NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2021

FANAD

for: **Fáilte Ireland**

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Contents

Fanad – Interesting Finds

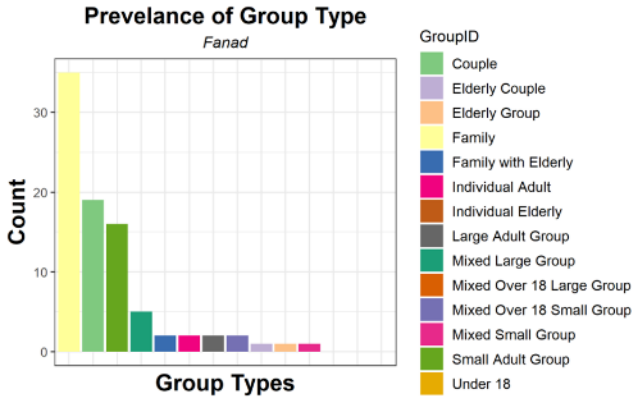
ECOLOGICAL HIGHLIGHTS

Fanad Head is a noted whale watching site. There is high quality heathland habitat surrounding Fanad. This habitat supports special conservation interest species for which Fanad is designated such as chough.

The coastal area itself plays host to a number of marine mammal species such as bottle nosed dolphins and grey seals, while there have been sightings of passing fin whale, minke whale, orcas, dolphins and porpoise

VISITOR NUMBERS AND DWELL TIME

- 311 people visited the site over 8 hours
- Average dwell time of 35 minutes



KEY RECOMMENDATIONS

- Path areas at entries should be reinforced and managed to reduce compactions and de-vegetation.
- Access to hazardous cliff top areas should be managed.
- The habitats on site could be managed for increased coastal diversity through bespoke heathland management practices to increase the floral diversity.
- Additional interpretation material focusing on the ecological landscape and important features of the area could increase engagement with the site.

VISITOR INTERACTION & MANAGEMENT

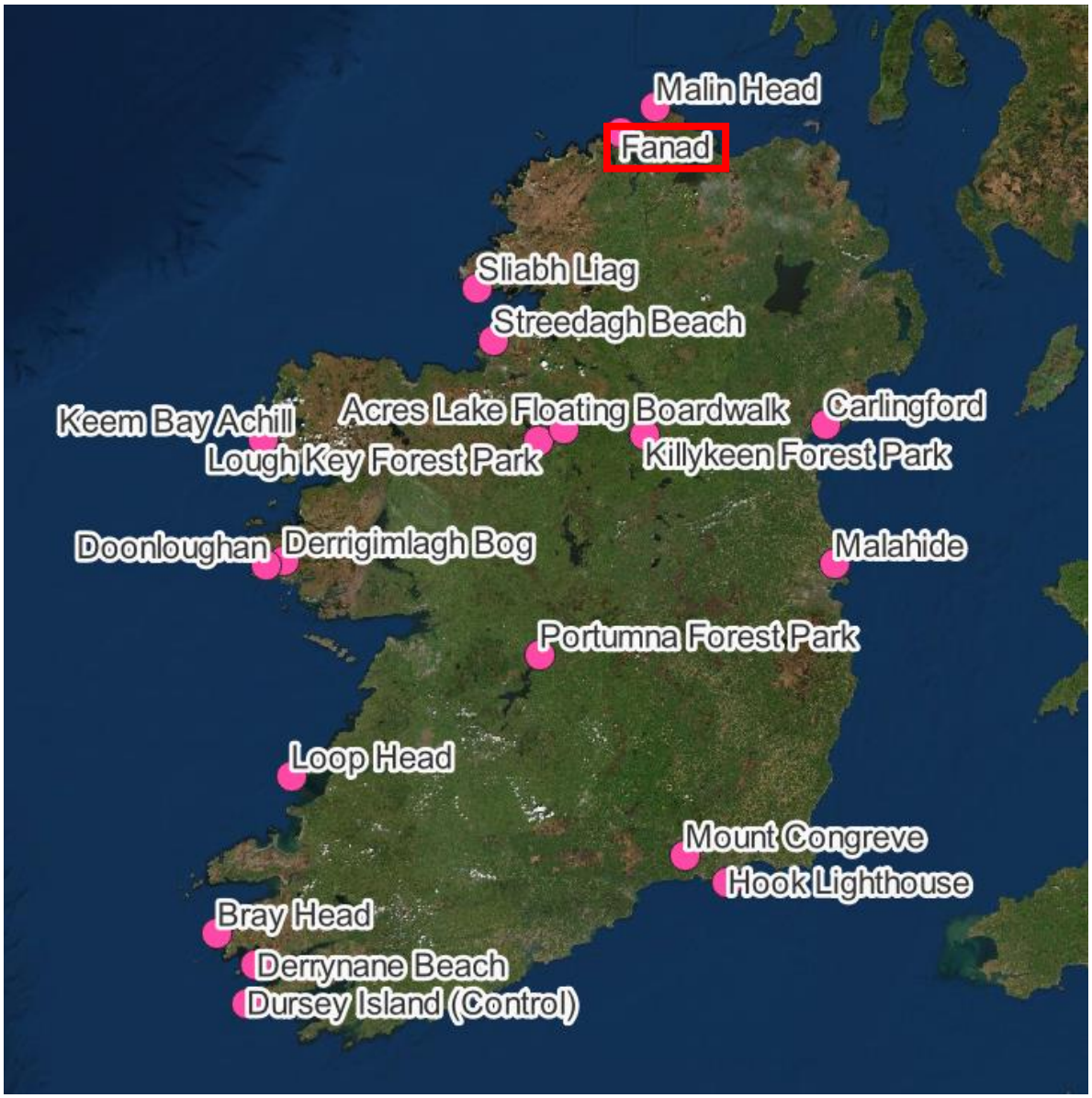
- Visitor interactions on site well controlled with strong management practices in place.
- Over 60% of all activities undertaken were considered to be low level activities such as picnicking and photography.
- Majority of visitors only undertook walking on site.
- Most of the visitors to the site stayed for at least 35 minutes –given the nature of the site as a small cliff area with a lighthouse.
- Majority of visitors read signage that was available on site.

1 Fanad

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.

1.2 Methods & Surveys

The following surveys were undertaken at Fanad:

1.2.1 Visitor Characterisation Survey

Visitor characterisation surveys were undertaken at each of the monitoring sites during the weekend period between June-August. The survey at Fanad was undertaken on the 11th of July 2021, with max temperatures reaching approximately 18.6° C, low levels of rainfall and low levels of wind on the day[1]. These surveys followed an 8-hour time period recording samples of visitor behaviour of an many visitors on site as possible. Visitor movement patterns, demographic data and activities undertaken were recorded for all sampled visitors. Where activities had associated impacts, these were also recorded and the relevant severity was recorded using the same coding system as with the WAW monitoring (see Appendix I for details). It is important to note that the visitor characterisation surveys are indiscriminate between visitors and local amenity use.

