NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2022

DURSEY ISLAND

for: **Fáilte Ireland**

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Contents

Dursey Island – Interesting Finds[1]

HIGHLIGHTS

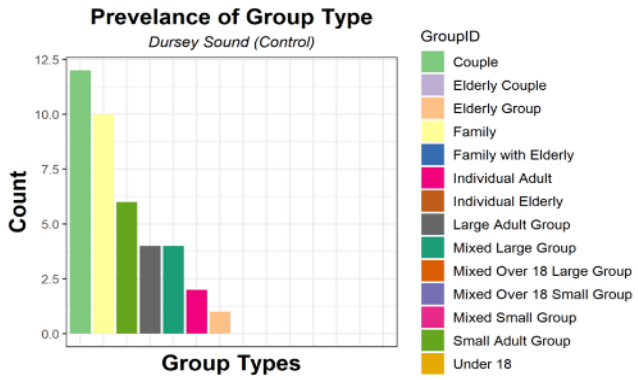
Cable Car Access and isolation create key visitor experiences. The key ecological feature of interest for the site is the Chough population which is known to forage at the far end of the Island where sheep grazing is providing the necessary management to cultivate the preferred foraging resources for the species.

As the site is an island, there are a variety of marine mammals that are often seen in the local waters such as minke whales, risso's dolphins and more common species such as grey seals and common dolphins.

The site also contains habitats provide ample foraging habitats for wintering bird species such as fulmar.

VISITOR NUMBERS AND DWELL TIME

- 140 people visited the site over 8 hours
- Average dwell time of 157 minutes



KEY RECOMMENDATIONS

- The island has a range of trails which are in need of monitoring, management and investment to ensure continued use does not cause further damage to the habitats. A dynamic path management system could alleviate the pressures which are occurring.
- Ensure visitor movement patterns at the west of the island – where the chough is known to forage – are managed appropriately.

VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site well controlled with strong management practices in place.
- Over 75% of all activities undertaken were considered to be low level activities such as picnicking and photography.
- Most of the visitors to the site stayed for at least 157 minutes –given the nature of the site as an island only accessible by cable car.
- Majority of visitors did not read available signage.

Highlights:

- The cable car is a key feature of the island.
- Important site for species such as the chough.
- Limited tourism infrastructure.
- High numbers of marine mammals recorded.
- Long site dwell time of at least 157 minutes.
- Site signage is limited – missed opportunity for wildlife and habitats.

[1] Based on 2021 findings

1 Dursey Island

1.1 Purpose & Outputs of the Programme

Building on the success of the Wild Atlantic Way (WAW) environmental monitoring programme which ran from 2015-2019 – Fáilte Ireland has decided to expand the programme to a national level. The programme will monitor 19 individual sites located in all of Fáilte Irelands regional areas; The Wild Atlantic Way, Irelands Hidden Heartlands, Irelands Ancient East and Dublin. The programme will run for 5 years from 2021-2025.

The sites that are included in the programme vary in type from inland forest parks, to coastal sites, to privately owned attractions and diverse urban locations - can be seen below.

The purpose of the programme is as follows:

- To gain more insight from an environmental perspective as to what is happening at a variety of sites where we encourage visitors to frequent,
- To gather information (visitor behaviour, movement, path and trail conditions, surveys for birds, flora etc) for each site over the course of 5 years,
- To understand if there are observable trends and/or observable variations amongst site types

over a 5-year period,
- To note good & bad practice at sites in order to;
- Make recommendations where appropriate for site management which is intended will have sustainable benefits for the site, the visitor and the natural environment.

The Wild Atlantic Way Environmental Monitoring Programme allowed us to monitor the behaviour & movement of over 26,000 visitors, identify where there were stresses on the environment or potential future risks as well as good and bad practice.

This culminated in our ability to make useful recommendations to site owners and managers and ultimately to development a practical set of Guidelines for Visitor management (from Planning thorough to Site Operation).

It is hoped that we can build on the learnings of this previous programme and by engaging with site managers, to knowledge share, can enhance the information that we gather for each site chosen nationally for this new programme.

The key areas of focus within the data being gathered is to answer the following questions:
- How do the learning outcomes from the WAW monitoring compare when using repeat measures at fixed locations over a long period? Hence, what are the predictors of impact occurrence and severity?
- Following on from the WAW monitoring data – with the refined methods we aim to understand what activities cause which impact; and what are the factors which influence these activity choices in visitors?
- Understanding visitor movement patterns with respect to ranging behaviours – i.e., is there a distance threshold where impacts are less severe or negligible?
- Undertake pathway condition assessments to understand the relative sensitivities or tolerances of path types to visitor movements – taking note of habitat type and visitor numbers/load capacity.

