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National Parks and Wildlife Service

Conservation Objectives Series

Doogort Machair SPA 004235

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***

004235	Doogort Machair SPA
A466	Dunlin *Calidris alpina schinzii*

Please note that this SPA overlaps with Doogort Machair/Lough Doo SAC (001497). 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 :	2008
Title :	Research of breeding Dunlin ecology associated with machair and upland NATURA 2000 sites in N.W. Mayo
Author :	Gamero, A.; McNaghten, L.; Suddaby, D.
Series :	Unpublished report to the National Parks and Wildlife Service, Dublin, Ireland
Year :	2010
Title :	Resurvey of breeding wader populations of machair and associated wet grasslands in north-west Ireland
Author :	Suddaby, D.; Nelson, T.; Veldman, J.
Series :	Irish Wildlife Manual No. 44
Year :	2013
Title :	A review of the SPA network of sites in the Republic of Ireland
Author :	NPWS
Series :	Published Report
Year :	2020
Title :	A survey of breeding waders on machair and other coastal grasslands in Counties Mayo and Galway
Author :	Suddaby, D., O'Brien, I., Breen, D. & Kelly, S.
Series :	Irish Wildlife Manuals No. 119

Other References

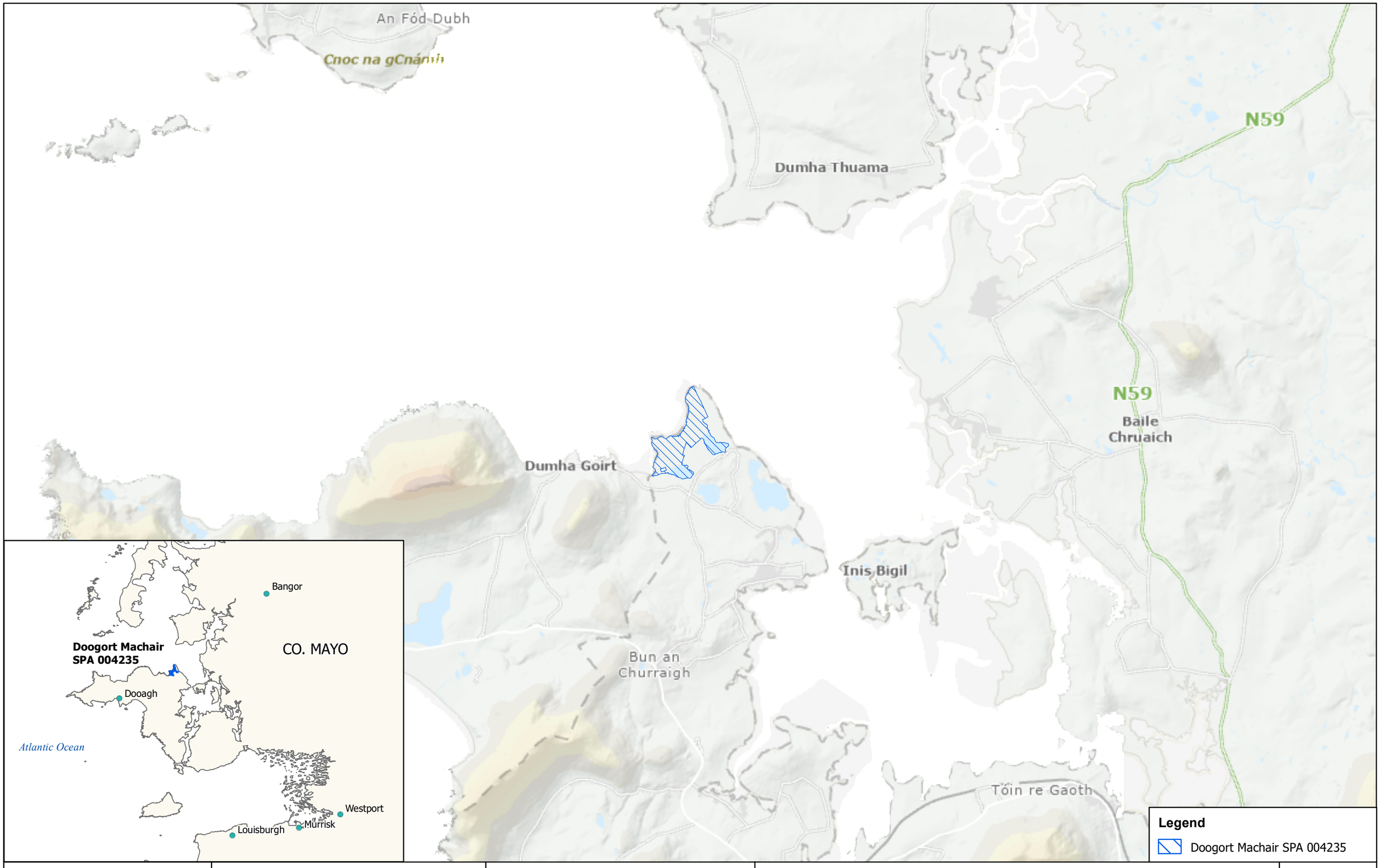
Year :	1985
Title :	Breeding waders of sand dune machair in north-west Ireland
Author :	Nairn, R.G.W.; Sheppard, J.R.
Series :	Irish Birds 3: 53-70
Year :	1998
Title :	Breeding waders of machair systems in Ireland in 1996
Author :	Madden, B.; Cooney, T.; O'Donoghue, A.; Norriss, D.W.; Merne, O.J.
Series :	Irish Birds 6: 177-191
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