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] Weather data gathered from: https://www.met.ie/climate/available-data/historical-data

1.2.3 Other Surveys

Additional sample surveys were undertaken at Fanad to identify the species presence of wintering birds and mammals. This information can inform potential management actions related to amenity services such as lighting which could conflict with sensitive species on site.

1.3 Site Description of Fanad

Centred on Fanad Lighthouse, this Discovery Point also directs visitors to views and trails along the rocky Atlantic shore. The site is contained within both the Ballyhoorisky Point to Fanad Head SAC along with the Horn Head to Fanad Head SPA and contains large areas of dry siliceous heath.

Figure 1.1 Fanad

Ballyhoorisky Point to Fanad Head SAC

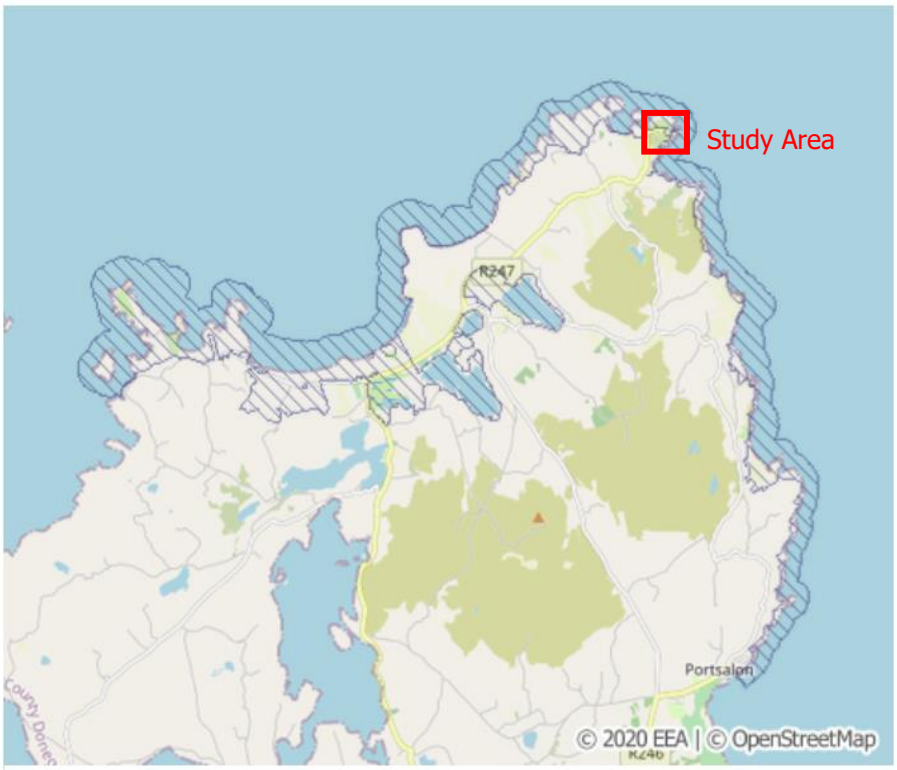


Figure 1.2 Study Area within Ballyhoorisky Point to Fanad Head SAC

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

Due to the small size and complex surfaces at this site there are not many designated pathways. There is a road (Figure 1.4) at the site along with highly varied soft infrastructure pathways and desire lines, which have seen compaction to the soil due to use of vehicles and a large number of walkers in the area.

Figure 1.3 Pathways identified at Fanad

Figure 1.4 Pathways at Fanad

1.4.2 Features Condition

At Fanad, there are various tourism signage, including information signs giving information on the surrounding area and trails as well as road signs and a sign designating Fanad as part of the Wild Atlantic Way (Figure 1.6). Along with the noted lighthouse, there are also abandoned buildings in the area. In terms of amenities, there is a Visitor Centre, car park, toilets and cafe.

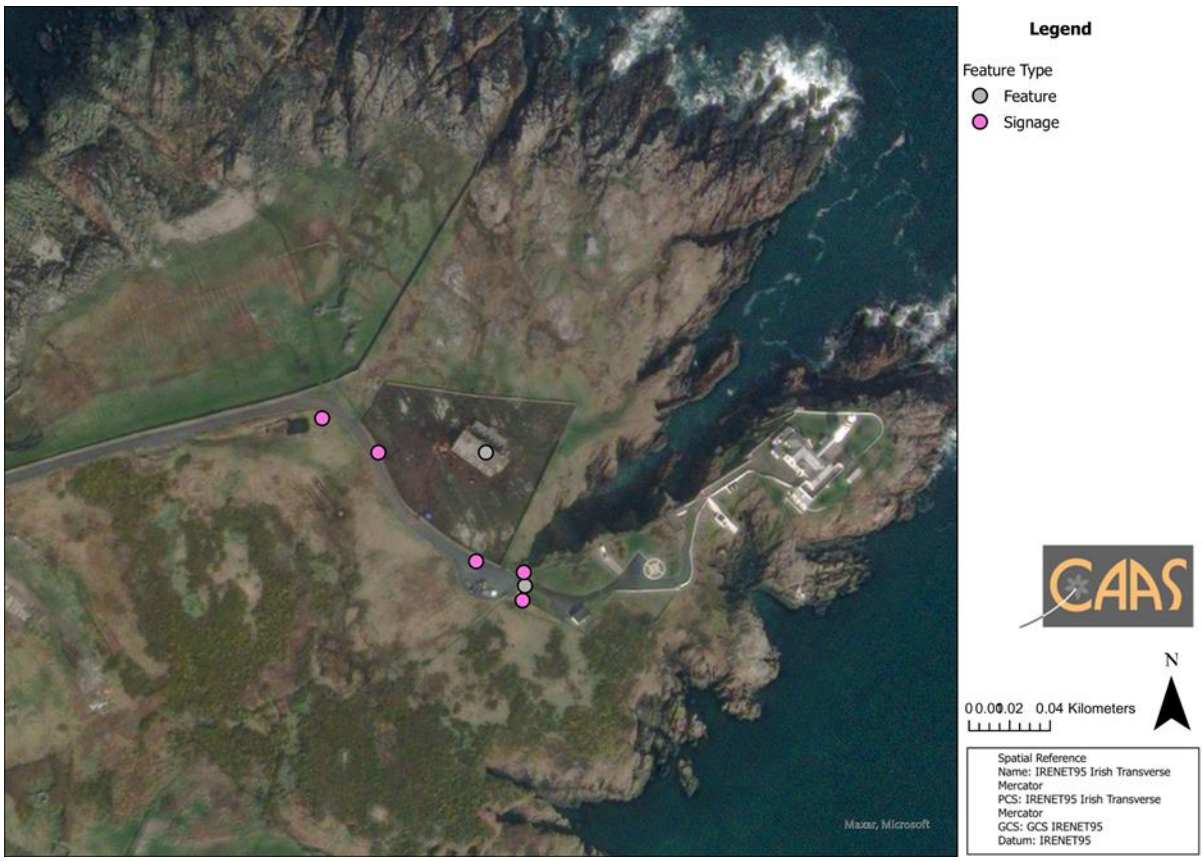


Figure 1.5 Features recorded at Fanad

Figure 1.6 Features at Fanad

1.4.3 Hazards

In terms of hazards, it was noted that a broken fence led to an unprotected cliff edge (Figure 1.8) that showed signs of regular activity. This was the only hazard that was recorded during habitat mapping.

