



Llywodraeth Cymru  
Welsh Government

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# Welsh Government Consultation Document

Welsh Seabird Conservation Strategy

Date of issue: 18 December 2024

Action required: Responses by 14 February  
2025

Mae'r ddogfen hon ar gael yn Gymraeg hefyd / This document is also available in Welsh  
Rydym yn croesawu gohebiaeth a galwadau ffôn yn Gymraeg / We welcome correspondence and telephone calls in Welsh

## Overview

This Welsh Seabird Conservation Strategy focuses on the protection, conservation and resilience of seabirds in Wales.

The consultation document describes the functions of the strategy and timescales for implementation and review. The strategy will set out the process for identifying recommendations based on vulnerability assessments produced using best available data.

Please note the Welsh Seabird Conservation Strategy was produced in Summer 2024 and has utilised the best available data and statistics at the time of writing.

## How to respond

The closing date for responses is 14 February 2025 and you can respond in any of the following ways:

**Email:** Please complete the consultation response form and send it to:

[MarineEcosystemsAndBiodiversity@gov.wales](mailto:MarineEcosystemsAndBiodiversity@gov.wales) (please include 'Welsh Seabird Conservation Strategy') in the subject line.

**Post:** Please complete the consultation response form and send it to:

Marine and Biodiversity Division  
Welsh Government  
Rhodfa Padarn  
Llanbadarn Fawr  
Aberystwyth  
Ceredigion  
SY23 3UR

## Further information and related documents

Large print, Braille and alternative language versions of this document are available on request.

## Contact details

For further information:

Marine and Biodiversity Division  
Welsh Government  
Rhodfa Padarn  
Llanbadarn Fawr  
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Email: [MarineEcosystemsAndBiodiversity@gov.wales](mailto:MarineEcosystemsAndBiodiversity@gov.wales)

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Welsh Ministers have statutory powers they will rely on to process this personal data which will enable them to make informed decisions about how they exercise their public functions. The lawful basis for processing information in this data collection exercise is our public task; that is, exercising our official authority to undertake the core role and functions of the Welsh Government. (Art 6(1)(e))

Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about or planning future consultations. In the case of joint consultations this may also include other public authorities. Where the Welsh Government undertakes further analysis of consultation responses then this work may be commissioned to be carried out by an accredited third party (e.g. a research organisation or a consultancy company). Any such work will only be undertaken under contract. Welsh Government's standard terms and conditions for such contracts set out strict requirements for the processing and safekeeping of personal data.

In order to show that the consultation was carried out properly, the Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. If you do not want your name or address published, please tell us this in writing when you send your response. We will then redact them before publishing.

You should also be aware of our responsibilities under Freedom of Information legislation and that the Welsh Government may be under a legal obligation to disclose some information.

If your details are published as part of the consultation response then these published reports will be retained indefinitely. Any of your data held otherwise by Welsh Government will be kept for no more than three years.

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- for (in certain circumstances) your data to be 'erased'
- to (in certain circumstances) data portability
- to lodge a complaint with the Information Commissioner's Office (ICO) who is our independent regulator for data protection

For further details about the information the Welsh Government holds and its use, or if you want to exercise your rights under the UK GDPR, please see contact details below:

Data Protection Officer:  
Welsh Government  
Cathays Park  
CARDIFF  
CF10 3NQ  
e-mail: [dataprotectionofficer@gov.wales](mailto:dataprotectionofficer@gov.wales)

The contact details for the Information  
Commissioner's Office are:

Wycliffe House  
Water Lane  
Wilmslow  
Cheshire SK9 5AF  
Tel: 0303 123 1113  
Website: <https://ico.org.uk/>

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## **Ministerial Foreword**

Wales is home to nationally and internationally important species of seabird, ranging from the iconic Atlantic puffin, through to gannets and Manx shearwater.

Unfortunately, seabird populations across the world have been impacted by pressures such as Highly Pathogenic Avian Influenza, habitat loss and competing usage of our seas. Seabirds rely on Wales for ample nesting sites to stimulate reproduction coupled with plentiful feeding opportunities and it's important we as a Government are responsible for ensuring this can be provided. Without this, we risk breaking an important part of the life cycle of these species which not only impacts Wales, but the world as a whole.

Culturally, Wales is often recognised for its iconic population of Atlantic puffin which are resident on Skomer Island and is a significant draw for tourism which positively impacts the Welsh economy. I want to take a responsible approach and act now to ensure we can preserve and enhance our populations of seabirds, improving resilience for generations to come. We need to understand and acknowledge the pressures facing seabirds and how we can bring about meaningful measures to mitigate it. I believe everyone has a role to play here to ensure our treasured seabirds can remain resilient.

The Welsh Seabird Conservation Strategy is the first of its kind in Wales and has been developed in partnership with key stakeholders, drawing expertise from across the UK. This strategy will give direction on how evidenced-based recommendations will be identified leading to responsible action being taken to enhance resilience of our seabird populations.

I believe the Welsh Seabird Conservation Strategy will support the aims of the Well-being of Future Generations (Wales) Act 2015 showing in particular our approach to being resilient, prosperous and globally responsible. Taking this approach and working collaboratively with partners to improve seabird populations will ensure we become a more responsible and exemplar nation.



**Huw Irranca-Davies MS, Deputy First Minister and Cabinet Secretary for Climate Change and Rural Affairs**

## Acknowledgements

Welsh Government wishes to acknowledge the following organisations whom have contributed to the development of this strategy.



Natural Resources Wales



Joint Nature Conservation Committee



British Trust for Ornithology (Cymru)

And

Royal Society for the Protection of Birds (RSPB Cymru)

## Vision

In 2019, the Welsh National Marine Plan was published, describing its vision of “...clean, healthy, safe, productive and biologically diverse...” Welsh seas. It lays out how a sustainable development of marine areas in Wales is to be approached whilst ensuring the protection, conservation, restoration and enhancement of marine biodiversity, halting and reversing its decline, and maintaining and enhancing the resilience of marine ecosystems to (Welsh Government, 2019).

This Welsh Seabird Conservation Strategy (“this Strategy”) focuses on the protection, conservation and restoration of seabirds in Wales. It aims to achieve this by providing a framework for a continuous assessment of the status of seabirds and of ongoing conservation action in Wales, by providing high-level recommendations where conservation action needs to be improved or adjusted, and by enabling and safeguarding deliverable conservation actions through collaboration with stakeholders.

## Introduction

The UK hosts globally significant breeding populations of seabirds. With its diverse coastal habitats it provides ideal nesting sites for over 4.6 million pairs of seabirds from 25 species (Burnell et al., 2023). In addition, the UK is also of great importance for wintering waterbirds, offering rich food resources and relatively mild winter conditions at a variety of wetlands, estuaries, and coastal areas, serving as crucial refuges during the colder months for feeding and roosting waterbirds. The presence of significant populations of both breeding seabirds and wintering waterbirds underscores the UK's role in supporting global avian biodiversity and highlights the need for ongoing conservation efforts to protect these critical environments and avian populations from habitat loss and multiple human pressures. Wales plays a crucial role in conserving British seabirds and waterbirds, offering essential breeding and wintering habitats.