These questions will be answered upon completion of the full suite of surveys and data collected annually over the course of the monitoring programme. However, each year will have annual interim reports to enable emerging findings and management recommendation to be identified and shared with the relevant stakeholders to support progressive management practices.

1.1.1 Looking Ahead

The National Tourism Monitoring Programme aims to assess and characterise visitor movements and impacts in 19 popular Failte Ireland tourism sites across Ireland within a 5-year period. This will be achieved through building on the methodologies and findings of the Wild Atlantic Way Environmental Monitoring Programme (2015-2019), by monitoring yearly trends in visitor numbers and movements during the high tourism season at each site. In addition to the annual visitor trend monitoring; visitor impact assessments, which examine visitor activity levels relative to condition assessments, will also be taken every two years for each site. At the end of the 5-year period, the resultant extensive data set will be analysed for long term trends and correlations between visitor numbers, visitor activity, and site condition assessments, at each site across the 5 years of the programme.

This monitoring programme will allow an examination of year-on-year shifts in visitor impact and trends, across each of Fáilte Ireland's regional areas; The Wild Atlantic Way, Irelands Hidden Heartlands, Irelands Ancient East and Dublin, resulting in an annual interim report for each year - while also assessing visitors trends, and changes in the condition of the each of the sites' habitats in relation to visitor trends, over a the entire 5-year period of the programme.

The long-term aim of the Monitoring Programme will be to inform local authorities and stakeholders to help in the design and implementation of methods that will encourage the sustainable management of visitor numbers and tourism activities, while also aiming to protect vulnerabilities of the local area's habitats in order to reduce environmental impact and enable more effective local conservation of each site.

1.2 Methods & Surveys

The following surveys were undertaken at Dursey Island (Control):

1.2.1 Visitor Characterisation Survey

During the tourist season in 2022, Dursey Island was closed to visitors due to renovations and upgrades to the cable car system that provides access to the site. Thus, the visitor characterisation survey was not able to be completed in 2022 and will continue in 2023.

1.2.2 Ecological & Path Assessments

In addition to the visitor movement and behavioural records an ecological assessment and path network assessment was undertaken at each site. This consisted of mapping all tracks and trails – with records of hazards, notable damage etc. In addition to this, all habitats were mapped according to the Fossitt Habitat coding system while information on bird populations was gathered from National Biodiversity Centre Data.

1.3 Site Description of Dursey Island

Dursey Island is one of Cork's most westerly islands. Despite only being accessible by cable car from the Beara peninsula at Ballaghboy, is a popular destination for walkers. Dursey Island is completely within the Kenmare River SAC and despite its small size contains habitats such as montane heath and neutral grassland.

1.3.1 Critical Infrastructure

Table 1.1 Summary of Wastewater infrastructure at Dursey Island

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
There are no toilet facilities on site	N/A	Due to the nature of the site, wastewater facilities are not required There is also no capacity, as per January 2021 assessment in the Cork CDP 2022-2028[2]

Table 1.2 Summary of Drinking Water infrastructure at Dursey Island

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
Dursey Island has a water treatment scheme and a limited public main[3]	N/A	N/A	Current water supply is sufficient. However, the current water service does not reach the western end of the island[4]

Table 1.3 Summary of Transport infrastructure at Dursey Island

Nearest Settlement	Current Transport Infrastructure	Comment
The closest town to the island settlement is the main town of Castletownbere which is the main service centre for the Beara peninsula	Dursey Island is only accessible via a cable car system	Current transport infrastructure is sufficient

[2] https://www.corkcoco.ie/sites/default/files/2022-06/volume-5-west-cork.pdf
[3] https://www.corkcoco.ie/sites/default/files/2022-06/volume-5-west-cork.pdf
[4] https://www.corkcoco.ie/sites/default/files/2022-06/volume-5-west-cork.pdf

