

National Parks and Wildlife Service

Conservation Objectives Series

Stags of Broad Haven SPA 004072



NPWS

An tSeirbhís Páirceanna
Náisiúnta agus Fiadhúlra
National Parks and Wildlife
Service

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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*

004072 Stags of Broad Haven SPA

A014 Storm Petrel *Hydrobates pelagicus*

A015 Leach's Storm-petrel *Oceanodroma leucorhoa*

Supporting documents, relevant reports & publications

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

NPWS Documents

| | |
|-----------------|--|
| 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 |
| <hr/> | |
| Year : | 2022 |
| Title : | A survey of Manx Shearwater, European Storm and Leach's Petrels in NW Ireland: status and distribution on selected islands in 2021 |
| Author : | Colhoun, K. Collins, J.; Phelan, E.; Meneely, J.; O'Neill, J.; McClure, A.; O'Brien, I.; Carden, A. |
| Series : | Unpublished report to NPWS |
| <hr/> | |

Other References

- Year :** 1966
Title : Ireland's Birds: their distribution and migrations
Author : Ruttledge, R.F.
Series : Published by HF & G Witherby, London
-
- Year :** 1977
Title : Handbook of the Birds of Europe, the Middle East and North Africa. The birds of the Western Palearctic, Vol. 1
Author : Cramp, S.; Simmons, K.E.L.
Series : Oxford University Press, Oxford
-
- 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 :** 2021
Title : European Storm-Petrel (*Hydrobates pelagicus*), version 1.1. In Birds of the World (Editor not available)
Author : Carboneras, C.; Jutglar, F.; Kirwan, G.M.
Series : Cornell Lab of Ornithology, Ithaca, NY, USA
-
- Year :** 2021
Title : Leach's Storm-Petrel (*Hydrobates leucorhous*), version 1.1. In Birds of the World (Editor not available)
Author : Pollet, I.L.; Bond, A.L.; Hedd, A.; Huntington, C.E.; Butler, R.G.; Mauck, R.
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 :** 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
-

Conservation Objectives for : Stags of Broad Haven SPA [004072]

A014 Storm Petrel *Hydrobates pelagicus*

To restore the Favourable conservation condition of Storm Petrel in Stags of Broadhaven SPA, which is defined by the following list of attributes and targets:

| Attribute | Measure | Target | Notes |
|--|---|--|---|
| Breeding population size | Apparently Occupied Sites (AOS) | Long term SPA population trend is stable or increasing | Storm Petrel are small, nocturnal and nest underground on offshore islands which leads to difficulties in surveying this species and generating accurate population estimates. Survey methods and analytical methods for this species have changed between surveys and are likely to change in the future, requiring the use of new technology and innovative approaches (Burnell et al., 2023). Therefore, caution is required when comparing population estimates between surveys. Storm Petrel have been breeding at this SPA since at least the 1940s (Ruttledge, 1966). In 2001 a population of 1,912 Storm Petrel pairs was estimated to be present at this site (Mitchell et al., 2004). However, these surveys were conducted after the optimal survey period for this species. An estimated 503 pairs were record in 2021 (Colhoun, 2022), a potential decline since 2001. The population of Storm Petrel in Ireland over the same two time periods were 99,015 and 108,423 respectively, indicating a stable population |
| 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. There is a lack of published productivity estimates for this species. On Skellig Michael there is an ongoing programme of work to develop a method to produce robust productivity estimates for Storm Petrel at that site. In the UK there is insufficient data to produce productivity trends due to the difficulties involved in monitoring breeding success for this burrow and crevice nesting species (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 across the SPA may vary through time. This will affect the spatio-temporal patterns of use of the habitats by Storm Petrel. Storm Petrel breed on rocky ground on offshore islands and stacks, and occasionally on headlands (Carboneras et al., 2021). Storm Petrel use a range of nesting habitats, including natural crevices, under rocks and boulders, in stone walls, in self-excavated burrows, and in burrows originally excavated by other species (Cramp and Simmons, 1977). Storm Petrel were recorded breeding on three of the larger islands within this SPA, Teach Donal-Ó-Cleirigh, Teach Beg and Teach Mór. Storm Petrel playback responses were relatively even across the three surveyed islands (Colhoun et al., 2022) |
| 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 primary diet of the Storm Petrel is small fish (<i>Sprattus sprattus</i> , <i>Ammodytes marinus</i>), squid, and crustaceans (Carboneras et al., 2021). Based on several studies, Woodward et al. (2019) estimate a mean-max foraging range of 336km for Storm Petrel from the nest site during the breeding season (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) |
| 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 a mean-max foraging range of 336km for Storm Petrel from the nest site during the breeding season (see Power et al., 2021) |