Grassholm Island, off Pembrokeshire's coast, is home to the UK's third largest gannetry, with over 36,000 pairs of breeding gannets *Morus bassanus*. Skomer and Skokholm islands support the largest concentration of breeding seabirds in England and Wales. The Skomer, Skokholm and Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro Special Protection Area (SPA) host the world's largest breeding colony of Manx shearwater *Puffinus puffinus* (over 450,000 pairs), one of Britain's largest colonies of lesser black-backed gull *Larus fuscus* (over 8,300 occupied sites), and significant breeding numbers of other seabirds, including razorbill *Alca torda*, black-legged kittiwake *Rissa tridactyla*, Atlantic puffin *Fratercula arctica*, and common guillemot *Uria aalge*. The Anglesey Terns / Morwenoliaid Ynys Môn SPA, with nearly 4,000 pairs, is the largest Arctic tern *Sterna paradisaea* colony in the UK and the little tern colony *Sternula albifrons* at Gronant, northeast Wales, is the second largest in the UK (Burnell et al., 2023).

In winter, the shallow inlets of Carmarthen Bay and Liverpool Bay are internationally important for their wintering common scoter *Melanitta nigra*, whilst Liverpool Bay and Cardigan Bay hold internationally important numbers of wintering red-throated diver *Gavia stellata*. These inlets are also important wintering habitat for great crested-grebe *Podiceps cristatus* and red-necked grebe *Podiceps grisegena*. Wales also has important estuaries with large numbers of wintering waterbirds, such as The Dee Estuary, The Burry Inlet and the Severn Estuary.

Wales is also an important stronghold for several species suffering from food shortages at their colonies on the North Sea coasts, such as terns, auks and kittiwakes. These shortages, believed to be a result of climate change, currently do not seem to have affected most Welsh populations, but it is possible that they might do in the future.

Moreover, marine habitats hold deep cultural importance, symbolizing Wales' natural heritage and contributing significantly to coastal communities' economies and livelihoods, reflecting the profound connection between the people of Wales and their coastal environment.

For ease, the term 'seabirds' is used throughout this Strategy in a wider sense, referring to petrels and shearwaters (Procellariiformes), gannets and cormorants (Suliformes), gulls, terns and auks (Charadriiformes), but also to duck (Anseriformes) and diver species (Gaviiformes).

### *Population trends*

Across the Northeast Atlantic, seabirds are in a poor status and populations continue to face significant threats, impacting population dynamics of many species (OSPAR Intermediate Assessment, OSPAR, 2017; Burton *et al.*, 2023). In OSPAR's Celtic Seas region, covering all marine areas on the UK west coast, seabird populations become less resilient to population declines (based on OSPAR's relative breeding- and non-breeding abundance indicators, Dierschke *et al.*, 2022). While these alarming trends take place on the wider spatial scale of the Northeast Atlantic and the UK, the picture emerging in Wales is noticeably different for some species.

Of the 29 seabird species covered by the WSCS where a trend could be determined between breeding numbers at the previous census (1998-2002) and the most recent census (2015-2021), 60% of these species increased in Wales, the largest observed were Arctic tern and little tern (133% and 128%, respectively, Burnell *et al.*, 2023). Just under 40% of species showed a decrease in breeding numbers, with species most affected being Roseate tern *Sterna dougallii*, lesser black-backed gull and black-legged kittiwake (-50%, -45% and -34%, respectively, Table 1, NRW, 2021; Burnell *et al.*, 2023)). However, the most recent census was completed before the 2021 outbreak of Highly Pathogenic Avian Influenza ("HPAI") therefore, current estimates for some species are likely to be lower than indicated by the census.

When comparing the changes in breeding numbers at the wider scale with those in Wales, notable differences are found for great black-backed gull *Larus marinus*, little tern, Arctic tern and Atlantic puffin which show significant decreases across Britain



and Ireland (-43%, -15%, -35% and -24%, respectively, Table 1) while increasingly in Wales, and for Roseate tern which increases strongly on the wider scale (152%) while decreasing from 2 pairs to 1 pair in Wales (Burnell *et al.*, 2023) .

### *Conservation status*

The Birds of Conservation Concern (“BoCC”) in Wales assesses bird species against a set of objective criteria to determine their conservation status; in short, red list species are those in decline, amber list species are of moderate concern, and green listed are those species not in decline (Johnstone *et al.*, 2022). Of the species in scope of the WSCS, 10 species are red-listed: shelduck *Tadorna tadorna*, red-breasted merganser *Mergus serrator*, Balearic shearwater *Puffinus mauretanicus*, black-legged kittiwake, lesser black-backed gull, herring gull *Larus argentatus*, little tern, roseate tern, Arctic tern and Atlantic puffin. Some of these species are currently growing in population size, but they remain red-listed due to concerns about their global population (Atlantic puffin), or because they have very localised vulnerable populations in Wales (little and Arctic tern) (Johnstone *et al.*, 2022). Most of the remaining species are amber listed, only great cormorant *Phalacrocorax carbo* and great-northern diver *Gavia immer* are green listed (Table 1).

The conservation status of birds in Wales often differs from the status of the same species on a UK wide scale. For example, there are three species faring better in Wales when compared with their UK BoCC status (common scoter, European shag *Gulosus aristotelis* and great-northern diver) and seven species were classed as having a more critical status compared to the UK (shelduck, red-breasted merganser, little gull *Hydrocoloeus minutus*, lesser black-backed gull, little tern, Arctic tern and red-throated diver). Suggesting that the development of regional seabird conservation strategies is necessary. This approach enables regional recognition of differences and a tailored approach to addressing the unique requirements for the conservation of seabirds in Wales.

### *Drivers of change*

On a wider scale, a number of pressures are thought to be responsible for the widespread poor conservation status among seabirds in the UK, most importantly climate change, but also human induced pressures, such as food availability, habitat loss and habitat degradation, disturbance and predation from both native and non-native species, and marine litter and water quality issues, all of which can aggravate the impacts of climate change (Burnell *et al.*, 2023; OSPAR, 2023). In order to understand where targeted conservation action will be most impactful this Strategy aims to identify which of pressures are significantly impacting seabirds in Wales.

In addition to climate change and human induced pressures, the 2021 outbreak of HPAI continues to affect the bird populations in the UK. Of the 25 UK seabird species breeding in the UK 18 species tested positive for HPAI and over 15,000 individuals were recorded dead across reserves managed by the Royal Society for the Protection of Birds (“RSPB”). The impacts on seabirds are likely to be severe, however, the magnitude of the effects on individual populations will only become apparent over the next years (RSPB, 2024).

