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# National Parks and Wildlife Service

**Conservation Objectives Series** 

## Inishtrahull SPA 004100



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#### Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance
- exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

• population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and

• the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and

• there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

#### Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.

2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.

3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.

4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.

5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

### **Qualifying Interests**

004100	Inishtrahull SPA
A018	Shag Phalacrocorax aristotelis
A045	Barnacle Goose Branta leucopsis
A182	Common Gull Larus canus

Please note that this SPA overlaps with Inishtrahull SAC (000154). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site(s) as appropriate.

### Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

#### **NPWS Documents**

Year :	2007		
Title :	Seabird Productivity at East and South coast colonies in Ireland in 2007: Site accounts		
Author :	Trewby, M.; Burt E.; Newton, S.		
Autior .	Hewby, M., Burt E., Newton, G.		
Series :	Unpublished report to NPWS		
Year :	2013		
Title :	A review of the SPA network of sites in the Republic of Ireland		
Author :	NPWS		
Series :	Published Report		
Year :	2019		
Title :	Irish wetland bird survey: waterbird status and distribution 2009/10-2015/16		
Author :	Lewis, L.J.; Burke, B.; Fitzgerald, N.; Tierney, T.D.; Kelly, S.		
Series :	Irish Wildlife Manuals No. 106		
Year :	2021		
Title :	Estimated foraging ranges of the breeding seabirds of Ireland's marine special protected area network		
Author :	Power, A.; McDonnell, P.; Tierney, T.D.		
Series :	Published NPWS report		
Year :	2024		
Title :	Foraging activity of breeding Arctic Terns and European Shags in W Ireland: results of a telemetry study in 2023		
Author :	Colhoun, K.; Latimer, J.; Sardà-Serra, M.; Collins, J.; Inger, R.		
Series :	Unpublished report to NPWS		

#### **Other References**

Year :	1900		
Title :	The Birds of Ireland: An Account of the Distribution, Migrations and Habits of Birds as Observed in Ireland, with All Additions to the Irish List		
Author :	Ussher, R.J.; Warren, R.		
Series :	Gurney and Jackson		
Year :	1954		
Title :	The Birds of Ireland. Their Migrations and Habits. Assessed by G.R. Humphreys		
Author :	Kennedy, P.G.; Ruttledge R.F.; Scroope, C.F.		
Series :	London: Oliver and Boyd		
Year :	1973		
Year : Title :	1973 Population Dynamics of Barnacle Geese, <i>Branta leucopsis</i> , in Ireland		
Title :	Population Dynamics of Barnacle Geese, Branta leucopsis, in Ireland		
Title : Author :	Population Dynamics of Barnacle Geese, <i>Branta leucopsis</i> , in Ireland Cabot, D. Proceedings of the Royal Irish Academy. Section B: Biological, Geological, and Chemical		
Title : Author : Series :	Population Dynamics of Barnacle Geese, <i>Branta leucopsis</i> , in Ireland Cabot, D. Proceedings of the Royal Irish Academy. Section B: Biological, Geological, and Chemical Science, 73, 415–443		
Title : Author : Series : Year :	Population Dynamics of Barnacle Geese, <i>Branta leucopsis</i> , in Ireland Cabot, D. Proceedings of the Royal Irish Academy. Section B: Biological, Geological, and Chemical Science, 73, 415–443 1995		

