Information and resources: great black-backed gull

This document provides information and resources on great black-backed gulls (*Larus marinus*) to support Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) Wild Birds Licence applications, but is not limited to these application types. The information provided is the minimum Joint Nature Conservation Committee (JNCC) expects to see in support of a Wild Birds Licence application and inclusion of more recent evidence is encouraged.



Great black-backed gull ID and basic ecology

The following sources provide some basic information on great black-backed gull identification and ecology:

- <u>RSPB</u> – BTO
- <u>BTO</u>
- The Cornell Lab

Conservation and legal status

The conservation, protection and legal status of great black-backed gulls are currently identified in the following:

- The <u>Wildlife and Countryside Act 1981</u>
- -___The Conservation of Offshore Marine Species and Habitats Regulations 2017

Great black-backed gull are currently identified as a conservation priority in the following:

 Red listed in <u>Birds of Conservation Concern 5 Breeding Seabird Update (2024</u> update)

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- Green listed in Birds of Conservation Concern in Ireland 2020-2026
- Classified as least concern on the <u>IUCN Red List</u>

Further information on Conservation Designations for UK Taxa.

Population trends and estimates

A sample of great black-backed gull colonies in Britain and Ireland are monitored annually for abundance and productivity (no. of chicks fledged per pair) by the <u>Seabird Monitoring</u> <u>Programme</u> (SMP) and these are supplemented by periodic censuses, typically every 15-20 years, which aim to provide counts for all colonies. Together, these data allow the identification of <u>trends</u> in both population size and productivity for <u>great black-backed gulls</u> in Britain and Ireland.

Population and productivity data are publicly available from the SMP database (<u>https://app.bto.org/seabirds/public/</u>).

Behaviour

An overview of great black-backed gull behaviour during both the breeding and nonbreeding seasons can be found in Coulson (2019). This book covers breeding, movements, feeding, survival, and roosting. Understanding great black-backed gull behaviour enables a better understanding of their presence at a colony and the potential impacts of works during different stages of the breeding season.

Phenology

Although great black-backed gulls have a defined breeding season (April – July), timings of arrival at the colony, nest building and egg laying will vary both within and between colonies particularly due to latitude (northern colonies tend to breed later), as well as individual age and experience of the birds. Phenology can also vary between years due to variables including, but not limited to, weather (before and during the breeding season), disturbance and food availability.

Information and data on great black-backed gull phenology can be found in BTO (2025) and Coulson (2019).

Note that no data has so far been collected for great black-backed gull colonies offshore, but the breeding season is assumed to be the same as onshore colonies.

Factors affecting great black-backed gull demography

As with other seabird species, great black-backed gull population trends are strongly influenced by small changes in adult survival. Cook & Robinson (2016) showed that Population Viability Analysis (PVA) predictions were most sensitive to impacts on adult survival, though reductions in juvenile survival and productivity rates also impacts population growth predictions. This suggests that impacts on adult survival rates are likely to have a greater impact on populations but impacts on other demographic rates including productivity shouldn't be discounted.

The specific causes of global and local declines in great black-back gull are not clear (Langlois Lopez *et al.*, 2023). However, seabirds are vulnerable to a large number of pressures (Dias *et al.*, 2019) and great black-backed gull demography is influenced by many factors including, but not limited to:

- food availability (e.g. Bicknell *et al.* ,2013; Farmer & Leonard, 2011; Hüppop & Wurm, 2000)
- commercial fishing (e.g. Farmer & Leonard, 2011; Wilhelm et al., 2016)

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- climate change (e.g. Cook et al., 2014; Mitchell et al., 2010)
- pollutants (e.g. Helberg et al., 2005; Seys et al., 2002; Seabird Oil Sensitivity Index)
- persecution (e.g. Bregnballe et al., 2006; Kress, 1983; Perrins & Smith, 2000)
- disease (e.g. Kleyheeg et al., 2017; Macdonald & Standring, 1978)
- collision with offshore wind farms (e.g. Bradbury *et al.*, 2014; Furness *et al.*, 2013; Vanermen *et al.*, 2015), and
- bycatch (e.g. Bærum et al., 2019; Miles et al., 2020; Northridge et al., 2020).

General information on pressures that great black-backed gulls are sensitive to can be found in the following:

<u>IUCN Red List</u>

Humans present a perceived predation risk to seabirds and their presence around great black-backed gulls colonies can result in disturbance (Frid & Dill, 2002). Not all responses to disturbance are visible or behavioural. Physiological responses, or stress, have been recorded in a number of bird species (e.g. Fowler, 1999; Nimon *et al.*, 1995; Culik & Wilson, 1995), and have been shown to reduce breeding success in some birds (e.g. Silverin, 1986). Beale and Monaghan (2004) found that human disturbance had a significant negative effect on the breeding success of both kittiwakes and guillemots at St Abbs Head National Nature Reserve.

Evidence of birds breeding on offshore installations

There is currently limited published evidence of great black-backed gulls breeding on offshore installations, although their presence at such sites has been documented (e.g. Burke *et al.*, 2012 and Tasker *et al.*, 1986).

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