### *Demand for a Welsh Seabird Conservation Strategy*

In 2002, the UK Government and Devolved Governments set out their vision of “... clean, healthy, safe, productive and biologically diverse seas...”(DEFRA, 2002), which underpinned various documents in the following years, such as the UK Marine Policy Statement (HM Government *et al.*, 2011) and the UK Marine Strategy (DEFRA, 2012).

Part Three of the UK Marine Strategy, published by the UK and Devolved Governments, outlines measures that contribute to the achievement and maintenance of Good Environmental Status (“GES”) of various ecosystem components, including seabirds (DEFRA, 2015). Recent assessments have concluded that seabirds and waterbirds continued to fail to achieve GES, therefore, the programme of measures of the Marine Strategy is being updated. To strengthen current conservation efforts for seabirds, it requests the development of national Seabird Conservation Strategies covering the UK (document under consultation in 2021, DEFRA, 2021). This Strategy delivers this with a focus on the seabird community in Wales, enabling and safeguarding conservation action to support the specific needs of the 29 species of Welsh seabird.

### *Principle Legislation*

The protection of seabirds in Wales forms part of the Welsh Government’s wider environmental protection activities. These activities are underpinned by legislative duties and international commitments contained within the following:

Agreement on the Conservation of Small Cetaceans in the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS)

- Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention).
- Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention).
- Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 (the Ramsar Convention)
- Environmental (Wales) Act 2016
- EU directive on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive)
- The Wild Birds Directive
- Marine and Coastal access Act 2009
- The Conservation of Habitats and Species Regulations 2017
- The Conservation of Offshore Marine Habitats and Species Regulations 2017
- Wildlife and Countryside Act 1981

Maintaining and improving the health and diversity of the seabird population in Wales is integral to our approach to protect the environment for the well-being of future generations and our duties under the Well-being of Future Generations (Wales) Act 2015. This Strategy is consistent with our policies and actions to achieve or maintain Good Environmental Status for Welsh seabirds.

The Environment (Wales) Act 2016 (“the 2016 Act”) requires that Wales’ natural resources are managed sustainably to maintain and enhance our ecosystems and the benefits they provide. We are committed to the Sustainable Management of Natural Resources (“SMNR”) approach as provided for in the 2016 Act. We are mindful of the need to continue to meet the challenge of creating jobs and infrastructure while maintaining healthy and resilient ecosystems and as such the SMNR approach is integral to this Strategy,

This Strategy is published by the Welsh Ministers in reliance of powers contained in sections 58A and 60 of the Government of Wales Act 2006.

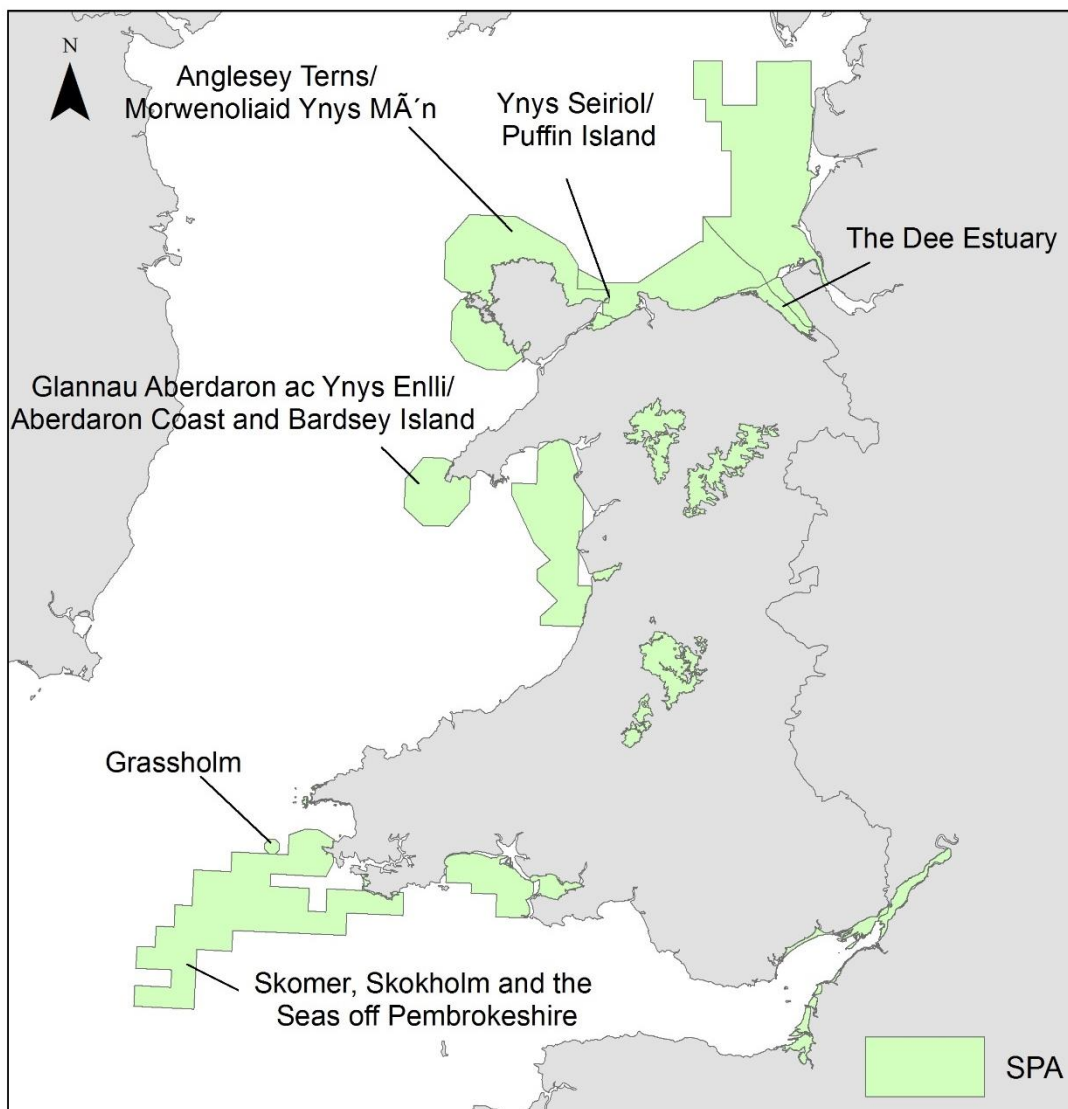
### *Existing protections*

Wales has an array of protected sites for seabirds covering various different species, geographical locations and differing habitats, including a number of internationally important Special Protected Areas (SPA) for breeding seabirds across Wales (Figure 1).

Breeding Little terns are a feature of the Dee SPA. To the north-west there is Ynys Seriol/Puffin Island SPA which is protected for great cormorant. The Anglesey Terns SPA on Anglesey has protected colonies at Cemlyn, The Skerries and Ynys Feurig and includes a large halo of sea protected around the island to protect feeding grounds.