Year :	1999		
Title :	Managing grassland for wild geese in Britain: a review		
Author :	Vickery, J.; Gill, J.		
Series :	Biological Conservation, 89(1), pp.93-106		
Year :	2003		
Title :	Implications for seaward extensions to existing breeding seabird colony Special Protection Areas		
Author :	McSorley, C.A.; Dean, B.J.; Webb, A.; Reid J.B.		
Series :	JNCC Report No. 329		
Year :	2004		
Title :	Seabird populations of Britain and Ireland		
Author :	Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.		
Series :	Poyser, London		
Year :	2019		
Title :	Desk-based revision of seabird foraging ranges used for HRA screening		
Author :	Woodward, I.; Thaxter, C.B.; Owen, E.; Cook, A.S.C.P.		
Series :	BTO Research Report No. 724		
Year :	2019		
Title :	Report under Article 12 of the Birds Directive Period 2013-2018		
Author :	EEA		
Series :	European Environment Agency. European Topic Centre on Biological Diversity. Pp 1-9. https://cdr.eionet.europa.eu/Converters/run_conversion? file=ie/eu/art12/envxztxxq/IE_birds_reports_20191031-130157.xml&conv=612&source=remote		
Year :	2021		
Title :	Common Gull (Larus canus), version 1.1. In Birds of the World (S. M. Billerman, Editor)		
Author :	Moskoff, W.; Bevier, L.R.; Rasmussen, P.C.		
Series :	Cornell Lab of Ornithology, Ithaca, NY, USA		
Year :	2021		
Title :	European Shag (Gulosus aristotelis), version 1.2. In Birds of the World (B. K. Keeney, Editor)		
Author :	Orta, J., Garcia, E. F. J.; Jutglar, F.; Kirwan, G. M.; Boesman, P. F. D.		
Series :	Cornell Lab of Ornithology, Ithaca, NY, USA		
Year :	2023		
Title :	Seabirds Count: a census of breeding seabirds in Britain and Ireland (2015-2021)		
Author :	Burnell, D.; Perkins, A.J.; Newton, S.F.; Bolton, M.; Tierney, T.D.; Dunn, T.E.		
Series :	Lynx Nature Books, Barcelona		
Year :	2023		
Title :	Home range of a long-distance migrant, the Greenland Barnacle Goose <i>Branta leucopsis</i> , throughout the annual cycle		
Author :	Doyle, S.; Cabot, D.; Griffin, L.; Kane, A.; Colhoun, K.; Redmond, C.; Walsh, A.; McMahon, B.J.		
Series :	Bird Study, 70(1-2), pp.37-46		
Year :	2024		
Title :	European Shag (Phalacrocorax aristotelis)		
Author :	JNCC		
Series :	https://jncc.gov.uk/our-work/european-shag-phalacrocorax-aristotelis/		

Year :	2024
Title :	Seabird Population Trends and Causes of Change: 1986–2023, the annual report of the Seabird Monitoring Programme
Author :	Harris, S.J.; Baker, H.; Balmer, D.E.; Bolton, M.; Burton, N.H.K.; Caulfield, E.; Clarke, J.A.E.; Dunn, T.E.; Evans, T.J.; Hereward, H.R.F.; Humphreys, E.M.; Money, S.; O'Hanlon, N.J.
Series :	BTO Research Report 771
Year :	2025
Year : Title :	
	2025

#### Conservation Objectives for : Inishtrahull SPA [004100]

#### A018 Shag *Phalacrocorax aristotelis*

## To maintain the Favourable conservation condition of Shag in Inishtrahull SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population size	Number of Apparently Occupied Nests (AON)	Long term SPA population trend is stable or increasing	Ussher and Warren (1900) noted that breeding Shag were numerous in Co. Donegal. In 1999 at least 127 pairs of Shag nested on Inishtrahull (NPWS internal files). Breeding surveys in 2015 and 2016 estimated approximately 50 and 90 pairs of Shag respectively, indicating a decline (Burnell et al., 2023; NPWS internal files). The population of Shag has been monitored annually between 2019 and 2024 as part of Inishtrahull Bird Observatory (IBO) monitoring work. In this time period the Shag population has increased significantly with counts ranging between 300 and 346 pairs (IBO, 2025). The most recent population estimate in 2024 of 346 pairs is the highest on record for this SPA and represents a population increase of up to 172% since 1999. The national population of Shag has increased by 40% between surveys in 1998 - 2002 and 2015 - 2021 (Burnell et al., 2023)
Productivity rate	Number of fledged young per breeding pair	Sufficient to maintain a stable or increasing population	The average productivity from Inishtrahull SPA was 1.9 chicks fledged per pair in 2023 with a sample size of 84 pairs (IBO, 2025). Trewby et al. (2007) reported that the average productivity from Lambay Island SPA was 1.69 (± 0.08 SE) chicks fledged per AON in 2007 (135 pairs across five subplots). Further monitoring and research work is required in order to identify a minimum productivity rate for thi species at this site and at the national level. Shag productivity in Scotland has averaged 1.28 chicks fledged per pair between 1986 and 2019 (JNCC, 2024). In this time period the Scottish population of Shag has decreased 47% (Burnell et al., 2023). However, the cause of decline may not be related to productivity rate but rather due to significant losses of that adult population during "wrecks" in some winters during this time period (JNCC, 2024). The productivity in this SPA in 2023 was relatively high which indicates a stable breeding population
Distribution: extent of available nesting options within the SPA	Numbers and spatial distribution	Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Distribution encapsulates the number of locations and area of potentially suitable nesting habitat for the breeding population and its availability for use. The suitability and availability of habitat across the SPA may vary through time. This will affect the spatio-temporal patterns of use of the habitats by Shag. Typically this species breeds on sea cliffs, rocks and stacks (Orta et al., 2021). Shag breed across multiple areas within this SPA
Forage spatial distribution, extent, abundance and availability	Location, hectares, and forage biomass	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	The diet of Shag is almost exclusively fish, taken chiefly near the sea bed or at intermediate depths, and principally of the families Ammodytidae (sandeels), Gadidae, Clupeidae, Cottidae, and Labridae, but a wide range of other species can be taken, perhaps opportunistically (Orta et al., 2021). Based on several studies, Woodward et al. (2019) provide estimates of foraging ranges from the nest site during the breeding season (i.e. overall mean, mean of maximum distances across all studies, and maximum distance recorded) for Shag, which are 9km, 13km, and 46km respectively (see Power et al., 2021). In 2022, GPS-tagged Shag at Inishtrahul (n=9) travelled up to 22.5km from the colony to forage with a mean maximum distance of 2.7km indicating that birds foraged primarily in waters immediately surrounding the island (Colhoun et al., 2024)