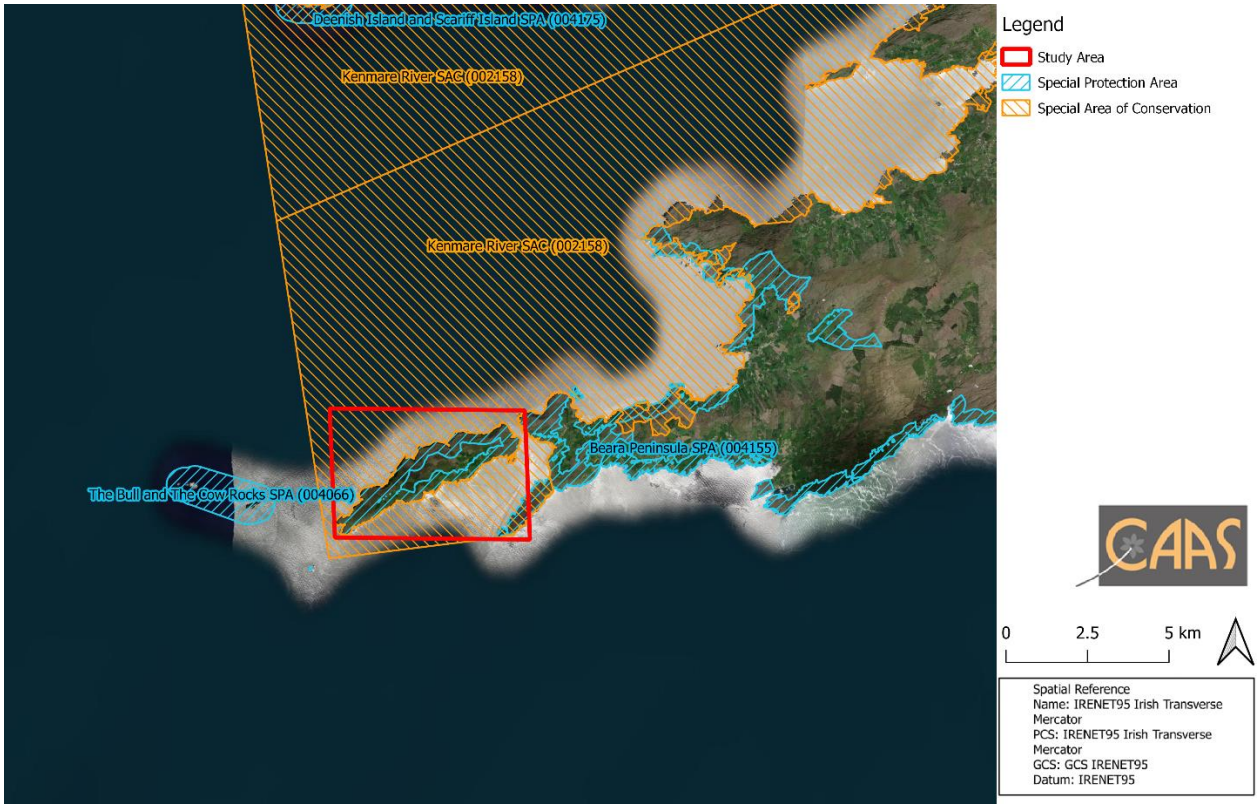
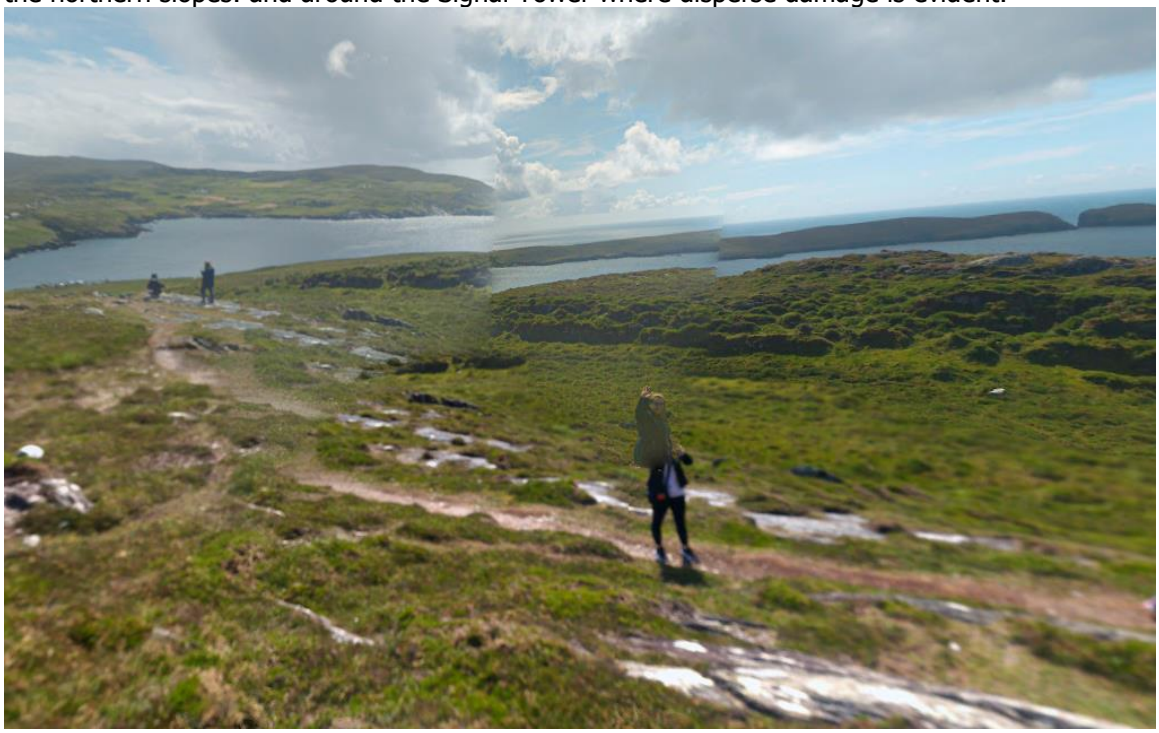