At the end of the Llyn Peninsula is Ynys Enlli/ Bardsey Island, an SPA for Manx shearwater, which also includes marine areas for resting and maintenance behaviours.

Manx shearwaters are also a feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA along with Atlantic puffin, lesser black-backed gull and European storm petrel. This SPA also has an assemblage feature of seabirds including the aforementioned species as well as common guillemot, razorbill and kittiwake, and has a large area of sea designated for loafing and feeding. Just to the north of this site is Grassholm SPA which is designated for its northern gannet population with a small marine area for loafing.



**Figure 1. Map of SPAs around Wales, highlighting those with breeding seabird interest (dataset: NRW, 2022).**

Each one of the breeding seabird SPAs is underpinned by a Site of Special Scientific Interest (“SSSI”). Wales also has numerous other breeding seabird SSSIs which range across species and geography (Figure 2).

On the north coast of Wales are the limestone escarpments of the Pen y Gogarth/Great Ormes Head and Cregiau Rhiwled/Little Ormes Head, which have SSSIs for black-legged kittiwake, common guillemot, razorbill and great cormorant, respectively.

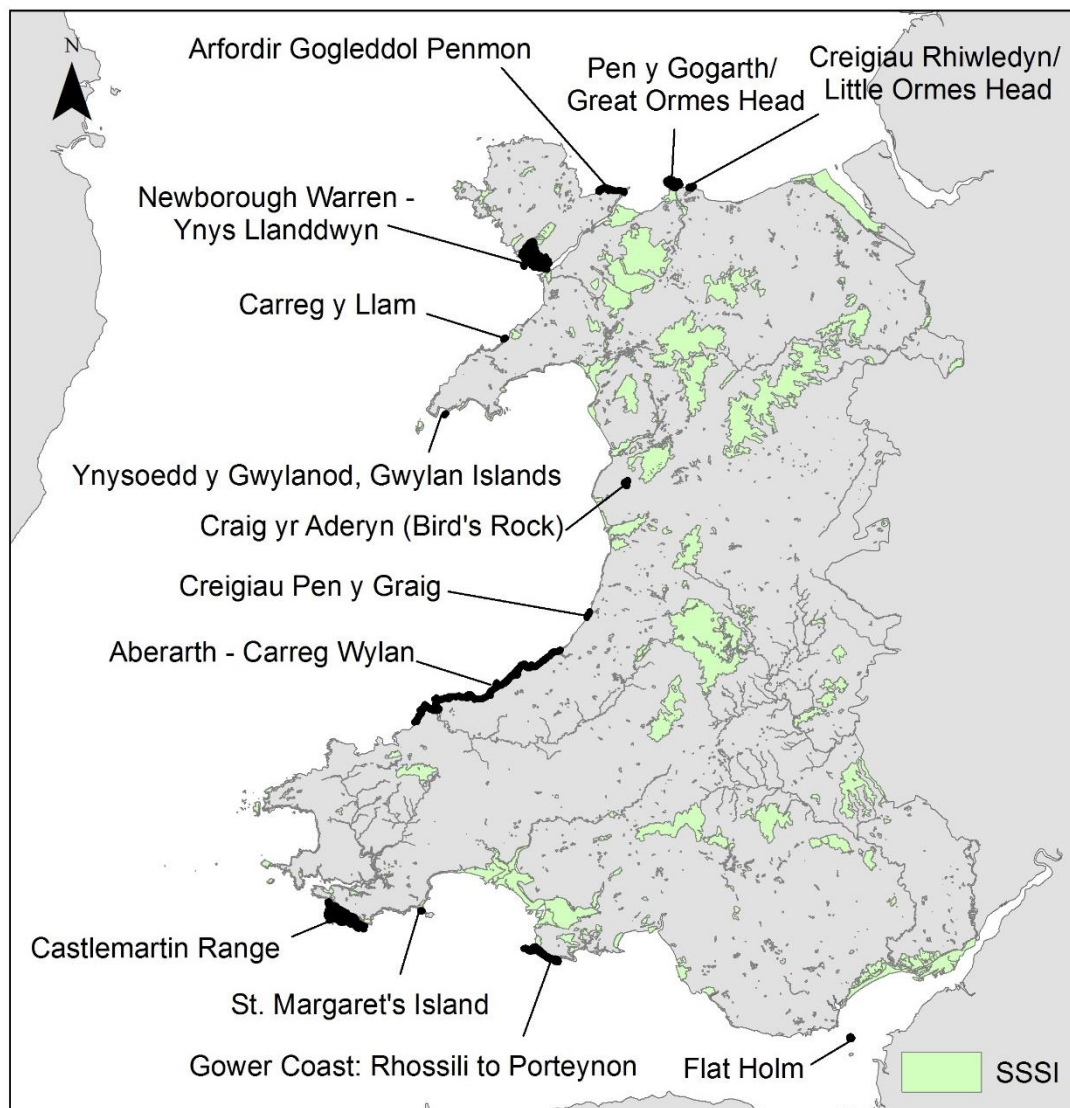
There are numerous other SSSIs for breeding great cormorant across the coast of Wales including Arfordir Gogleddol Penmon, Craig Yr Aderyn/Bird Rock, Newborough Warren-Ynys Llanddwyn, Ynysoedd Y Gwylanod/Gwylan Islands, Cregiau Pen y Graig and St Margret’s Island.

On the north coast of the Llyn peninsula there is Carreg y Llam SSSI, a large seabird colony, with common guillemot as a feature. To the south of the Llyn, Ynysoedd Y Gwylanod/Gwylan Islands is a SSSI for breeding Atlantic puffin.

Cardigan Island (which is part of Aberarth -Carreg Wylan SSSI) has lesser black-backed gull as a feature as does Flatholm Island SSSI in the Bristol Channel. Aberarth-Carreg Wylan also has a feature of breeding kittiwake.