Disturbance at the breeding site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact on birds at the breeding site	Disturbance events at the nest site/breeding colony level can result in a reduction of overall productivity and even lead to the abandonment of the breeding colony. The impact of any significant disturbance (direct or indirect) to the breeding population will ultimately affect the achievement of targets for population size and/or spatial distribution. Disturbance contributes to increased energetic expenditure, which can result in increased likelihood of mortality or reduced fitness (if energy expenditure is greater than energy gain) and, in turn, negatively impact population trends. Factors such as intensity, frequency, timing, and duration of a (direct or indirect) disturbance source must be taken into account to determine the potential impact upon the targets for population size and spatial distribution
Disturbance at areas ecologically connected to the colony	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact on breeding population	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific maintenance behaviours (e.g. courtship, bathing, preening), as defined in McSorley et al. (2003)
Barriers to connectivity	Number, location, shape, and area (ha)	Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	require regular and efficient access to marine waters ecologically connected to the colony in order to

#### **Conservation Objectives for : Inishtrahull SPA [004100]**

#### A045 Barnacle Goose *Branta leucopsis*

### To maintain the Favourable conservation condition of Barnacle Goose in Inishtrahull SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Winter population trend	Percentage change in number of individuals	Long term winter population trend is stable or increasing	The national population of wintering Barnacle Goose in Ireland has increased by 102% from 1993 - 2018 (Lewis et al., 2019) as monitored by the International Census of Greenland Barnacle Goose. During the baseline assessments to inform SPA designation, 292 Barnacle Goose were estimated to be using this SPA and Trawbreaga Bay SPA (4 year mean of census counts for baseline period 1993 - 2003; see NPWS, 2013). More recent data showed a population of 1,165 Barnacle Goose used these SPA during the period 2013 - 2023 (4 year mean of census counts from the International Census of Greenland Barnacle Goose). This represents a population increase of 299% since the baseline period, greater than the national trend
Winter spatial distribution	Hectares, time and intensity of use	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target	Distribution encapsulates the number of locations and area of potentially suitable habitat for the wintering population and its availability for use. The suitability and availability of habitat areas are likely to vary throughout the season, for example, due to variation in land management practices or the abundance of resources available (due to natural variation and other factors). This will affect the spatio-temporal patterns of use of the habitats by the wintering population
Disturbance at wintering site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution	The impact of any significant disturbance (direct or indirect) to the wintering population will ultimately affect the achievement of targets for population trend and/or spatial distribution. Disturbance contributes to increased energetic expenditure whic can result in increased likelihood of winter mortality or reduced fitness (if energy expenditure is greater than energy gain) and, in turn, negatively impact population trends (see, for example, Madsen and Fox, 1995). Factors such as intensity, frequency, timing and duration of a (direct or indirect) disturbance source must be taken into account to determine the potential impact upon the targets for population trend and spatial distribution
Barriers to connectivity and site use	Number, location, shape and hectares	Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA	Barriers limiting the population's access to this SPA or ecologically important sites outside the SPA will ultimately affect the achievement of targets for population trend and/or spatial distribution. Factors