Figure 1.1 Study Area within Kenmare River SAC

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

The pathways at Dursey Island are a combination of even width hard infrastructure and small soft infrastructure paths. A varied amount of desire lines and eroded pathways which have been caused by human activity combined by sheep movement. Along these desire lines, fire damage was noticed due farmers burning land. The desire lines are particularly damaged at areas of steep incline along trails on the northern slopes. and around the Signal Tower where disperse damage is evident.



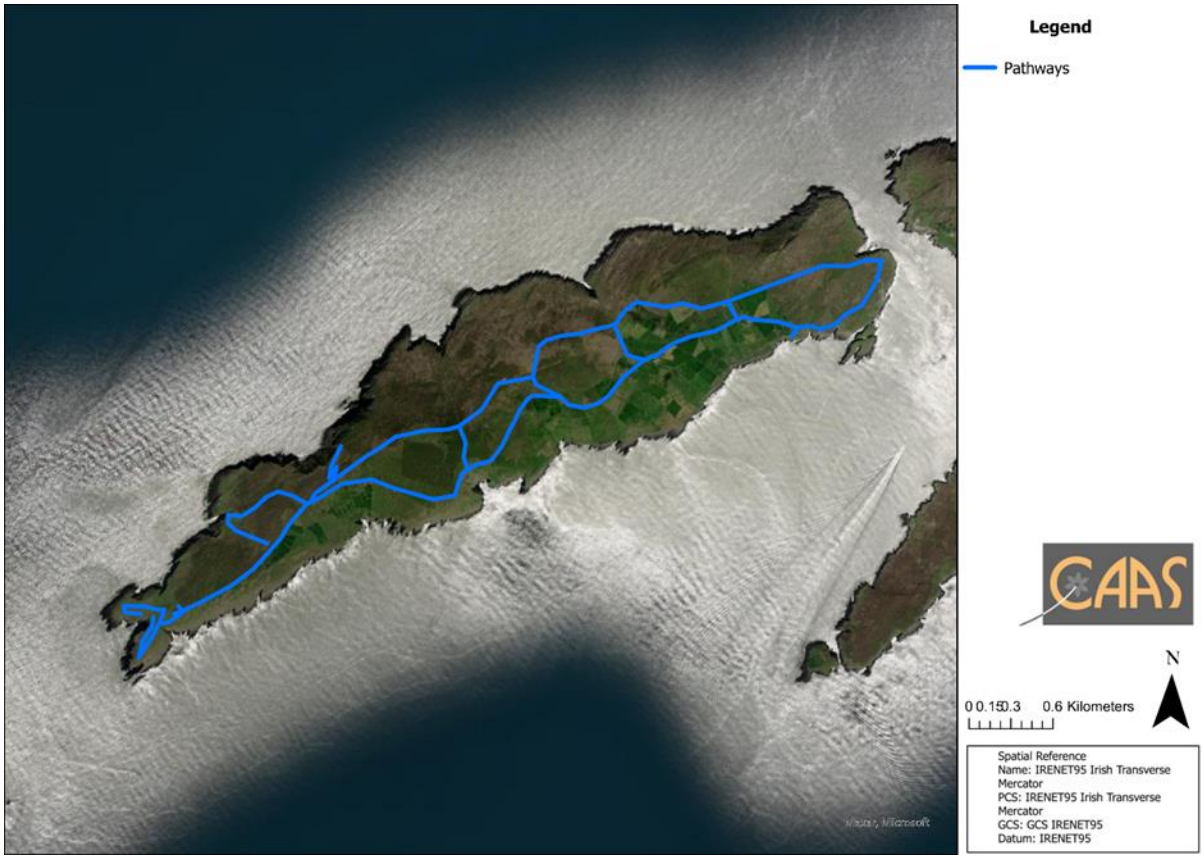


Figure 1.2 Pathways identified at Dursey Island (Control)

Figure 1.3 Main pathway across Dursey Island

1.4.2 Features Condition

The only features on site are signposts indicating trail directions and Dursey Island Signal Tower which is a disused structure. There is also a cable car on site which provides access to the site itself.

Figure 1.4 Features recorded at Dursey Island (Control)

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Figure 1.5 Dursey Signal Tower

1.4.3 Hazards

Other than unrestricted access to steep clifftop areas, no hazards were recorded at Dursey Island (Control).