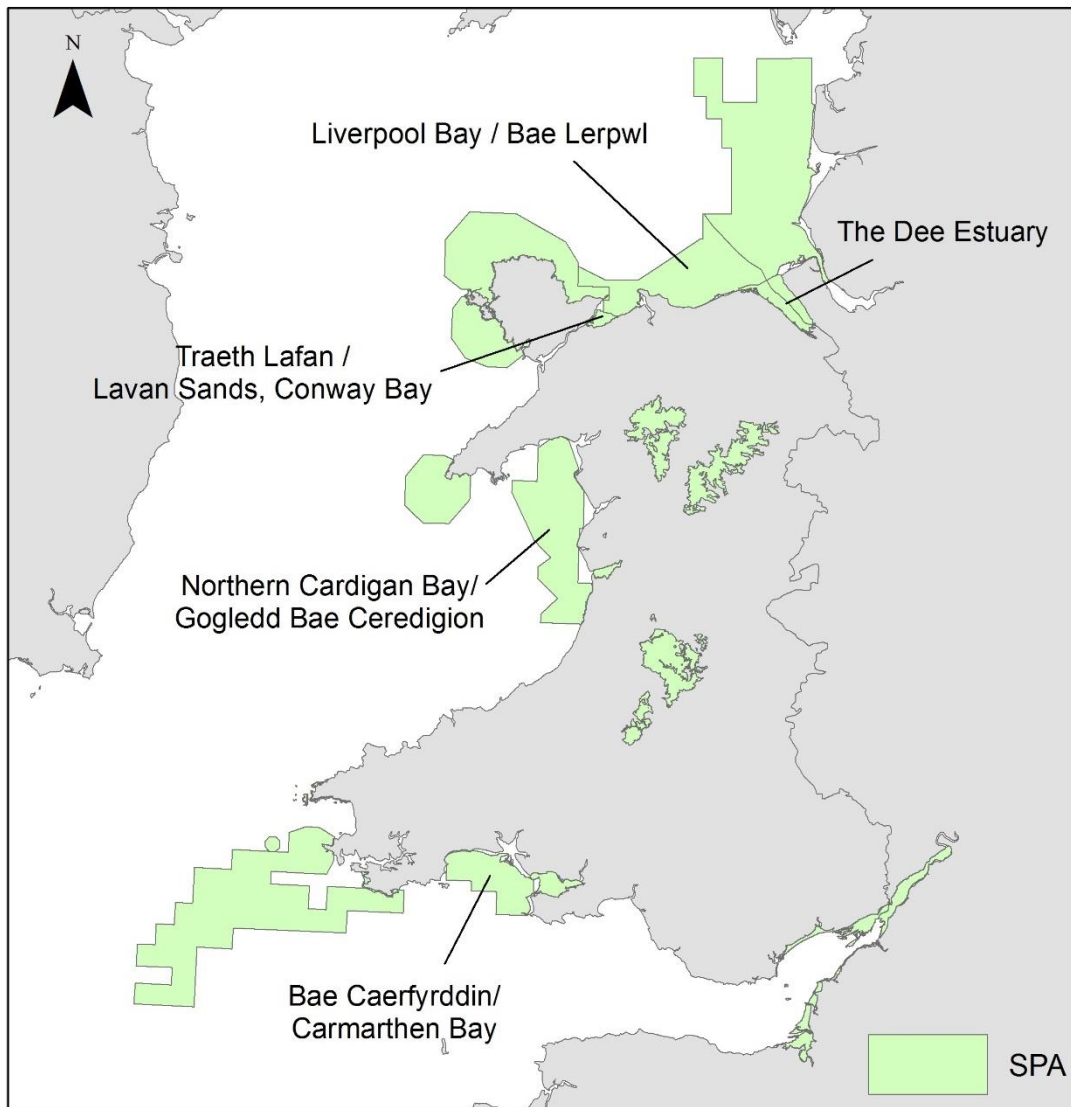
On the south coast, Castlemartin Range, a large seabird colony, protects an assemblage feature of 20,000 seabirds. To the east there is the SSSI of Gower coast: Rhossili to Porteynon which has features of guillemot and razorbill.

Many sites host other breeding species in addition to the feature species. Therefore, conservation measures aimed at protecting a feature species within a colony may provide security to the other breeding species present at the site.



**Figure 2. Map of SSSIs in Wales, highlighting those with breeding seabird interest (dataset: NRW, 2024).**

There are a number of SPAs for wintering red-throated diver and common scoter. Liverpool bay SPA is a marine SPA covering large areas of the shallow seas of Liverpool Bay in both Welsh and English waters. It protects red-throated diver and common scoter as well as little gull and an assemblage which consists of these species as well as great cormorant and red-breasted merganser. Wintering red-breasted merganser is also a feature of Traeth Lafan SPA and SSSI which Liverpool Bay SPA partly overlaps. Another important wintering site for seabirds is North Cardigan Bay SPA which is an internationally important site for red-throated diver and Carmarthen Bay SPA in the south is an internationally important site for common scoter (Figure 3). Wintering shelduck is a feature of The Dee Estuary SPA and the Severn Estuary SPA.



**Figure 3. Map of SPAs around Wales, highlighting those with wintering seabird interest (dataset: NRW, 2022).**

There are no protected sites for common eider, northern fulmar, Balearic shearwater, black-headed gull, Mediterranean gull, herring gull, great black-backed gull, black guillemot, European shag and great northern diver. Common eider is now a common breeder in north Wales on Puffin Island and the mainland of Gwynedd. Black-headed gull and Mediterranean gull are often in the large tern colonies.

### **Scope**

There are 29 seabird species covered by this Strategy (Table 1). This includes 23 'classic' seabird species (e.g. petrels, shearwaters, gannets, cormorants, gulls, terns and auks), and 4 regularly occurring duck species and two diver species. The strategy considers all life stages of these population, the breeding and the non-breeding season, when present in the Welsh territory.

The purpose of this Strategy is to further the protection, conservation and restoration of seabirds in Wales by providing a framework for a continuous assessment of the status of seabirds, and of ongoing conservation action in Wales. This will enable identification of potential gaps and, where conservation action needs to be improved or adjusted, the provision of high-level recommendations. It aims to establish conservation projects addressing the gaps with help of ongoing collaboration with stakeholders.

Whilst the strategy focuses on seabirds in Welsh waters, at the coastline and at their colonies in Wales, it recognises conservation efforts need to link to similar strategies in Scotland, England, and Northern Ireland, as well as conservation efforts undertaken internationally.

## **Objectives**

The aim of this Strategy is to drive forward interventions to improve the prospects of seabird populations in Wales by producing up to date vulnerability assessments of the designated 29 seabird species in Wales to the pressures they are facing. The Strategy identifies where Welsh conservation efforts will need to improve to help these populations to thrive over the course of the next years. Based on these assessments, the Strategy sets priorities for seabird conservation work in Wales working with stakeholders to ensure that appropriate deliverable actions are taken.

The objectives of the strategy are:

- (1) To produce up-to-date vulnerability assessments of seabird populations in Welsh waters, the coastline and at colonies in Wales, based on the best available evidence.
- (2) To identify the most important pressures and threats for each species, and whether there are commonalities across species.
- (3) To assess how key pressures and threats are currently being managed and whether there are gaps in the available evidence, in monitoring and/or the management needing to be addressed.
- (4) To develop, and raise awareness of, prioritised high-level recommendations where conservation efforts in Wales and beyond will need to focus over the course of the next years to improve the outlook for seabirds in Wales.
- (5) To ensure conservation action for seabirds by establishing a framework, including suitable funding mechanisms, to support individual projects to undertake work addressing the high-level recommendations.



Table 1. List of species covered by the WSCS (i = individuals, p = pairs, ↗ = increase, ↘ = decline).