Figure 1.7 Hazards recorded at Fanad

Figure 1.8 Hazard at Fanad

1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 311 visitors (which represent 86 group observations). The site is most popular amongst the Family group with the dominant mode of transport being car. The average dwell time for the site was 35 minutes; with the following activities undertaken during the survey (listed in order of occurrence rate):

Activity Type
Photographing
Exploring off trail
Picnicking
Dog walking (on lead)
Sitting
Flying drone
Wheelchair user
Baby buggy
Birdwatching
Fishing
Frisbee/ Catch

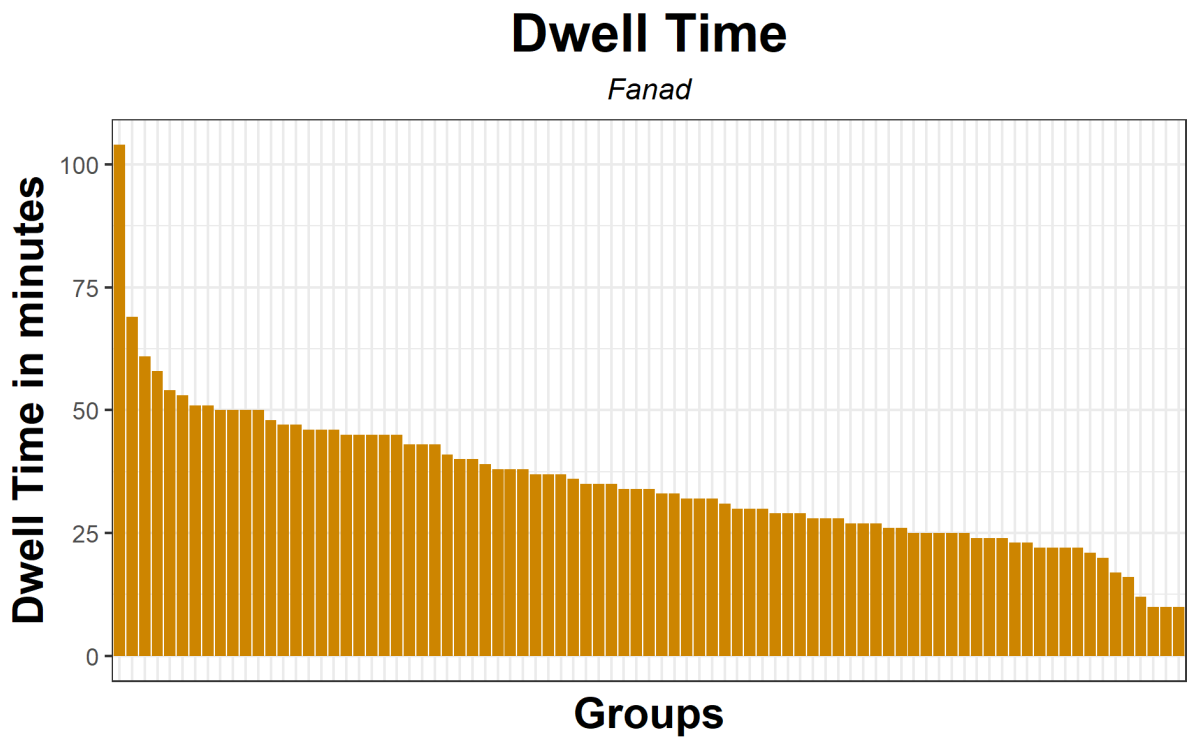


Figure 1.9 Duration of Time Spent at Fanad

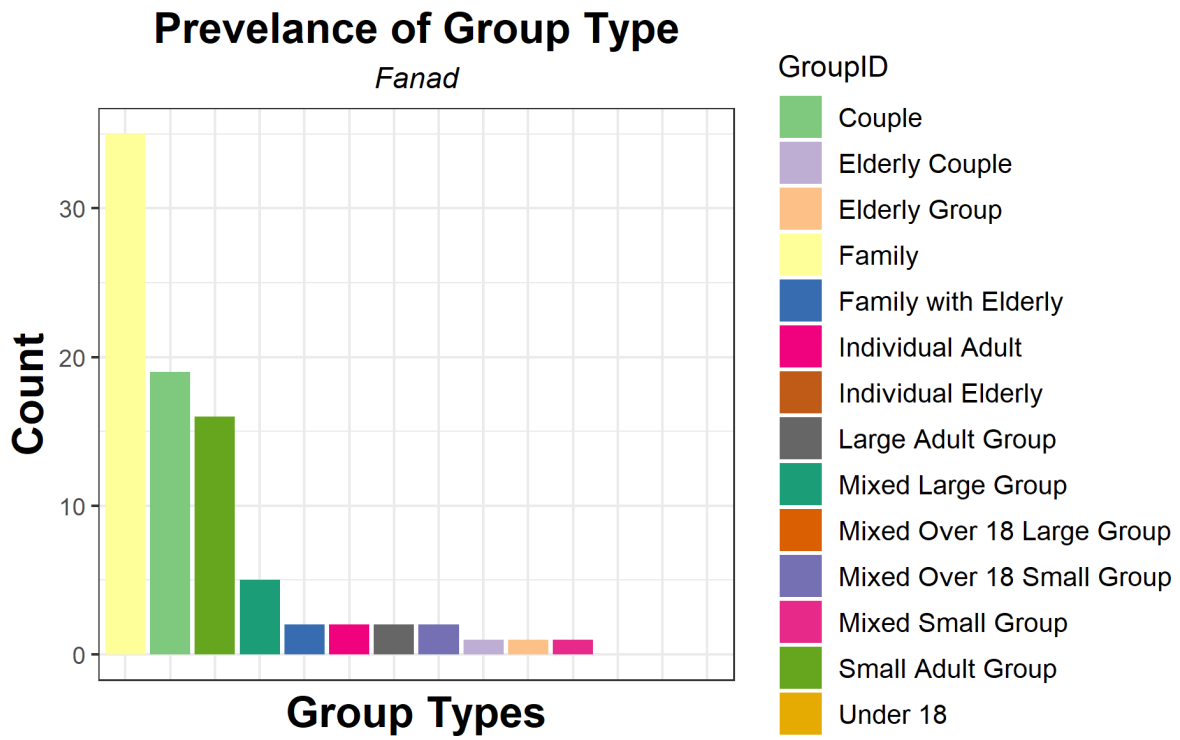


Figure 1.10 Groups of visitors that visited Fanad

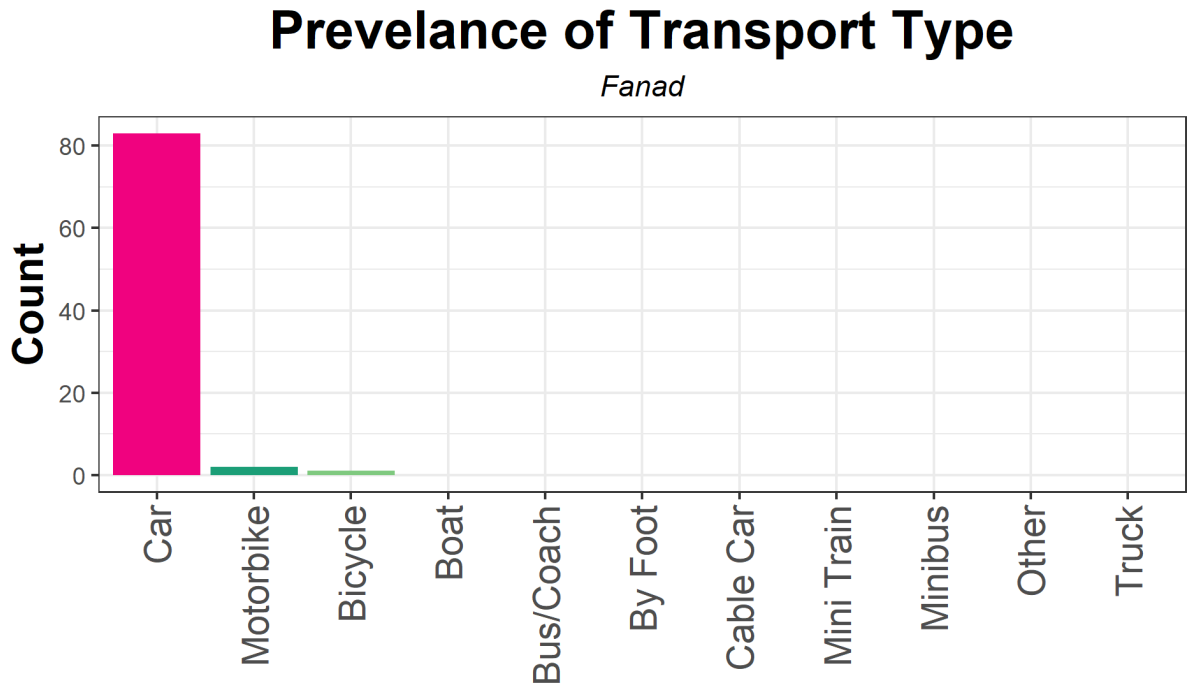


Figure 1.11 Mode of transport used to visit Fanad

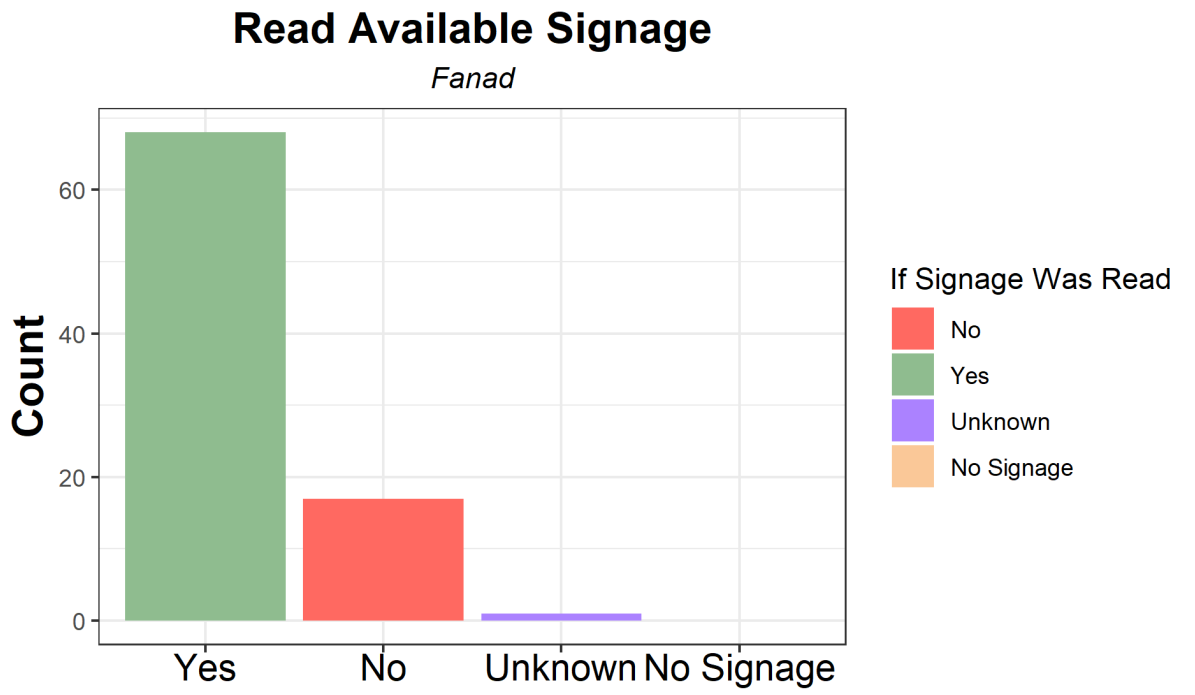


Figure 1.12 Use of Interpretive Material at Fanad