1.5 Ecological Monitoring Results

1.5.1 Ecological Constraints

Habitats within 2km of Dursey Island are sensitive to hydrological changes, land use management, pollution, alien species and overgrazing. The species that reside in these habitats are sensitive to aquaculture, land use management, hydrological changes and anthropogenic disturbance.

Table 1.4 Designated sites within 2km of Dursey Island and relevant ecological receptors

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[000086]	Dursey Island pNHA	0.00	pNHA	
[004155]	Beara Peninsula SPA	0.00	SPA	Fulmar *(Fulmarus glacialis)* [A009], Chough *(Pyrrhocorax pyrrhocorax)* [A346]
[002158]	Kenmare River SAC	0.33	SAC	European dry heaths [4030], Narrow-mouthed whorl snail *(Vertigo angustior)* [1014], Calaminarian grasslands of the Violetalia calaminariae [6130], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Shifting dunes along the shoreline with *Ammophila arenaria* - white dunes [2120], Large shallow inlets and bays [1160], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Lesser horseshoe bat *(Rhinolophus hipposideros)* [1303], *Juniperus communis* formations on heaths or calcareous grasslands [5130], Otter *(Lutra lutra)* [1355], Submerged or partially submerged sea caves [8330], Reefs [1170], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Harbour seal *(Phoca vitulina)* [1365], Mediterranean salt meadows *(Juncetalia maritimi)* [1410]

1.5.2 Habitat Descriptions

The habitats at Dursey Island (Figure 1.6) can be broken down into two distinct sections across the island. The northern half of the island is designated as montane heath (Fossitt Code HH4) while the southern part of the island is mainly made up of agricultural grassland (Fossitt Code GA1) with sections of the southern part being made up of dense bracken (Fossitt Code HD1) and dry and calcareous grassland (GS1). These habitats provide habitat for the qualifying species, fulmar and chough, for which the SPA, Beara Peninsula, is designated.

Although there were no observable impacts from the visitor monitoring data there is evidence of trampling, compaction and erosion due to visitor movements at the site. It is thought that the impacts are associated with the repeat site usage and consistent imperceivable effects from each individual group over time. This is particularly evident at steep areas along the upper trail network and at the Signal Tower.