Species	Breeding population				Non-breeding population		Conservation status		
	Wales	GB	% GB population in Wales	Trend in Wales	Wales	GB	Wales <sup>3</sup>	UK <sup>4</sup>	Euro pe <sup>5</sup>
Shelduck <i>Tadorna tadorna</i>	1,250 p <sup>6</sup>	7,850 p <sup>2</sup>	16% <sup>6</sup>	↘ decline <sup>6</sup>		51,000 i <sup>2</sup>	Red	Amber	LC
Common eider <i>Somateria mollissima</i>	20 p <sup>6</sup>	37,000 p <sup>2</sup>	<1% <sup>6</sup>			86,000 i <sup>2</sup>	Amber	Amber	EN
Common scoter <i>Melanitta nigra</i>	0 p <sup>6</sup>	52 p <sup>2</sup>	0% <sup>6</sup>			135,000 i <sup>2</sup>	Amber	Red	LC
Red-breasted merganser <i>Mergus serrator</i>	<100 p <sup>6</sup>	1,650 p <sup>2</sup>	<6% <sup>6</sup>	↘ decline <sup>6</sup>		11,000 i <sup>2</sup>	Red	Amber	NT
Northern fulmar <i>Fulmarus glacialis</i>	2,494 p <sup>1</sup>	320,000 p <sup>1</sup>	1% <sup>1</sup>	↘ 27% <sup>1</sup>			Amber	Amber	VN
Manx shearwater <i>Puffinus puffinus</i>	480,627 p <sup>1</sup>	780,000 p <sup>1</sup>	61% <sup>1</sup>				Amber	Amber	LC
Balearic shearwater <i>Puffinus mauretanicus</i>	0 p	0 p					Red	Red	CE
European storm petrel <i>Hydrobates pelagicus</i>	2,943 p <sup>1</sup>	38,000 p <sup>1</sup>	8% <sup>1</sup>		1,588 i <sup>6</sup>		Amber	Amber	LC
Northern gannet <i>Morus bassanus</i>	36,011 p <sup>1</sup>	300,000 p <sup>1</sup>	12% <sup>1</sup>	↗ 12% <sup>1</sup>			Amber	Amber	LC
Great Cormorant <i>Phalacrocorax carbo</i>	1,477 p <sup>1</sup>	8,300 p <sup>1</sup>	18% <sup>1</sup>	↘ 17% <sup>1</sup>		66,000 i <sup>2</sup>	Green	Green	LC

Species	Breeding population				Non-breeding population		Conservation status		
	Wales	GB	% GB population in Wales	Trend in Wales	Wales	GB	Wales <sup>3</sup>	UK <sup>4</sup>	Europe <sup>5</sup>
European shag <i>Gulosus aristotelis</i>	651 p <sup>1</sup>	20,000 p <sup>1</sup>	3% <sup>1</sup>	↘ 29% <sup>1</sup>		110,000 i <sup>2</sup>	Amber	Red	LC
Black-legged kittiwake <i>Rissa tridactyla</i>	4,782 p <sup>1</sup>	200,000 p <sup>1</sup>	2% <sup>1</sup>	↘ 34% <sup>1</sup>			Red	Red	VN
Black-headed gull <i>Chroicocephalus ridibundus</i>	1,670 p <sup>1</sup>	85,000 p <sup>1</sup>	2% <sup>1</sup>	↘ 16% <sup>1</sup>		2,200,000 i <sup>2</sup>	Red	Amber	LC
Little gull <i>Hydrocoloeus minutus</i>							Amber	Green	LC
Mediterranean gull <i>Larus melanocephalus</i>	17 p <sup>1</sup>	2,300 p <sup>1</sup>	1% <sup>1</sup>	↗ gain		4,000 i <sup>2</sup>	Amber	Amber	LC
Lesser black-backed gull <i>Larus fuscus</i> - natural	13,084 p <sup>1</sup>	51,000 p <sup>2</sup>	25% <sup>1</sup>	↘ 45% <sup>1</sup>		130,000 i <sup>2</sup>	Red	Amber	LC
– urban	10,748 p <sup>1</sup>	270,000 p <sup>1</sup>	4% <sup>1</sup>						
Herring gull <i>Larus argentatus</i> - natural	9,815 p <sup>1</sup>	59,000 p <sup>1</sup>	17% <sup>1</sup>	↘ 23% <sup>1</sup>		740,000 i <sup>2</sup>	Red	Red	LC
– urban	10,748 p <sup>1</sup>	170,000 p <sup>1</sup>	8% <sup>1</sup>						
Great black-backed gull <i>Larus marinus</i>	648 p <sup>1</sup>	7,600 p <sup>1</sup>	9% <sup>1</sup>	↗ 49% <sup>1</sup>		77,000 i <sup>2</sup>	Amber	Amber	LC
Little tern <i>Sternula albifrons</i>	172 p <sup>1</sup>	1,400 p <sup>1</sup>	12% <sup>1</sup>	↗ 129% <sup>1</sup>			Red	Amber	LC

Species	Breeding population				Non-breeding population		Conservation status		
	Wales	GB	% GB population in Wales	Trend in Wales	Wales	GB	Wales <sup>3</sup>	UK <sup>4</sup>	Europe <sup>5</sup>
Sandwich Tern <i>Thalasseus sandvicensis</i>	519 p <sup>1</sup>	11,000 p <sup>1</sup>	5% <sup>1</sup>	↗ 15% <sup>1</sup>		65 i <sup>2</sup>	Amber	Amber	LC
Common tern <i>Sterna hirundo</i>	850 p <sup>1</sup>	10,000 p <sup>1</sup>	8% <sup>1</sup>	↗ 21% <sup>1</sup>			Amber	Amber	LC
Roseate tern <i>Sterna dougallii</i>	1 p <sup>1</sup>	120 p <sup>1</sup>	1% <sup>1</sup>	↘ 50% <sup>1</sup>			<b>Red</b>	<b>Red</b>	LC
Arctic tern <i>Sterna paradisaea</i>	3,978 p <sup>1</sup>	30,000 p <sup>1</sup>	13% <sup>1</sup>	↗ 133% <sup>1</sup>			<b>Red</b>	Amber	LC
Common guillemot <i>Uria aalge</i>	104,737 i <sup>1</sup>	1,100,000 i <sup>1</sup>	9% <sup>1</sup>	↗ 76% <sup>1</sup>			Amber	Amber	LC
Razorbill <i>Alca torda</i>	23,640 i <sup>1</sup>	200,000 i <sup>1</sup>	12% <sup>1</sup>	↗ 82% <sup>1</sup>			Amber	Amber	LC
Black guillemot <i>Cephus grylle</i>	38 i <sup>1</sup>	34,000 i <sup>1</sup>	0% <sup>1</sup>	↗ 15% <sup>1</sup>			Amber	Amber	LC
Atlantic puffin <i>Fratercula arctica</i>	30,663 p <sup>1</sup>	470,000 p <sup>1</sup>	6% <sup>1</sup>	↗ 104% <sup>1</sup>			<b>Red</b>	<b>Red</b>	<b>EN</b>
Great-northern diver <i>Gavia immer</i>	0 p	0 p				4,400 i <sup>2</sup>	Green	Amber	LC
Red-throated diver <i>Gavia Stellata</i>	0 p <sup>1</sup>	1,250 p <sup>2</sup>	0% <sup>6</sup>		150 i <sup>6</sup>	22,000 i <sup>2</sup>	Amber	Green	LC