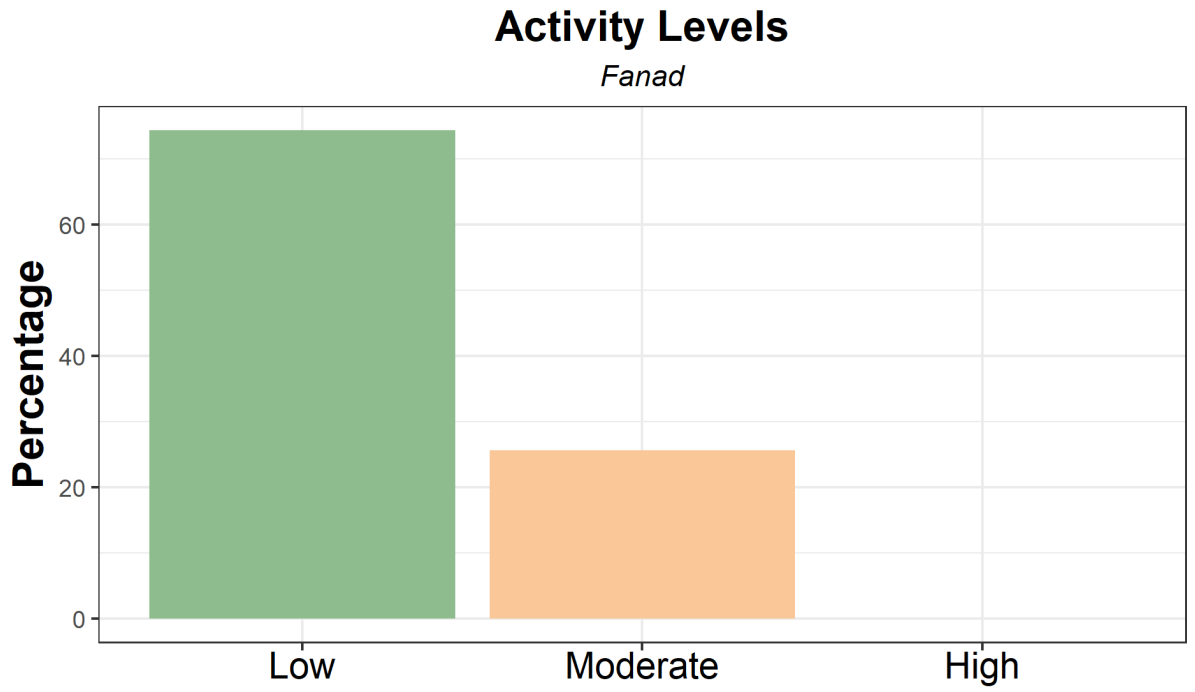


Figure 1.13 Categories of Activity Levels Observed at Fanad

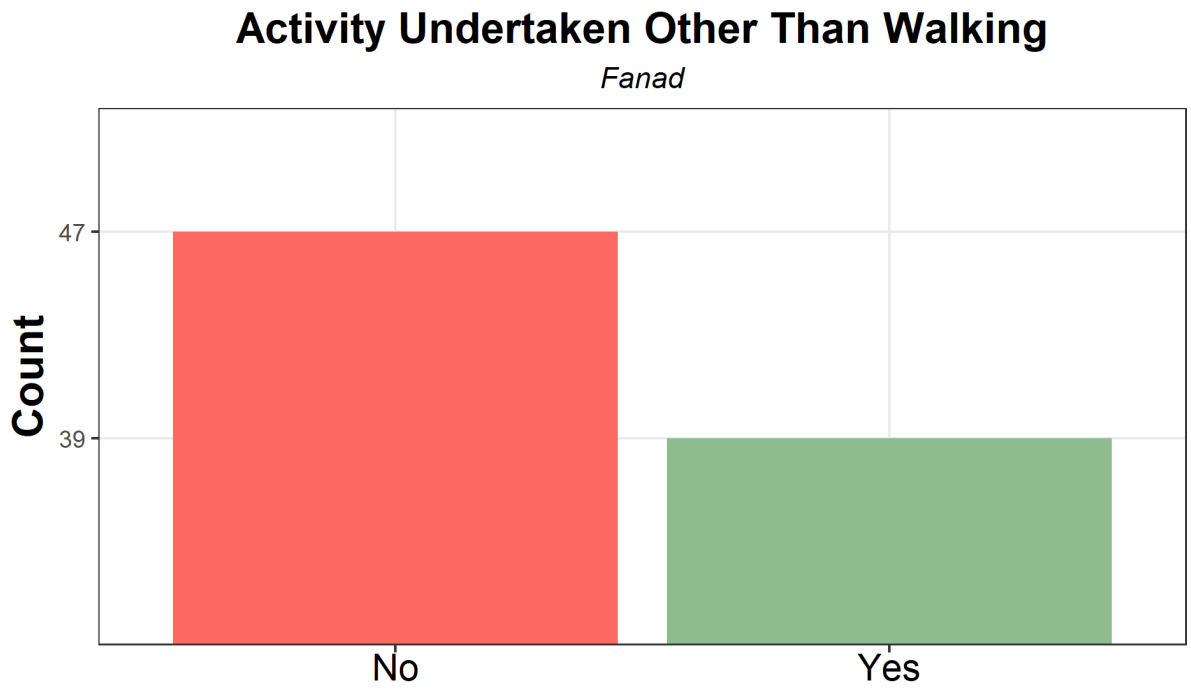


Figure 1.14 Activities undertaken other than walking

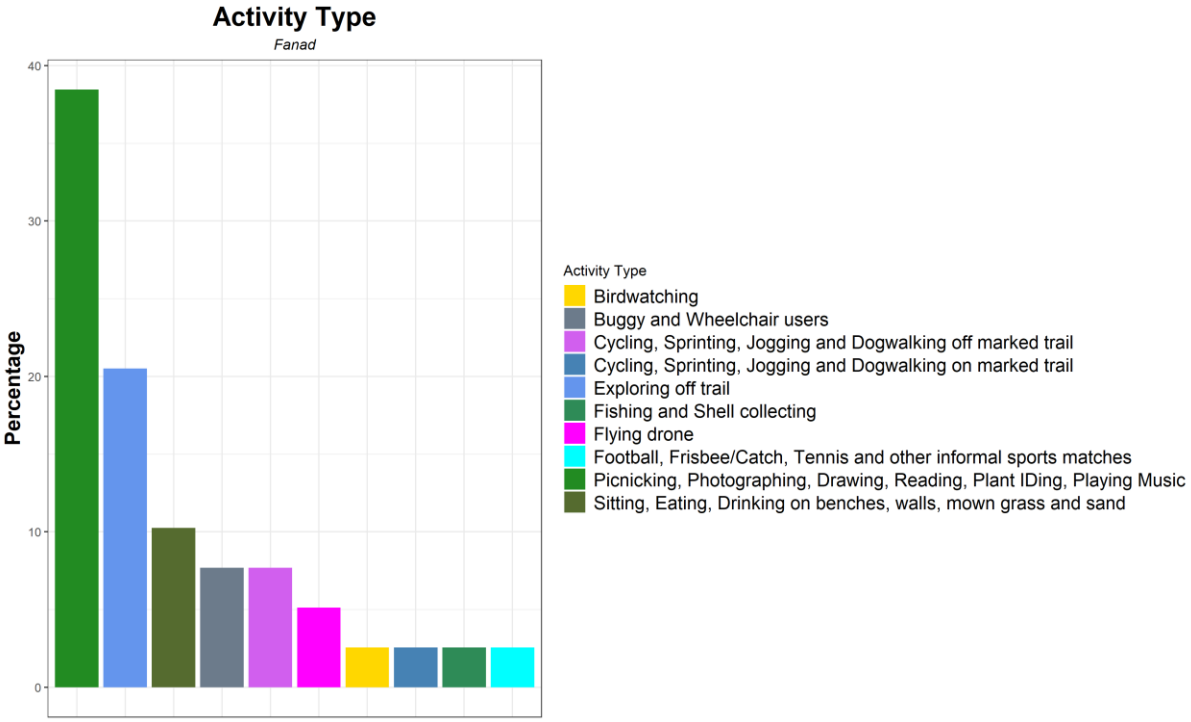


Figure 1.15 Range of Visitor Activities Observed at Fanad

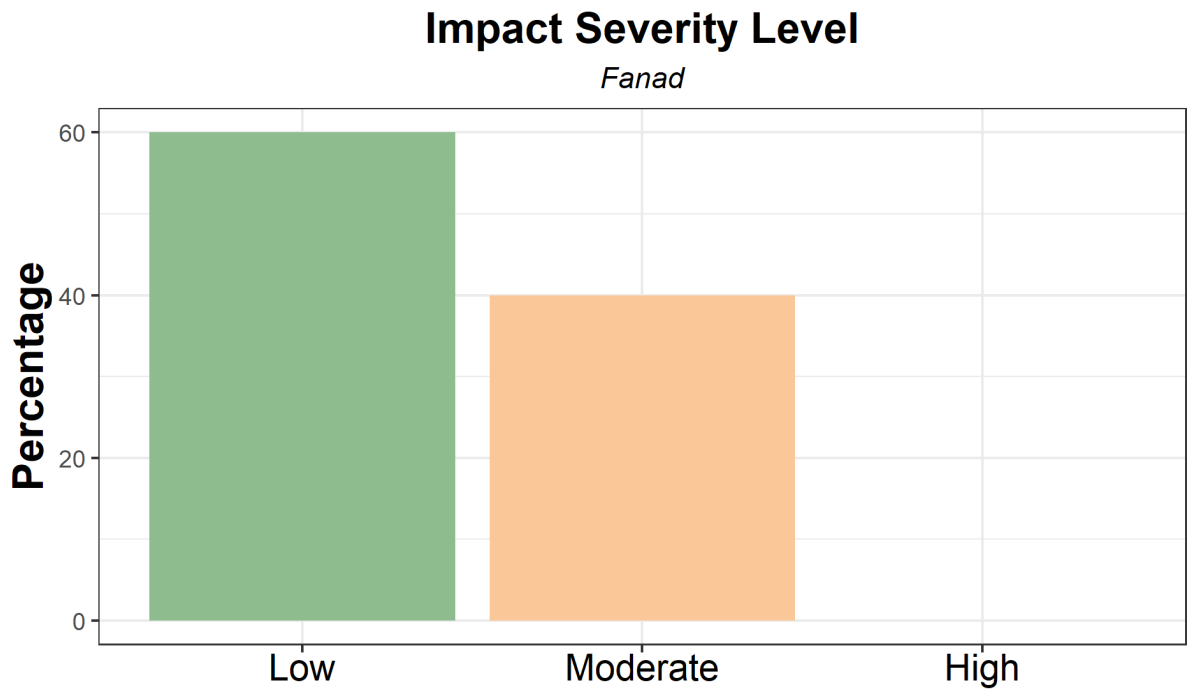


Figure 1.16 Categories of Environmental Impact Levels Observed at Fanad as a result of Visitor Activities