A466 Dunlin *Calidris alpina schinzii*

To restore the Favourable conservation condition of Dunlin in Doogort Machair SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population trend	Percentage change in number of potential breeding pairs	Long term trend is stable or increasing	The national breeding population of Dunlin in Ireland is estimated to have declined by 93 - 94% between 1972 - 2019 (see EEA, 2019). Apparently Occupied Territory (AOT) is a standard metric used to represent breeding pairs. In 1985, 10 Dunlin AOTs were recorded in Doogort Machair SPA (Nairn and Sheppard, 1985), but this population declined to 2 AOTs in 1996 (Madden et al., 1998) and by 2009 the species no longer bred at the site (Suddaby et al., 2010 and 2020). Dunlin was not subsequently recorded breeding at the site until 2024 when a single pair was recorded, which successfully fledged two young (NPWS internal files). The re-colonisation of the site by breeding Dunlin and the success of the pair was most likely a direct result of the implementation of conservation measures (via the LIFE On Machair project) within this SPA. The breeding Dunlin population within the SPA ultimately declined by 90% between 1985 - 2024
Productivity rate	Number of young fledged per potential breeding pair	Sufficient productivity to maintain the population trend as stable or increasing	Productivity is a measure of breeding output and a key determinant in whether a population can maintain itself. It is defined here as the total number of young that are successfully reared to fledge (i.e. become independent of their parents) divided by the total number of potential breeding pairs (or AOTs), including failed pairs/females, in a given breeding season. A lack of comprehensive data precludes the identification of a minimum productivity rate required to maintain the breeding Dunlin population within the SPA or at national scale. It is likely, based on evidence from other nearby sites that supported breeding Dunlin (see, for example, Gamero et al., 2008), that poor productivity was a central factor in the noted population declines in this SPA (see also Suddaby et al., 2020)
Distribution of breeding habitat	Spatial distribution	No significant loss of distribution in the long term, other than that occurring due to natural patterns of variation	Dunlin breed in open, moist habitats, showing a preference for areas of vegetation interspersed with shallow pools or other standing or flowing water. They breed in upland and lowland blanket bog, other peatland habitats, coastal grasslands (such as machair), edges of lagoons and lakes, and other suitably open wetlands
Extent and condition of breeding habitat	Hectares of high quality breeding habitat	Sufficient area of high quality habitat to support the population target	Dunlin breed in open, moist habitats, showing a preference for areas of vegetation interspersed with shallow pools or other standing or flowing water. They breed in upland and lowland blanket bog, other peatland habitats, coastal grasslands (such as machair), edges of lagoons and lakes, and other suitably open wetlands. Dunlin nest on the ground in long or tussocky vegetation in which the nest is concealed. High-quality breeding habitat is considered as habitat in which Dunlin can successfully nest and rear young

Disturbance at breeding site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and distribution	The impact of any significant disturbance (direct or indirect) to the breeding population will ultimately affect the achievement of targets for population trend and/or spatial distribution of nesting and foraging habitat. 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. Disturbance contributes to increased energetic expenditure which can result in increased likelihood of mortality (in adults and chicks) or reduced breeding fitness of adults (if energy expenditure is greater than energy intake), and can thus negatively impact population trends. Disturbance is likely to have greatest impact at nesting sites and feeding areas for young, for example, increasing the mortality risk to eggs and young from predation, inclement weather and starvation
Barriers to connectivity and site use	Number, location, shape and hectares	Barriers do not significantly impact the breeding population's access to the SPA or other ecologically important sites outside the SPA	Barriers limiting the breeding population's access to this SPA or movement within the SPA may ultimately affect the achievement of targets for population trend and/or spatial distribution. Factors such as the number, location, shape and area of potential barriers must be taken into account to determine their potential impact
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	Dunlin forage exclusively at ground level and rely primarily on a wide variety of surface and sub-surface dwelling invertebrate prey. When breeding, diet is primarily adults and larvae of insects, including Diptera, craneflies, beetles, caddisflies, wasps, sawflies and mayflies. Dunlin will also feed upon spiders, mites, and earthworms. Foraging habitats include those habitats in which they breed (see Distribution of breeding habitat above)