1: Burnell et al (2023), shown are only decreases and increases where a confident assessment was possible,

2: BTO (2023),

3: Johnstone et al (2022)

4: BoCC5, Stanbury et al (2021),

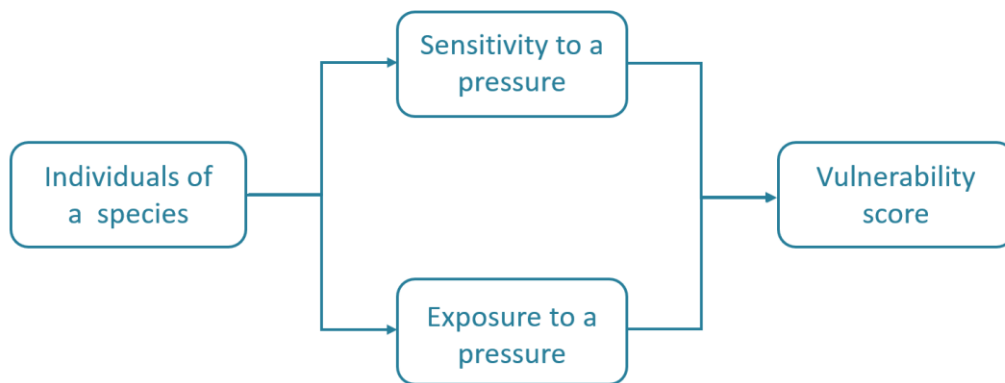
5: IUCN, BirdLife International (2022), LC: Least Concern, VN: Vulnerable, EN: Endangered, NT: Near Threatened, CE: Critically Endangered,

6: Birds of Wales, Pritchard et al (2021).

## Assessing Vulnerability to Pressures

To identify the key pressures posing the largest risk for seabirds covered by this Strategy, the vulnerability to current pressures of each of the 29 seabird species in Wales must be assessed. The method for assessing vulnerability follows the structure of previous vulnerability assessments conducted for the UK Dolphin and Porpoise Conservation Strategy (Scottish Government, 2021) and for the English Seabird Conservation and Recover Pathway (Banks *et al.*, 2024).

The approach adopted for the vulnerability assessments rests on two components: the general sensitivity of a species to a given pressure, and the exposure of that species to the pressure in Wales (Table 2). Following this approach, for each species and pressure combination a vulnerability score was determined based on an assessment by experts.



**Table 2. Vulnerability assessment of seabird species to pressures in Wales. Adopted from UK Dolphin and Porpoise Conservation Strategy (Scottish Government, 2021).**

### WSCS Species Cards

For each of the 29 seabird species covered by this Strategy, an overview of key facts about the species and their occurrence in Wales is collected and summarised in a WSCS Species Card. These facts are part of the evidence basis underpinning the expert vulnerability assessments. They cover

- Population and ecology: This covers a general description of the range of the species during the breeding and non-breeding season, the population status in Wales (BoCC) and wider scale population trends.
- Areas of use and human activity: In this section a map is provided with the species' distribution in Wales, the location of protection areas and its overlap with human activities where these can be mapped. This also includes a classification of human activities into red, green and amber based on their perceived impact to species.
- Current impact status: This status indicates the extent to which a given species is currently impacted by human-induced pressures in Wales. This is an assessment based on species trends and extant pressures in Wales and sensitivity of a species to pressures and differs from the population status (BoCC) as the pressure may have been in place for a long time.

- Sensitivity score. This is the outcome of sensitivity assessments and lists all pressures which were deemed important in Wales.
- Evidence gaps. A general assessment of where clear evidence gaps are present.
- Opportunities. A list of areas where additional evidence could be useful.

The Species Cards will be updated initially after 2 years by the WSCS steering group, with a more formal review at 5 years to be undertaken by Welsh Government. The most recent WSCS Species Cards can be found on the Welsh Government website and were published in Autumn 2024.

### Sensitivity Assessments

Sensitivity of a seabird species to a given pressure is the severity of impact as a result of the pressure. It is based on two components, the ability to tolerate or resist change (resistance) and the ability to recover from impact (resilience) (Tyler-Walters *et al.*, 2018). To understand which pressures a given species is sensitive to, an assessment is conducted for each species, spatiotemporal element (at the colony during breeding, away from the colony during breeding, during the non-breeding season) and pathway (mortality, displacement) combination, adopting the methodology from the English Seabird Conservation and Recovery Pathway (Spencer *et al.*, 2022). The sensitivity assessments are evidence-based expert judgements, scoring how strong the resistance<sup>1</sup> and the resilience<sup>2</sup> of a species is to a given pressures. The combination of the resistance and resilience scores leads to a joint sensitivity score for each of the species, spatiotemporal element and pathway combinations (Table 3). For details on the method please refer to Spencer *et al.* (2022).

**Table 3. Sensitivity matrix for deriving sensitivity scores. Source: Spencer *et al.* (2022).**

			Resistance			
			None	Low	Medium	High
			Severe decline (>50%) in local population	Significant decline (>10% to ≤50%) in local population	Moderate decline (≤10%) in local population	No decline in local population
Resilience	Low	Full recovery of population to pre-impact size within >10 years	High	High	Medium	Low
	Medium	Full recovery within >2 to ≤ 10 years	High	Medium	Medium	Low

<sup>1</sup> The ability to absorb disturbance or stress without changing character (Holling, 1973).

<sup>2</sup> The ability to recover from the impacts of disturbance or stress (Holling, 1973).

High	Full recovers within 2 years	High	Medium	Low	Not sensitive
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The results of the sensitivity assessment are filtered for pressures scoring for both resilience and resistance as ‘low’ or ‘none’, resulting into a ‘high’ sensitivity score. This short list of relevant pressures are then compared with Welsh-specific information provided by ‘The Birds of Wales’ (Pritchard et al., 2021) and ‘Seabirds Count: A Census of Breeding Seabirds in Britain and Ireland’ (Burnell et al., 2023) to adapt the sensitivity scores to their application in Wales. Those ‘high’ scoring pressures identified as being relevant in Wales for a given species are then listed on the respective WSCS Species Cards.

Alongside the sensitivity scores, a confidence rating is provided based on the evidence basis used to determine the sensitivity scores. Points are given to the quality of the evidence, the applicability, and the degree of concordance between different pieces of evidence these points determine the confidence ratings. The total sum of points for a pressure across the three categories determine if there is a high confidence (total points >12), medium confidence (6-12 points) or low confidence (<6 points) (Spencer et al., 2022).