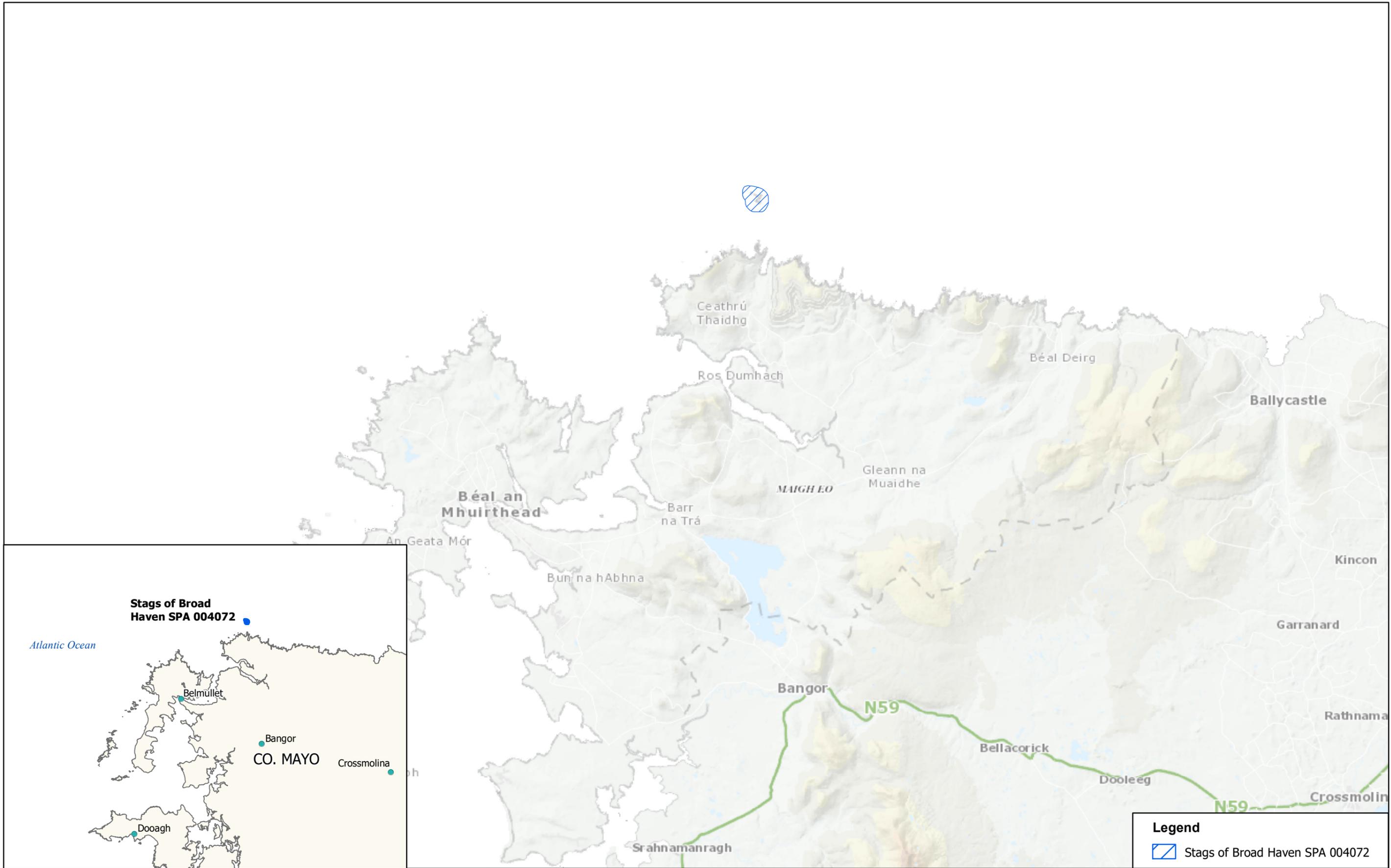
Conservation Objectives for : Stags of Broad Haven SPA [004072]