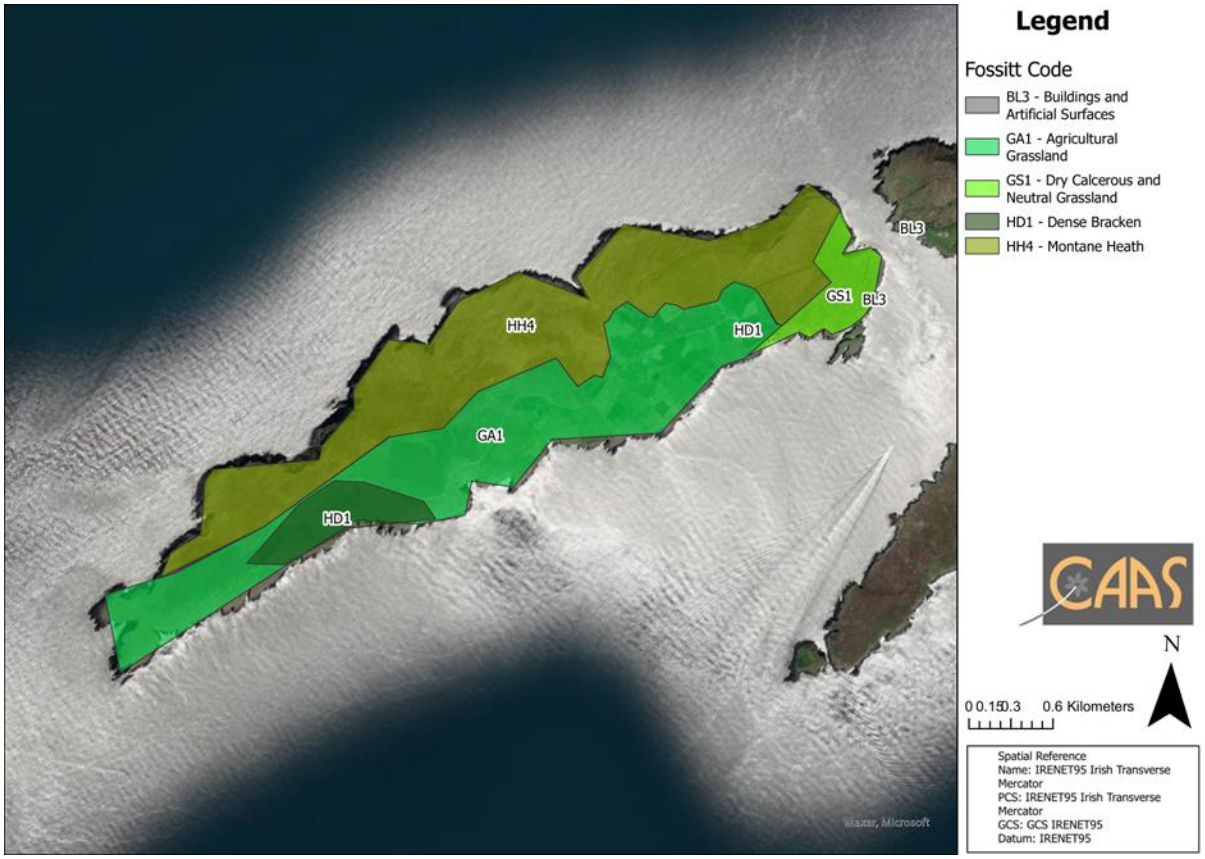

Figure 1.6 Habitats present at Dursey Island (Control)

1.5.3 Condition Assessment

Habitat condition assessments are an integral part of the National Tourism Monitoring Programme. They will allow an assessment of how habitat degradation due to human disturbance may relate to visitor monitoring data gathered at each of the 19 Failte Ireland sites for the duration of the programme.

Each habitat condition assessment will follow a rating scale, that has been designed specifically for this monitoring programme as a standardised, repeatable measurement for assessing habitat condition across all Failte Ireland sites (details on the full methodology are supplied in Appendix II of this report). In order to adequately capture possible changes to habitat condition at each site in relation to tourism activities, the habitat condition assessments will be conducted every second year of the 5-year monitoring programme. Carrying out this condition assessment every second year, creates a sufficient timescale for changes in site condition in relation to visitor movements and activities on site to become apparent, and therefore to be reflected in the resultant data.

The initial habitat condition assessments that will form the baseline for the programme's condition assessments for each of the 19 sites, were carried out in the inaugural year of this programme in 2021. The next year of habitat condition assessment will be conducted in 2023. Each assessments results will be detailed within their relevant year's interim report, with the overall analysis of trends in habitat condition in relation to visitor movements for every site reported in the final year of the monitoring programme in 2025.

1.5.4 NBDC Records of Mammals

Table 1.5 List of mammals that have been recorded at NBDC Hectads[5] V54, V44 & V43

Group	Common name	Scientific name	Number recorded
Marine mammal	Atlantic White-sided Dolphin	*Lagenorhynchus acutus*	4
Marine mammal	Bottle-nosed Dolphin	*Tursiops truncatus*	16
Marine mammal	Common Dolphin	*Delphinus delphis*	166
Marine mammal	Common Porpoise	*Phocoena phocoena*	79

[5] 10km^2 grid

Group	Common name	Scientific name	Number recorded
Marine mammal	Cuvier's Beaked Whale	*Ziphius cavirostris*	1
Marine mammal	Delphinidae	*Delphinidae*	1
Marine mammal	Fin Whale	*Balaenoptera physalus*	1
Marine mammal	Grey Seal	*Halichoerus grypus*	240
Marine mammal	Humpback Whale	*Megaptera novaeangliae*	3
Marine mammal	Long-finned Pilot Whale	*Globicephala melas*	3
Marine mammal	Minke Whale	*Balaenoptera acutorostrata*	133
Marine mammal	Phocidae	*Phocidae*	1
Marine mammal	Risso's Dolphin	*Grampus griseus*	114
Marine mammal	Sowerby's Beaked Whale	*Mesoplodon bidens*	1
Marine mammal	Sperm Whale	*Physeter macrocephalus*	1
Marine mammal	Striped Dolphin	*Stenella coeruleoalba*	1
Marine mammal	Walrus	*Odobenus rosmarus*	1
Terrestrial mammal	Bank Vole	*Myodes glareolus*	2
Terrestrial mammal	Brown Rat	*Rattus norvegicus*	2
Terrestrial mammal	Eurasian Badger	*Meles meles*	31
Terrestrial mammal	Eurasian Pygmy Shrew	*Sorex minutus*	3
Terrestrial mammal	European Otter	*Lutra lutra*	10
Terrestrial mammal	European Rabbit	*Oryctolagus cuniculus*	4
Terrestrial mammal	Feral Goat	*Capra hircus*	2
Terrestrial mammal	Irish Hare	*Lepus timidus subsp. hibernicus*	2
Terrestrial mammal	Irish Stoat	*Mustela erminea subsp. hibernica*	2
Terrestrial mammal	Red Fox	*Vulpes vulpes*	3
Terrestrial mammal	Sika Deer	*Cervus nippon*	1
Terrestrial mammal	Wood Mouse	*Apodemus sylvaticus*	1

1.5.5 NBDC Records of Wintering Birds

Table 1.6 List of wintering birds that have been recorded at NBDC Hectads[6] V54, V44, & V43