**Table 4. Confidence into sensitivity scores (Spencer et al., 2022).**

	Quality of information sources	Applicability of evidence	Degree of concordance
<b>High Confidence</b>	Based on peer reviewed papers (observational or experimental) or grey literature reports by established agencies on the feature.	Assessment based on the same pressures arising from similar activities, acting on the same type of feature in comparable area (i.e. Ireland, UK).	Evidence agrees on the direction and magnitude of impact.
	Score = 5	Score = 5	Score = 5
<b>Medium Confidence</b>	Based on some peer reviewed papers but relies heavily on grey literature or expert judgement on feature or similar feature.	Assessment based on similar pressures on the feature in other areas.	Evidence agrees on direction but not magnitude of impact.
	Score = 3	Score = 3	Score = 3
<b>Low Confidence</b>	Based on expert judgement, which is not clearly documented.	Assessment based on proxies for pressures e.g. natural	Evidence does not agree on concordance or magnitude.

		disturbance events.	
	Score = 1	Score = 1	Score = 1

### Exposure assessments

The exposure of a species to a pressure is the extent to which the pressure acts on a species. This will vary depending on; spatial extent (or overlap with the species), magnitude and duration of the pressure. The method used for exposure assessments is adopted from the UK Dolphin and Porpoise Conservation Strategy (Scottish Government, 2021).

Assessments are carried out by comparing the distribution of a seabird species during a given season with the distribution of pressures. Since pressures (e.g. noise, disturbance, pollution) are not easy to map, human activities known to cause such pressures are identified and mapped as proxies for related pressures. Spatial overlap between human activities and the species distribution are then graded as high, medium or low (Table 5). Seasonality of species and pressure distributions is considered. If scoring differs between seasons the precautionary principle is applied and the lower score applies. The scores are then adjusted, based on expert opinion, to account for intensity of the impact (e.g. long- or short-term presence of that activity), for example, where there is a wide-ranging pressure that has a large overlap with a species' distribution the exposure would be 'high'. However, in instances where that pressure occurs infrequently and / or is of short duration the exposure score can be downgraded to a 'medium' or 'low'.

**Table 5. Exposure scores.**

Exposure score	% of population experiencing a pressure
High	>50%
Medium	>10% - 50%
Low	>0% - 10%

Alongside the exposure scores, experts also rate their confidence of the exposure scores, based on the evidence available for the assessment (Table 6).

**Table 6. Confidence into exposure scores.**

Confidence score	Evidence basis
High	Experts have a good understanding of the pressure and species distributions, based on species and pressure (or activity) maps for most of the pressure experienced by the species.
Medium	Experts have a good understanding of part of the species distributions and for some of the pressure, underpinned by



	maps, but for a significant amount of the pressure there is uncertainty about its spatial distribution, magnitude and/or duration.
Low	Experts may have a good understanding of the species distribution, but they don't have much evidence on the pressure distribution. The exposure assessment rests mainly on broad generalisations.

### Vulnerability assessments

The vulnerability of a species to a pressure is a measure of how much the species is exposed to the pressure to which it is highly sensitive (Table 7). The method for the vulnerability assessment is based on that from the English Seabird Conservation and Recovery Pathway (Banks et al., 2024). However, for the purposes of this strategy only pressures with 'high' sensitivities were assessed for vulnerability across the 29 species.

**Table 7. Vulnerability scores if there is a high sensitivity and varying degrees of exposure. Based on Banks et al. (2024)**

Exposure	Sensitivity	Vulnerability
high	high	high
medium	high	high-moderate
low	high	moderate

A confidence value of 'high', 'medium' and 'low' will be included for both sensitivity and exposure assessments. The overall confidence into the vulnerability assessment is the lower of the two confidence scores for the sensitivity and the exposure assessments.

### Recommendations for conservation action

Based on the outcome of the vulnerability assessments, the most important human activities and pressures can be identified. Those vulnerability assessments which are scored as 'high' will be prioritised based on urgency, the number of species impacted and their current population status. This will be based on expert judgement.

High level recommendations are then developed for thematic areas which should be prioritised for conservation action during the next years. Recommendations will be a result of discussions between experts and practitioners. Every two years, when species cards are inspected for necessary updates, recommendations can also be revisited if applicable. However, a more formal review will be undertaken after 5 years.

The recommendations will be published separately to the main Strategy as an annex document. Provisional recommendations will be expected in 2025.

## Implementation

Given the longevity of the objectives and the likely timelines for interventions to take effect this strategy has a lifespan of 10 years.

This 10 year period allows for regular marine assessments such as the State of Natural Resources Report (“SoNaRR”) and UK Marine Strategy (reporting for Good Environmental Status) to complete at least one cycle. Meaning any impacts upon population status and change for the 29 species of seabird should be able to be evidenced. A review period which is less than this timeframe may not allow for updated population assessments.

A mid-cycle interim review of the Strategy will be undertaken every 5 years. It will include a report summary outlining outputs and achievements to date.

Species cards will be reviewed after 2 years following an initial publication date of Autumn 2024 and will be based on the evidential need. This will be undertaken using expert judgement. Following this, they will be reviewed after 5 years as part of the mid-cycle review of the Strategy. This will ensure any changes in pressures are factored in to the vulnerability assessments and thus any re-prioritisation or review of recommendations can be undertaken. Any notable population change within species can also be captured within this review.

The recommendations will be set out after publication of this strategy and will follow the methodology outlined within this strategy. Provisional recommendations will be expected in 2025. Recommendations will be reviewed after 2 years by the WSCS steering group to coincide with any anticipated changes noted within the species cards, i.e. changes to population status or elements of the vulnerability assessments. Similarly, a more comprehensive review will be undertaken after 5 years by Welsh Government.

The Welsh Government will coordinate the various review elements of this strategy as outlined above.

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## **Consultation Response Form**

Your name:

Organisation (if applicable):

email / telephone number:

Your address:

### **Our Welsh Seabird Conservation Strategy**

Question 1: Do you agree with the objectives set out in the Strategy?

Question 2: Do you agree with the methodology used to undertake the vulnerability assessments (including sensitivity and exposure assessments)?

Question 3: Do you agree with the implementation period for the Strategy?

Question 4: Do you agree with the process to identify recommendations?

Question 5: We've asked a number of questions, but are there any other issues you'd like to mention here?

### **Welsh Language Questions**

Question 6: What, in your opinion, would be the likely effects of the Strategy on the Welsh language? We are particularly interested in any likely effects on opportunities to use the Welsh language and on not treating the Welsh language less favourably than English.

Do you think that there are opportunities to promote any positive effects?

Do you think that there are opportunities to mitigate any adverse effects?

Question 7: In your opinion, could the Strategy be formulated or changed so as to:

- have positive effects or more positive effects on using the Welsh language and on not treating the Welsh language less favourably than English; or
- mitigate any negative effects on using the Welsh language and on not treating the Welsh language less favourably than English?

Question 8: We have asked a number of specific questions. If you have any related

issues which we have not specifically addressed, please use this space to report them:

Please enter your response here:

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please indicate here: