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National Parks and Wildlife Service

Conservation Objectives Series

Lough Cutra SPA 004056



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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

* indicates a priority habitat under the Habitats Directive

004056 Lough Cutra SPA

A017 Cormorant Phalacrocorax carbo

Please note that this SPA overlaps with Lough Cutra SAC (000299). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site 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.		
Series :	Unpublished report to NPWS		
Year :	2019		
Title :	The status of Ireland's breeding seabirds: Birds Directive article 12 reporting 2013 - 2018		
Author :	Cummins, S.; Lauder, C.; Lauder, A.; Tierney, T. D.		
Series :	Irish Wildlife Manual No. 114		
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		

Other References

Title :The status of seabirds in Britain and IrelandAuthor :Lloyd, C.; Tasker, M.L.; Partridge, K.Series :Poyser Monographs Volume: 50Year :1998Title :Flexible foraging techniques in breeding cormorants Phalacrocorax carbo and shags Phalacrocorax aristotelis: benthic or pelagic feeding?Author :Grémillet, D.; Argentin, G.; Schulte, B.; Culik, B.M.Series :Ibis, 140(1), pp.113-119Year :2003Title :Implications for seaward extensions to existing breeding seabird colony Special Protection AreasAuthor :McSorley, C.A.; Dean, B.J.; Webb, A.; Reid J.B.Series :JNCC Report No. 329Year :2004Title :Seabird populations of Britain and IrelandAuthor :Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.Series :Poyser, LondonYear :2005Title :Breeding performance and timing of breeding of inland and coastal breeding Cormorants Phalacrocorax carbo in England and Wales
Series :Poyser Monographs Volume: 50Year :1998Title :Flexible foraging techniques in breeding cormorants <i>Phalacrocorax carbo</i> and shags <i>Phalacrocorax aristotelis</i> : benthic or pelagic feeding?Author :Grémillet, D.; Argentin, G.; Schulte, B.; Culik, B.M.Series :Ibis, 140(1), pp.113-119Year :2003Title :Implications for seaward extensions to existing breeding seabird colony Special Protection AreasAuthor :McSorley, C.A.; Dean, B.J.; Webb, A.; Reid J.B.Series :JNCC Report No. 329Year :2004Title :Seabird populations of Britain and IrelandAuthor :Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.Series :Poyser, LondonYear :2005Title :Breeding performance and timing of breeding of inland and coastal breeding Cormorants
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Author : Newson, S.E.; Hughes, B.; Hearn, R.; Bregnballe, T.
Series : Bird Study, 52:1, 10-17, DOI: 10.1080/00063650509461369
Year: 2011
Title : A preliminary assessment of the potential impacts of Cormorant (<i>Phalacrocorax carbo</i>) predation on Salmonids in four selected river systems
Author : Tierney, N.; Lusby, J.; Lauder, A.
Series : Report Commissioned by Inland Fisheries Ireland and funded by the Salmon Conservation Fund

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 :	2020		
Title :	Great Cormorant (<i>Phalacrocorax carbo</i>), version 1.0. In Birds of the World (S. M. Billerman, Editor)		
Author :	Hatch, J.J.; Brown, K.M.; Hogan, G.G.; Morris, R.D.; Orta, J.; Garcia, E.F.J.; Jutglar, F.; Kirwan, G.M.; Boesman, P.F.D.		
Series :	Cornell Lab of Ornithology, Ithaca, NY, USA		
Year :	2021		
Title :	Definition of Favourable Conservation Status for Great Cormorant, Phalacrocorax carbo		
Author :	Newson, S.E.; Austin, G.		
Author : Series :	Newson, S.E.; Austin, G. Natural England, pp.25. ISBN: 978-1-78354-723-4		
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Conservation Objectives for : Lough Cutra SPA [004056]

A017 Cormorant *Phalacrocorax carbo*

To restore the Favourable conservation condition of Cormorant in Lough Cutra 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	A breeding seabird survey of this SPA was conducted in 2010/2011 and 2017 and no breeding Cormorant were recorded, which indicates a complete population collapse (Tierney et al., 2011; Cummins et al., 2019). A peak count of 166 pairs for this site, on Parsons Island, was recorded in 1985 (Lloyd et al., 1991). The population decreased by 80% to 34 pairs in 1996 and the breeding population was still present in 2000 (Mitchell et al., 2004; Burnell et al., 2023) before extirpation in subsequent years. This trend is dissimilar to the national trend, where the current estimate of 4,124 pairs (2015 - 2021), represents a long term increase of 4% from 1985 - 1988, but a decrease of 8% from 1998 - 2002 (Burnell et al., 2023). Overall this represents a broadly stable national population tren
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. Trewby et al. (2007) reported that the average productivity from Lambay Island SPA, a coastal colony, was $1.05 (\pm 0.11 \text{ SE})$ chicks fledged per AON in 2007 (69 pairs across three subplots). Further monitoring and research work is required in order to identify a minimum productivity rate for this species at this site and at the national level. In addition to the nominate Atlantic subspecie <i>P. c. carbo</i> which breeds in Ireland, the United Kingdom also holds the continental race <i>P. c. sinensis</i> , largely breeding at inland sites in England, and differences in productivity rates and overall population trends between these two subspecies have been noted (Newson and Austin, 2021; Newson et al., 2005; Burnell et al., 2023). Cormorant colonies in the UK fledged approximately 1.84 chicks per nest per year between 1989 and 2019 (JNCC, 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 across the SPA may vary through time. This will affect the spatio-temporal patterns of use of the habitats by Cormorant. Typically, inland Cormorant colonies are located in trees surrounded by or close to freshwate bodies (Newson and Austin, 2021). Historically, Cormorant have been subjected to widespread persecution in Britain and Ireland due to their large size and piscivorous diet (Burnell et al., 2023), this may have influenced the breeding distribution of thi species in certain areas. The Cormorant colony in this SPA was located on Parsons Island in Lough Cutra

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	Cormorant diet consists predominantly of small benthic and pelagic fish captured by pursuit diving, typically over shallow (<10m) freshwater, estuarine and marine environments (Grémillet et al., 1998; Hatch et al., 2020). Perch <i>Perca fluviatilis</i> , Roach <i>Rutilus rutilus</i> , Pike <i>Esox lucius</i> , salmonids, and trout were determined to be the main diet of Cormorant at Silver Island, a freshwater colony in Lough Derg (Tierney et al., 2011). Woodward et al. (2019) reviewed the foraging ranges of seabird species and provide estimates (i.e. overall mean; mean of maximum distances across all studies; and maximum distance recorded) of Cormorant foraging ranges from the nest site during the breeding season, which are 7km, 26km, and 35km respectively (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 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). Additionally, some species may engage in maintenance behaviours outside of the breeding colony but not in the water. Cormorant, after long periods in the water, may stand in areas away from the colony and engage in a behaviour known as wing-spreading. The main purpose of this behaviour is to dry plumage (Hatch et al., 2020) and may occur on sandbanks and small rocks and islets
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) provide estimates (i.e. overall mean; mean of maximum distances across all studies; and maximum distance recorded) of Cormorant foraging ranges from the nest site during the breeding season, which are 7km, 26km, and 35km respectively (see Power et al., 2021)