Group	Common name	Scientific name	Number recorded
Bird	American Golden Plover	*Pluvialis dominica*	3
Bird	Arctic Tern	*Sterna paradisaea*	2
Bird	Atlantic Puffin	*Fratercula arctica*	23
Bird	Balearic Shearwater	*Puffinus mauretanicus*	4
Bird	Bar-tailed Godwit	*Limosa lapponica*	1
Bird	Black-headed Gull	*Larus ridibundus*	7
Bird	Black-legged Kittiwake	*Rissa tridactyla*	105
Bird	Black Guillemot	*Cepphus grylle*	27
Bird	Cattle Egret	*Bubulcus ibis*	3
Bird	Common Crane	*Grus grus*	2
Bird	Common Greenshank	*Tringa nebularia*	6
Bird	Common Guillemot	*Uria aalge*	144
Bird	Common Moorhen	*Gallinula chloropus*	1
Bird	Common Redshank	*Tringa totanus*	6
Bird	Common Sandpiper	*Actitis hypoleucos*	3
Bird	Common Scoter	*Melanitta nigra*	1
Bird	Common Snipe	*Gallinago gallinago*	17
Bird	Common Tern	*Sterna hirundo*	1
Bird	Cory's Shearwater	*Calonectris diomedea*	5
Bird	Eurasian Curlew	*Numenius arquata*	9
Bird	Eurasian Dotterel	*Charadrius morinellus*	7
Bird	Eurasian Oystercatcher	*Haematopus ostralegus*	36
Bird	Eurasian Teal	*Anas crecca*	2
Bird	Eurasian Wigeon	*Anas penelope*	1
Bird	Eurasian Woodcock	*Scolopax rusticola*	9
Bird	European Golden Plover	*Pluvialis apricaria*	7
Bird	European Shag	*Phalacrocorax aristotelis*	41
Bird	European Storm-petrel	*Hydrobates pelagicus*	34
Bird	Fea's Petrel	*Pterodroma feae*	1
Bird	Glaucous Gull	*Larus hyperboreus*	7

[6] 10km^2 grid

Group	Common name	Scientific name	Number recorded
Bird	Great Black-backed Gull	*Larus marinus*	51
Bird	Great Cormorant	*Phalacrocorax carbo*	30
Bird	Great Northern Diver	*Gavia immer*	8
Bird	Great Snipe	*Gallinago media*	1
Bird	Grey Heron	*Ardea cinerea*	13
Bird	Grey Phalarope	*Phalaropus fulicarius*	1
Bird	Herring Gull	*Larus argentatus*	66
Bird	Iceland Gull	*Larus glaucoides*	7
Bird	Jack Snipe	*Lymnocryptes minimus*	6
Bird	King Eider	*Somateria spectabilis*	2
Bird	Larus	*Larus*	1
Bird	Lesser Black-backed Gull	*Larus fuscus*	35
Bird	Little Auk	*Alle alle*	1
Bird	Little Grebe	*Tachybaptus ruficollis*	2
Bird	Little Plover	*Charadrius dubius*	1
Bird	Macaronesian Shearwater	*Puffinus baroli*	1
Bird	Mallard	*Anas platyrhynchos*	9
Bird	Manx Shearwater	*Puffinus puffinus*	67
Bird	Mediterranean Gull	*Larus melanocephalus*	2
Bird	Mew Gull	*Larus canus*	14
Bird	Mute Swan	*Cygnus olor*	1
Bird	Northern Fulmar	*Fulmarus glacialis*	187
Bird	Northern Gannet	*Morus bassanus*	472
Bird	Northern Lapwing	*Vanellus vanellus*	11
Bird	Northern Parula	*Parula americana*	2
Bird	Northern Shoveler	*Anas clypeata*	1
Bird	Purple Sandpiper	*Calidris maritima*	3
Bird	Razorbill	*Alca torda*	90
Bird	Red-breasted Merganser	*Mergus serrator*	1
Bird	Red-throated Diver	*Gavia stellata*	5
Bird	Ringed Plover	*Charadrius hiaticula*	9
Bird	Ruddy Turnstone	*Arenaria interpres*	10
Bird	Sanderling	*Calidris alba*	2
Bird	Sandwich Tern	*Sterna sandvicensis*	1
Bird	Sooty Shearwater	*Puffinus griseus*	7
Bird	Sterna	*Sterna*	3
Bird	Stone-curlew	*Burhinus oedicnemus*	1
Bird	Upland Sandpiper	*Bartramia longicauda*	1
Bird	Water Rail	*Rallus aquaticus*	4
Bird	Whimbrel	*Numenius phaeopus*	1
Bird	White-rumped Sandpiper	*Calidris fuscicollis*	1
Bird	White-throated Dipper	*Cinclus cinclus*	6

1.6 Recommendations

- The island has a range of trails which are in need of monitoring, management and investment to ensure continued use does not cause further damage to the habitats.
- A dynamic path management system could alleviate the pressures which are occurring.
- Ensure visitor movement patterns at the west of the island – where the chough is known to forage – are managed appropriately.