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MAP 1:
DOOGORT MACHAIR SPA
CONSERVATION OBJECTIVES
SPA DESIGNATION

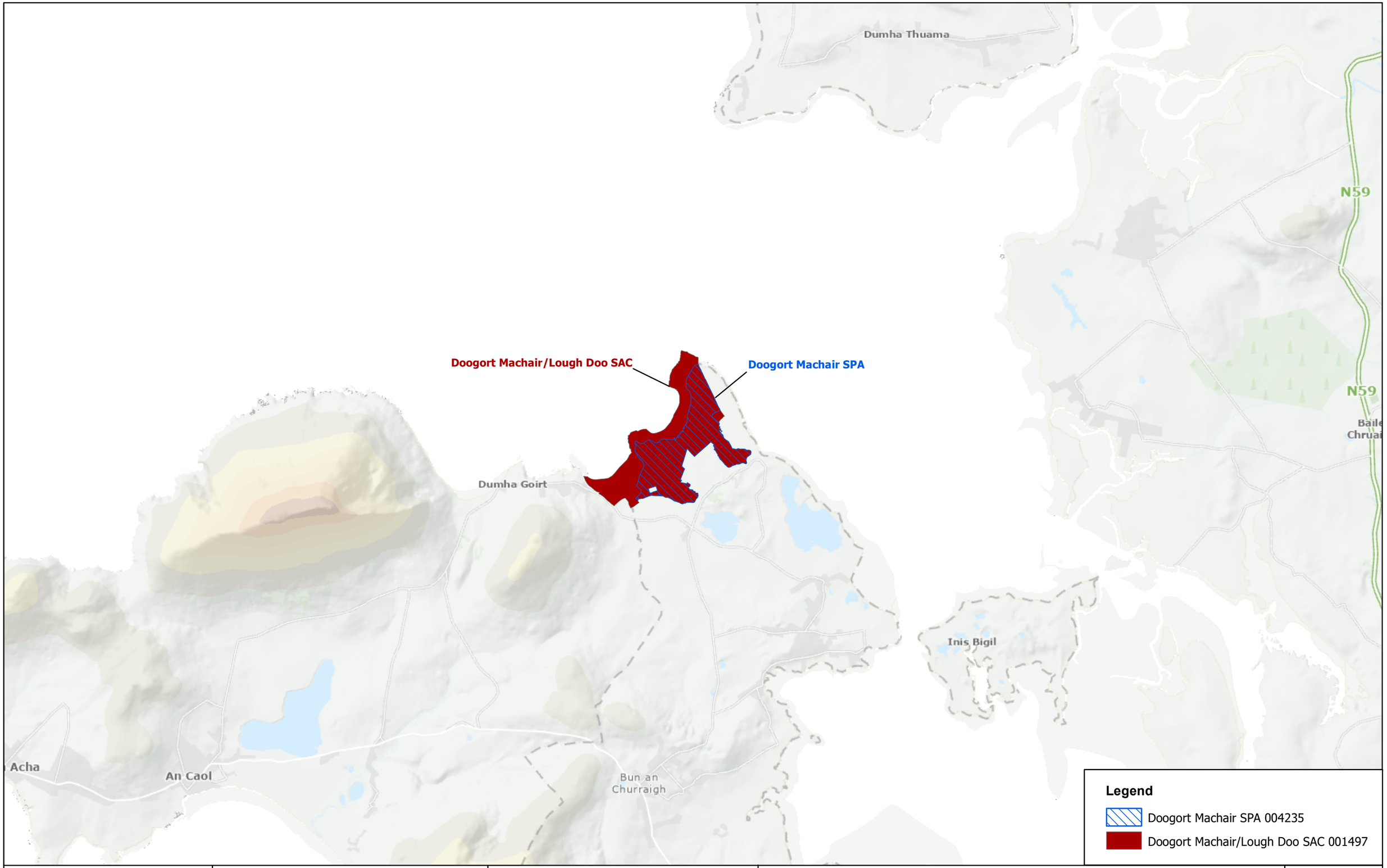
Map to be read in conjunction with the NPWS Conservation Objectives Document

SITE CODE:
SPA 004235; version 3.01
CO. MAYO

0 0.5 1 2 Kilometres

N

Map version 1
Date: January 2025



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MAP 2:
DOOGORT MACHAIR SPA
CONSERVATION OBJECTIVES
OVERLAPPING AND ADJACENT SITES

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

SITE CODE:
SPA 004235; version 3.01
CO. MAYO

0 0.5 1 2 Kilometres

N

Map version 1
Date: January 2025