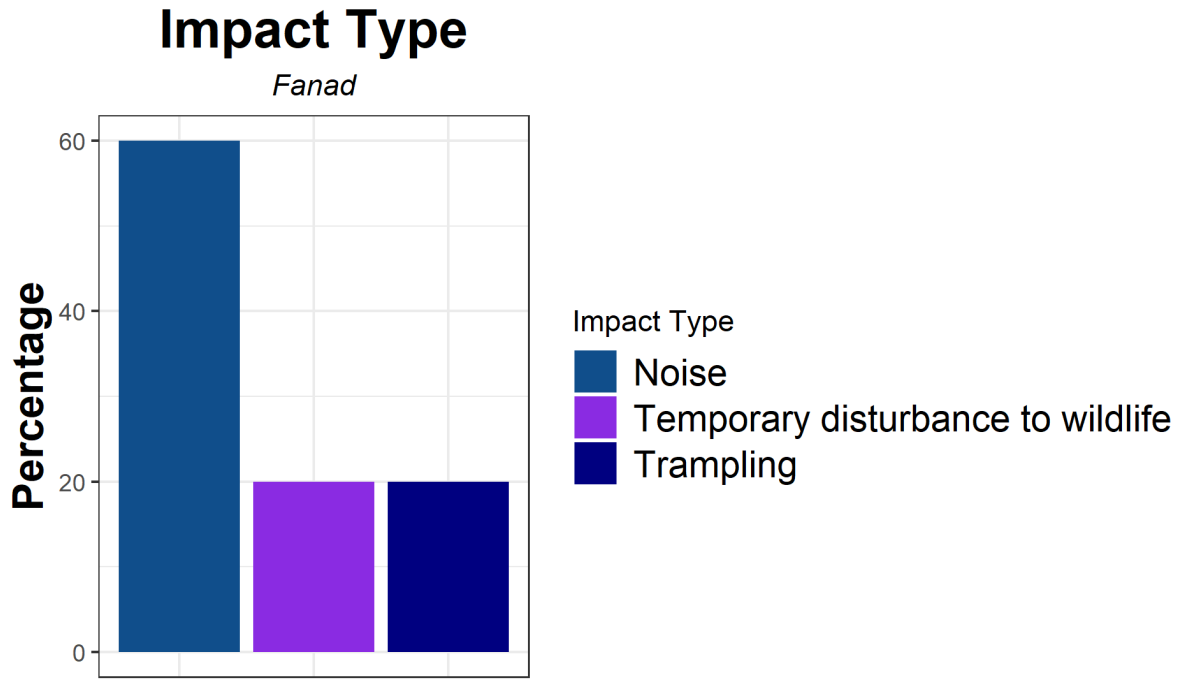


Figure 1.17 Range of Environmental Impacts Observed at Fanad

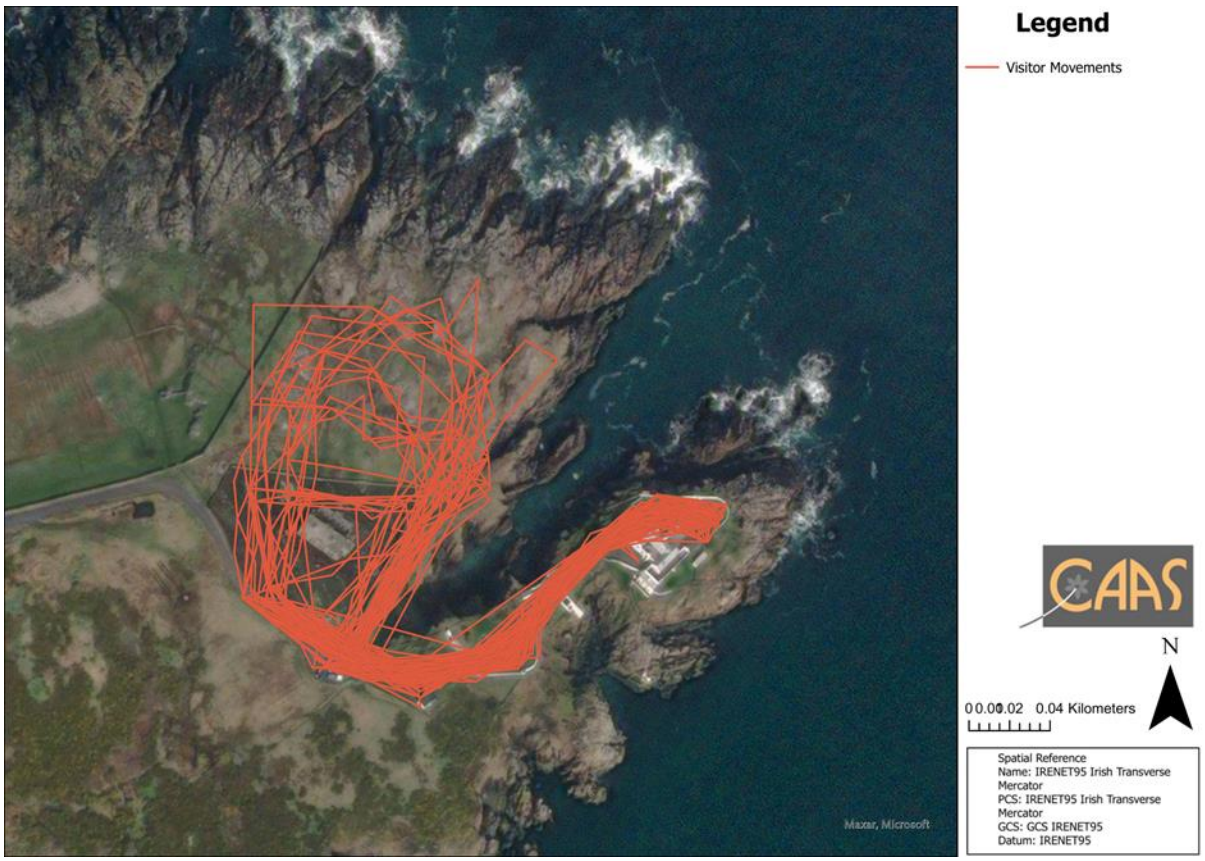


Figure 1.18 Visitor movement patterns at Fanad

Of the 86 groups recorded on site 45% of them undertook activities other than walking. These activities (identified above) resulted in 5 impacts being observed on site during the survey. Thus, 13% of activities on site resulted in impacts on the environment. The impact severity levels varied with 60% of the impacts being low, 40% of impacts being moderate, and 0% of impacts being high severity. The impacts identified for the site were:

Impact Type	Count
Noise	3
Temporary disturbance to wildlife	1
Trampling	1

1.6 Ecological Monitoring Results

1.6.1 Ecological Constraints

The habitats and species within Fanad are sensitive to aquaculture, land use management, pollution and hydrological changes.

Table 1.1 Designated sites within 2km of Fanad and relevant ecological receptors

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[001975]	Ballyhooriskey Point To Fanad Head pNHA	0	pNHA	

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[001975]	Ballyhoorisky Point to Fanad Head SAC	0	SAC	Slender Naiad *(Najas flexilis)* [1833], Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or Isoeto-Nanojuncetea [3130], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Narrow-mouthed Whorl Snail *(Vertigo angustior)* [1014], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Perennial vegetation of stony banks [1220]
[004194]	Horn Head to Fanad Head SPA	0	SPA	Chough *(Pyrrhocorax pyrrhocorax)* [A346], Guillemot *(Uria aalge)* [A199], Kittiwake *(Rissa tridactyla)* [A188], Shag *(Phalacrocorax aristotelis)* [A018], Barnacle goose *(Branta leucopsis)* [A045], Fulmar *(Fulmarus glacialis)* [A009], Peregrine falcon *(Falco peregrinus)* [A103], Razorbill *(Alca torda)* [A200], Cormorant *(Phalacrocorax carbo)* [A017], Greenland White-fronted Goose *(Anser albifrons flavirostris)* [A395]

1.6.2 Habitat Descriptions

The habitats of Fanad are mainly made up of areas of dry siliceous heath (Fossitt Code HH1), which align with the special conservation interests for which the SPA, Horn Head to Fanad, is designated as it is suitable foraging habitat for these species. The more managed part of Fanad, the lighthouse and the immediate surrounding area contains more managed habitats such as agricultural grassland (Fossitt Code GA1).

There is a network of desire lines through the heathland to the north of the roadway where there is visitor access. The area to the south is fenced off with no authorised access to visitors. The desire lines to the north have mild compaction and show indications of low visitor numbers.

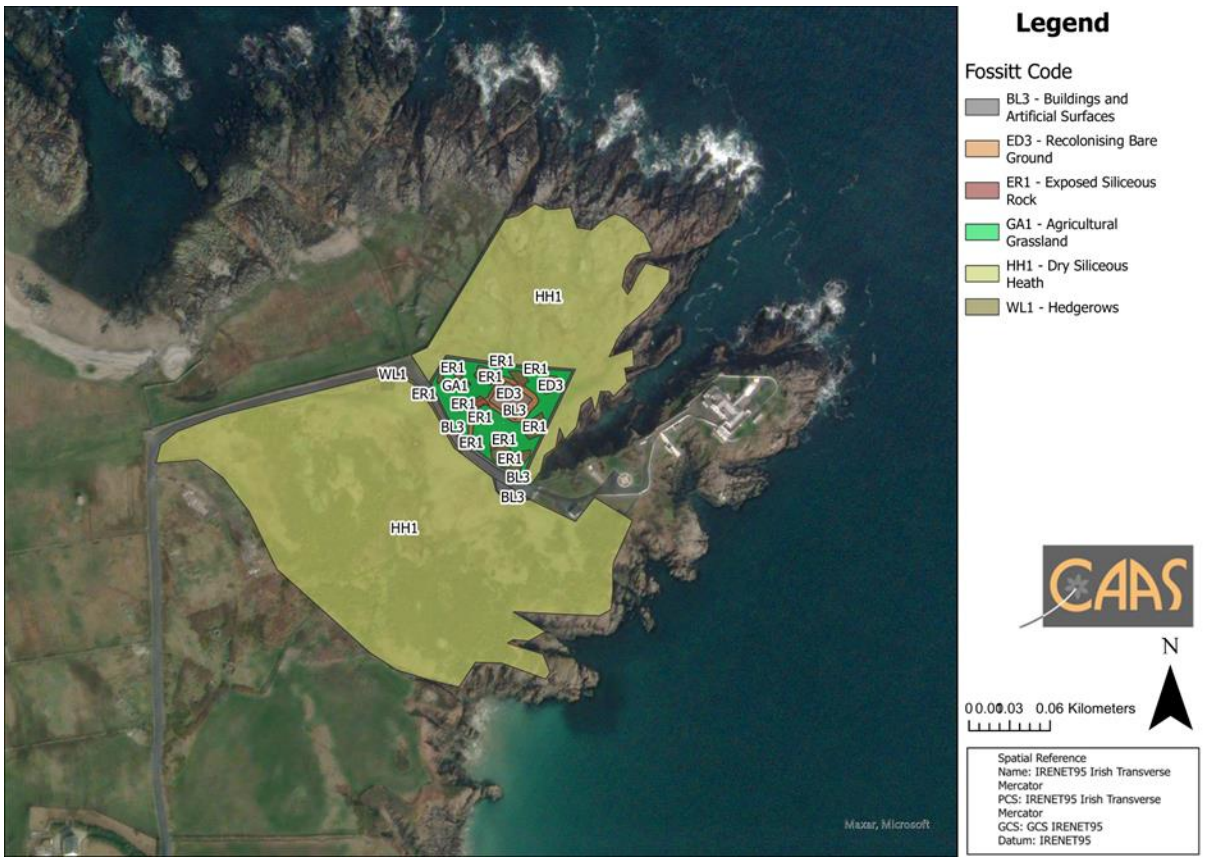


Figure 1.19 Habitats present at Fanad

1.6.3 Condition Assessment

There are a range of habitats present on site, the assessment of habitat condition identified that the overall habitat quality[2] following the assessment scale was "2" which means the majority of the habitats have a localised degree of negative impact, but slight and capable of rapid recovery. There were 3 recorded incidents of damage to habitats occurring off the marked paths on site. The causes of the damage were identified to be walking by visitors involving repeat low levels of impact gradually causing compaction of substrate to form trails. These are dispersed across the site.

1.6.4 Mammals on Site

No mammals were recorded on site at Fanad. The NBDC data shows that the majority of recorded mammals in the area are marine mammals, due to the location of Fanad on the northern coast of Ireland with bottle-nosed dolphins and grey seals having been the species that were spotted the most. In terms of terrestrial mammals, otters and rabbits occur the most according to the NBDC data.

Table 1.2 List of mammals that have been recorded at NBDC Hectad C24

Taxonomic group	Common name	Scientific name	Record count
Marine mammal	Bottle-nosed Dolphin	*Tursiops truncatus*	17
Marine mammal	Common Dolphin	*Delphinus delphis*	3
Marine mammal	Common Porpoise	*Phocoena phocoena*	9
Marine mammal	Common Seal	*Phoca vitulina*	7
Marine mammal	Cuvier's Beaked Whale	*Ziphius cavirostris*	1
Marine mammal	Grey Seal	*Halichoerus grypus*	9
Marine mammal	Humpback Whale	*Megaptera novaeangliae*	1
Marine mammal	Killer Whale	*Orcinus orca*	2
Marine mammal	Long-finned Pilot Whale	*Globicephala melas*	6
Marine mammal	Minke Whale	*Balaenoptera acutorostrata*	3
Marine mammal	Phocidae	*Phocidae*	1
Marine mammal	Pinnipedia	*Pinnipedia*	1
Terrestrial mammal	American Mink	*Mustela vison*	1
Terrestrial mammal	Eurasian Badger	*Meles meles*	1
Terrestrial mammal	Eurasian Pygmy Shrew	*Sorex minutus*	1
Terrestrial mammal	European Otter	*Lutra lutra*	5
Terrestrial mammal	European Rabbit	*Oryctolagus cuniculus*	4
Terrestrial mammal	Irish Hare	*Lepus timidus subsp. hibernicus*	3
Terrestrial mammal	Pipistrelle	*Pipistrellus pipistrellus*	2
Terrestrial mammal	Red Fox	*Vulpes vulpes*	2
Terrestrial mammal	West European Hedgehog	*Erinaceus europaeus*	1

1.6.5 Wintering Bird Survey

The only bird recorded on site was the great shearwater; however, the following species were observed in the vicinity of Fanad head along the coast on the day of survey. Fulmar, gannet, cormorant, shag, guillemot, razorbill, kittiwake, oystercatcher, sanderling and ringed plover.