Forage spatial distribution, extent and abundance	Location, hectares, and forage biomass	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	This species is a grazing herbivore. Historically, in Ireland, foraging habitat included salt marsh, but currently the species is typically associated with open coastal pasture, mostly improved and semi- improved agricultural grasslands. Barnacle Goose grazes on leaves, stems, rhizomes, roots and seeds, with grass and <i>Plantago/Bellis/Festuca</i> swards comprising preferred food sources (Cabot, 1973). This species selects a preferred sward height of <10cm but birds can feed on swards >15cm if preferred areas are depleted (based on birds in Islay, see Vickery and Gill, 1999). Birds are highly likely to exhibit foraging site fidelity and may be found foraging on offshore islands as well as commuting to forage on the mainland. Maximum foraging distance is approximately 7km for wintering birds (Doyle et al., 2023)
Roost spatial distribution and extent	Location and hectares of roosting habitat	Sufficient number of locations, area and availability of suitable roosting habitat to support the population target	Roosting is a critical ecological requirement for the wintering population. When roosting, this species uses open habitats (primarily pastures) that provide wide sightlines for the birds and which are typically adjacent to water bodies; thus, offshore islands are commonly used. Birds exhibit strong roost site fidelity (Doyle et al., 2023). Daytime roosting is also a common behaviour, where birds minimise activity levels to conserve energy, while benefitting from the vigilance of other flock members. A lack of sufficient and suitable roosting habitats can result in increased mortality risk, whether indirectly (e.g. via increased energy expenditure travelling to/from roost sites) or directly (e.g. via increased predation risk), or reduction in site use; this would ultimately affect the achievement of targets for population trend and/or spatial distribution
Supporting habitat: area and quality	Hectares and quality	Sufficient area of utilisable habitat available in ecologically important sites outside the SPA	The wintering population can make extensive use of suitable habitats in important areas outside the SPA for foraging and roosting. The extent, availability and quality of these supporting habitats may be of importance for the resilience of the SPA population. Suitable supporting habitats include those highlighted in the attributes for foraging and roosting habitat

