observer data. *Journal of Cetacean Research and Management*, **16**, 71-85.

Taylor, N., Authier, M., Banga, R., Genu, M. & Gilles, A. 2022. Marine mammal by-catch [online]. OSPAR, 2023: the 2023 quality status report for the Northeast Atlantic. Available from: <https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/indicator-assessments/marine-mammal-bycatch/> [Accessed 07 Nov 2024]

Trigg, L.E., Chen, F., Shapiro, G.I., Ingram, S.N., Vincent, C., Thompson, D., Russell, D.J., Carter, M.I. & Embling, C.B. 2020. Predicting the exposure of diving grey seals to shipping noise. *The Journal of the Acoustical Society of America*, **148**(2), 1014-1029.

Tremlett, C. J., Cleasby, I. R., Bolton, M. & Wilson, L. J. 2024. Declines in UK breeding populations of seabird species of conservation concern following the outbreak of high pathogenicity avian influenza (HPAI) in 2021–2022. *Bird Study*, **71**(4), 293–310. <https://doi.org/10.1080/00063657.2024.2438641>

UKMS. 2024a. Extent of Physical Disturbance to Benthic Habitats: Fisheries with mobile bottom-contacting gears. UK Marine Strategy Benthic Habitats 2024 assessment. Available from: <https://moat.cefas.co.uk/biodiversity-food-webs-and-marine-protected-areas/benthic-habitats/extent-of-physical-disturbance-to-benthic-habitats-fishing-mobile-gears/>

UKMS. 2024b. Benthic habitats. The extent to which Good Environmental Status has been achieved. Available from: <https://moat.cefas.co.uk/biodiversity-food-webs-and-marine-protected-areas/benthic-habitats/>

UKMS. 2024c. Underwater noise. The extent to which Good Environmental Status has been achieved. Available from: <https://moat.cefas.co.uk/pressures-from-human-activities/underwater-noise/>

UKMS. 2024d. Marine Litter. The extent to which Good Environmental Status has been achieved. Available from: <https://moat.cefas.co.uk/pressures-from-human-activities/marine-litter>

Williams, R.S., Brownlow, A., Baillie, A., Barber, J.L., Barnett, J., Davison, N.J., Deaville, R., Ten Doeschate, M., Murphy, S., Penrose, R. & Perkins, M. 2023. Spatiotemporal trends spanning three decades show toxic levels of chemical contaminants in marine mammals. *Environmental Science & Technology*, **57**(49), 20736-20749.

Glossary

Term	Definition
Annex I bird species	Species listed in Annex I of the Birds Directive at the point of EU Exit and transposed to the Habitats Regulations and Offshore Regulations.
Annex I habitats	Habitats listed in Annex I of the Habitats Directive at the point of EU Exit and transposed to the Habitats Regulations and Offshore Regulations.
Annex II, IV, and V species	Species (not including birds) listed in Annex II and European protected species listed in IV and V of the Habitats Directive at the point of EU Exit and transposed to the Habitats Regulations and Offshore Regulations: Annex II species requiring designation of Special Areas of Conservation, Annex IV species in need of strict protection, and Annex V species in which member countries may decide for themselves how to manage the population.
Benthic habitats	Pertaining to the seafloor environment. Benthic habitats include communities of seaweeds, plants and animals living on or within the seabed
Birds Directive	Wild Birds Directive (2009/147/EC)
BoCC	Birds of Conservation Concern
Byelaw	Local laws made by a local council or public body. In this case, refers to fishing byelaws developed by the Marine Management Organisation
Cetaceans	Whales, dolphins and porpoises
Ecosystem	A community of biological organisms interacting with their physical habitat
Ecosystem Services	The supporting, regulating, provisioning and cultural benefits humans receive from nature
FCS	Favourable Conservation Status. The overall conservation status based on assessment of feature parameters, trends and condition.
Feature	A specific species or habitat reported on in the Habitats Regulations reporting
Habitats Directive	Habitats Directive (92/43/EEC)
Habitats Regulations	Collective term for: <ul style="list-style-type: none"> the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters), the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland, the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Term	Definition
IFCA	Inshore Fisheries and Conservation Authority
IROPI	Imperative Reasons of Overriding Public Interest
IUCN	International Union for Conservation of Nature
Marine Birds	All relevant species of bird listed in Annex I of the Birds Directive at the point of EU Exit and all other regularly occurring migratory species in the UK offshore marine area.
Marine Mammals	Seals and cetaceans
Methane-Derived Authigenic Carbonate	Rock-like deposits that form from microbial activity where methane is present in the seabed (often around seeps).
MMO	Marine Management Organisation
MPAs	Marine Protected Areas
Offshore Regulations	The Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)
OFW	Offshore Wind
OSPAR	The Convention for the protection of the Marine Environment of the north-east Atlantic
PCBs	Polychlorinated Biphenyls, a highly toxic man-made chemical compound
Resident	Species (of marine mammal) that regularly occur in UK waters, either all year round, or seasonally
SACs	Special Areas of Conservation for Annex I habitats and Annex II species (under Habitats Regulations and Offshore Regulations)
SPAs	Special Protection Areas for Annex I birds and other regularly occurring migratory species (under Habitats Regulations and Offshore Regulations)
UK offshore marine area	The area beyond 12 nautical miles encompassing the UK's Exclusive Economic Zone and the UK continental shelf. This includes: <ul style="list-style-type: none"> any part of the seabed and subsoil situated in any area designated under section 1(7) of the Continental Shelf Act 1964 any part of the waters within British fishery limits (except the internal waters of, and the territorial sea adjacent to, the United Kingdom, the Channel Islands and the Isle of Man)
Vagrant	Mobile species which appears infrequently or unpredictably in UK waters