A015 Leach's Storm-petrel *Oceanodroma leucorhoa*

To maintain the Favourable conservation condition of Leach's Petrel in Stags of Broadhaven SPA, which is defined by the following list of attributes and targets:

| Attribute | Measure | Target | Notes |
|--|---|--|--|
| Breeding population size | Apparently Occupied Sites (AOS) | Long term SPA population trend is stable or increasing | Leach's Petrel are small, nocturnal, and nest underground on offshore islands leading to difficulties surveying this species and generating accurate population estimates. Both survey and analytical methods for this species have changed between surveys and are likely to change in the future, requiring the use of new technology and innovative approaches (Burnell et al., 2023). This site has been long considered to be the stronghold of this species in Ireland. Leach's Petrel have been breeding at this SPA since at least the 1940s (Ruttledge, 1966). In 2001, a population of 310 pairs was estimated to be present in this SPA (Mitchell et al., 2004), which was then considered to be the total national population. It should be noted that these surveys were conducted after the optimal survey period. An estimated 817 pairs were recorded in 2021, accounting for 95% of the Irish population (Colhoun et al., 2022). This may indicate that the SPA, and therefore national, population is increasing |
| 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. Leach's Petrel is Ireland's least studied seabird species, in part due to its restricted breeding range offshore on relatively inaccessible islands and sea stacks. Typical productivity rates for this species in Ireland is unknown. Similarly, in Britain there is insufficient data to produce productivity trends due to the difficulties involved in monitoring breeding success in a burrow and crevice nesting species (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 across the SPA may vary through time. This will affect the spatio-temporal patterns of use of the habitats by Leach's Petrel. Leach's Petrel typically breed on offshore islands that are free of predatory mammals. They can nest in burrows, under vegetation, and in rock crevices (Pollet et al., 2021; Harris et al., 2024). Leach's Petrel were recorded breeding on three of the larger islands within this SPA, Teach Donal-Ó-Cleirigh, Teach Beg and Teach Mór. Leach's playback responses were highest on Teach Beg (Colhoun et al., 2022) |
| 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 | Leach's Petrel are surface feeders with a wide diet including plankton, small fish, squid, and discards from fishery boats (Pollet et al., 2021; Harris et al., 2024). Based on several studies, Woodward et al. (2019) estimate a mean foraging range of 657km for Leach's Petrel from the nest site during the breeding season (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) |
| 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 a mean foraging range of 657km for Leach's Petrel from the nest site during the breeding season (see Power et al., 2021) |



Legend

 Stags of Broad Haven SPA 004072



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National Parks and Wildlife Service

**MAP 1:
STAGS OF BROAD HAVEN SPA
CONSERVATION OBJECTIVES
SPA DESIGNATION**

Map to be read in conjunction with the NPWS Conservation Objectives Document

**SITE CODE:
SPA 004072; version 3
CO. MAYO**

0 1.25 2.5 5 Kilometres



The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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**Map version 1
Date: July 2024**