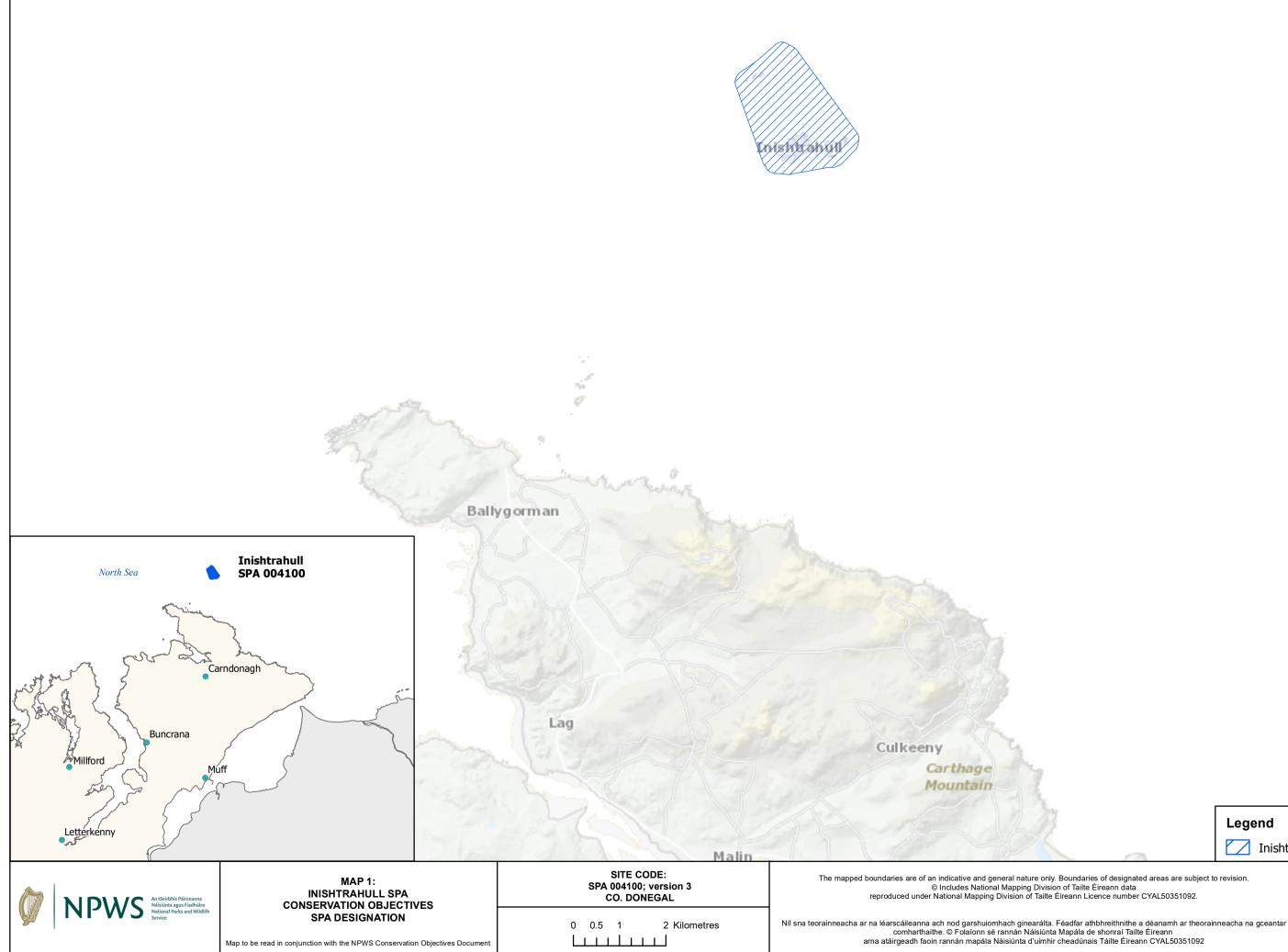
Page 11 of 13

#### A182 Common Gull *Larus canus*

# To maintain the Favourable conservation condition of Common Gull in Inishtrahull SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population size	Number of Apparently Occupied Nests (AON)	Long term SPA population trend is stable or increasing	Ussher and Warren (1900) and Kennedy et al. (1954) noted that the largest Common Gull coloniess in the 19th century were in Co. Donegal. In 1999 ar estimated 30 pairs nested on Inishtrahull (Mitchell et al., 2004). The breeding population decreased to 7 pairs in 2015 (Burnell et al., 2023; NPWS internal files). The population of Common Gull has been monitored annually between 2019 and 2024 as part of Inishtrahull Bird Observatory (IBO) monitoring work. In this time the Common Gull population has increased with counts ranging between 39 and 45 pairs, the highest counts on record for this SPA (IBO, 2025). The most recent population estimate in 2024 of 42 pairs represents a population increase of 40% since 1999 (IBO, 2025). The national population of Common Gull has increased by 89% between surveys in 1998 - 2002 and 2015 - 2021 (Burnell et al., 2023)
Productivity rate	Number of fledged young per breeding pair	Sufficient to maintain a stable or increasing population	There was no productivity data available for this species in this SPA. A lack of comprehensive Irish data precludes the identification of a minimum productivity rate for this species at the site and at the national level. Common Gull productivity in Scotland between 2000 and 2020 was below 0.6 chicks per breeding pair; in this time period the Scottish population of Common Gull was decreasing (Harris et al., 2024)
Distribution: extent of available nesting options within the SPA	Numbers and spatial distribution	Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Distribution encapsulates the number of locations and area of potentially suitable nesting habitat for the breeding population and its availability for use. The suitability and availability of habitat areas may vary through time. This will affect the spatio- temporal patterns of use of the habitats by Common Gull. Common Gull breeding near marine environments typically nest on small inshore rocky stacks, islets and islands, grassy and rocky slopes, sand dunes, and the foreshore (Moskoff et al., 2021). Within this SPA Common Gull typically nest in one cluster on the south side of the island
Forage spatial distribution, extent, abundance and availability	Location, hectares, and forage biomass	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Diet varies by location and season. Birds foraging in marine environments feed on fish and marine invertebrates (Moskoff et al., 2021). Based on several studies, Woodward et al. (2019) estimate that the maximum foraging range of a Common Gul from the nest site during the breeding season is 50km (see Power et al., 2021)
Disturbance at the breeding site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact on birds at the breeding site	Disturbance events at the nest site/breeding colony level can result in a reduction of overall productivity and even lead to the abandonment of the breeding colony. The impact of any significant disturbance (direct or indirect) to the breeding population will ultimately affect the achievement of targets for population size and/or spatial distribution. Disturbance contributes to increased energetic expenditure, which can result in increased likelihood of mortality or reduced fitness (if energy expenditur is greater than energy gain) and, in turn, negatively impact population trends. Factors such as intensity, frequency, timing, and duration of a (direct or indirect) disturbance source must be taken into account to determine the potential impact upon the targets for population size and spatial distribution. Common Gull may be vulnerable to recreational disturbance from visitors to the island

Disturbance at areas ecologically connected to the colony	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact on breeding population	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific maintenance behaviours (e.g. courtship, bathing, preening) as defined in McSorley et al. (2003). Additionally, some species may engage in maintenance behaviours outside of the breeding colony but not in the water
Barriers to connectivity	Number, location, shape, and area (ha)	Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Seabirds, particularly during the breeding season, require regular and efficient access to marine waters ecologically connected to the colony in order to forage, as well as, to engage in other maintenance behaviours. Based on several studies, Woodward et al. (2019) estimate that the maximum foraging range of a Common Gull from the nest site during the breeding season is 50km (see Power et al., 2021)



### Legend

Inishtrahull SPA 004100



Map version 1 Date: June 2024