Appendix I

Activities		
Category 1 Low Level		
Walking, running or cycling on paths, marked trails or hard surfaces		LA 1
Walking, running, cycling or playing in mown grass, managed grassland or level sand		LA 2
Sitting on benches, walls, mown grass, sand		LA 3
Swimming, sailing, surfing, kayaking in water		LA 4
Resting, reading, looking, picnicking, sightseeing, painting, photographing		LA 5
Vehicular movement on roads and parking areas		LA 6
Watching nature in hedges, woods, streams, pools and intertidal areas		LA 7
Category 2 Medium Level		
Powered movement through water		MA 1
Any movement leaving an existing trail or marked path		MA 2
Any movement leaving a trail through leafy vegetation		MA 3
Any movement leaving a trail through woody vegetation		MA 4
Climbing on walls, loose stones, sand, soil etc.		MA 5
Fishing		MA 6
Category 3 High Level		
Walking through wet/muddy soil		HA 1
Scrambling on steep or loose slopes		HA 2
Off road vehicular movement		HA 3
Disturbance of wildlife		HA 4
Deliberate building or moving or knocking site materials - parts of monuments, walls, stones, sand etc.		HA 5
Picking herbaceous vegetation		HA 6

Appendix I Activity and impact code index used for recording visitor behaviours on site

Category 1 Low Impact		
No identifiable effect		LIE 1
Desire lines or trails visible on grass and leafy vegetation		LIE 2
Temporary disturbance (including chasing and feeding) of insects, fish, amphibian, reptiles, insects, birds and mammals		LIE 3
Temporary change of character - due to the appearance or nature of activities (noise, crowds, etc.)		LIE 4
General/light littering		LIE 5
Category 2 Medium Impact		
Desire lines or tracks visible outside of existing trail or marked path		MIE 1
Trampling of herbaceous vegetation		MIE 2
Damage to woody vegetation		MIE 3
Incidentally moving or knocking site materials - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.		MIE 4
Addition/alteration of site features, transient emissions, noise		MIE 5
Transient disturbance, emissions, noise		MIE 6
Disturbance of wildlife		MIE 7
Category 3 Severe Impact		
Direct interference with site material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.		SIE 1
Removal of material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.		SIE 2
Vandalism or graffiti		SIE 3
Destruction of structures, vegetation or fauna		SIE 4
Heavy littering or dumping quantities of waste		SIE 5
Burning materials or lighting a fire		SIE 6
Injuring, killing or taking wildlife		SIE 7

Appendix II

Habitat Condition Assessment Methodology

A rating scale has been designed for this monitoring programme as a standardised, repeatable measurement for assessing habitat condition across all sites[7]. For the purposes of this monitoring programme, habitat condition is assessed at every site by the surveyor examining four core criteria:

1. The extent to which habitat degradation (due to human activity), if any, is observed;
2. If habitat degradation is observed, the degree to which the impact is localised or widespread;
3. The potential ability for the habitat to recover (related to scale of degradation); and,
4. The requirement for intervention (related to the degree of the previous 3 elements).

For these assessments the term 'degradation' is taken to mean any change that reduces the long-term viability habitats and its qualifying interests [flora and fauna]. Degradation can include readily visible evidence of factors such as surface erosion or compaction, vegetation loss, crowd disturbance [noise], disturbance by pets, littering, burning or pollution.

Based on these four criteria, each site is walked along transects established by the principal pathways that are used for visitor access and movement through each site. At 100 metres intervals along the selected pathways, an assessment of habitat condition is made, using an established rating scale of 1 to 5; 1 being no impact and 5 being high impact. Each rating is then translated into a condition assessment, as displayed in Table II - 1 below.

These ratings are gathered for each site, and are then grouped; from which the mode is taken (i.e., the rating that occurs most frequently. This then recorded and reported as the resultant overall rating of the assessed habitat condition assessment for each site.

Table II-1 Habitat rating scale and condition assessment

Scale	Condition
1	No evidence of any habitat degradation observed.
2	Localised habitat degradation, but slight and capable of rapid recovery.
3	Widespread habitat degradation, but slight and capable of rapid recovery.
4	Localised habitat degradation, requiring intervention to allow full recovery.
5	Widespread habitat degradation, requiring intervention to allow full recovery.

[7] Note: Where possible, the same surveyor is used across multiple sites – but in some instances, different surveyors survey different sites. This can lead to a human variation in the assigning of the rating scale for impact. However, there will be sufficient repetition of the data through the several years of the monitoring programme to account for any variations in human interpretation on this scale.