Table 1.3 Results of the wintering bird survey conducted at Fanad

Common name	Scientific name	Record count
Great Shearwater	*Puffinus gravis*	9

Table 1.4 List of wintering birds that have been recorded at NBDC Hectad C24

Taxonomic group	Common name	Scientific name	Record count
Bird	Alcidae	*Alcidae*	9
Bird	Arctic Skua	*Stercorarius parasiticus*	1
Bird	Arctic Tern	*Sterna paradisaea*	1
Bird	Atlantic Puffin	*Fratercula arctica*	4
Bird	Baird's Sandpiper	*Calidris bairdii*	1
Bird	Black Guillemot	*Cepphus grylle*	12

[2] This value was calculated using the methods set out in Appendix II

Taxonomic group	Common name	Scientific name	Record count
Bird	Black-headed Gull	*Larus ridibundus*	7
Bird	Black-legged Kittiwake	*Rissa tridactyla*	29
Bird	Black-throated Diver	*Gavia arctica*	1
Bird	Common Eider	*Somateria mollissima*	10
Bird	Common Goldeneye	*Bucephala clangula*	2
Bird	Common Guillemot	*Uria aalge*	52
Bird	Common Moorhen	*Gallinula chloropus*	7
Bird	Common Redshank	*Tringa totanus*	6
Bird	Common Sandpiper	*Actitis hypoleucos*	2
Bird	Common Scoter	*Melanitta nigra*	1
Bird	Common Shelduck	*Tadorna tadorna*	1
Bird	Common Snipe	*Gallinago gallinago*	7
Bird	Common Tern	*Sterna hirundo*	3
Bird	Dunlin	*Calidris alpina*	4
Bird	Eurasian Curlew	*Numenius arquata*	12
Bird	Eurasian Oystercatcher	*Haematopus ostralegus*	15
Bird	Eurasian Teal	*Anas crecca*	1
Bird	Eurasian Wigeon	*Anas penelope*	1
Bird	Eurasian Woodcock	*Scolopax rusticola*	2
Bird	European Shag	*Phalacrocorax aristotelis*	29
Bird	Gavia	*Gavia*	3
Bird	Glaucous Gull	*Larus hyperboreus*	1
Bird	Great Black-backed Gull	*Larus marinus*	19
Bird	Great Cormorant	*Phalacrocorax carbo*	11
Bird	Great Northern Diver	*Gavia immer*	2
Bird	Great Skua	*Stercorarius skua*	1
Bird	Grey Heron	*Ardea cinerea*	9
Bird	Greylag Goose	*Anser anser*	1
Bird	Herring Gull	*Larus argentatus*	37
Bird	Iceland Gull	*Larus glaucoides*	2
Bird	Kumlien's Iceland Gull	*Larus glaucoides subsp. kumlieni*	3
Bird	Larus	*Larus*	2
Bird	Lesser Black-backed Gull	*Larus fuscus*	6
Bird	Little Egret	*Egretta garzetta*	1
Bird	Little Grebe	*Tachybaptus ruficollis*	7
Bird	Long-tailed Duck	*Clangula hyemalis*	2
Bird	Long-tailed Tit	*Aegithalos caudatus*	3
Bird	Mallard	*Anas platyrhynchos*	14
Bird	Manx Shearwater	*Puffinus puffinus*	4
Bird	Mew Gull	*Larus canus*	17
Bird	Mute Swan	*Cygnus olor*	7
Bird	Northern Eider	*Somateria mollissima subsp. borealis*	2
Bird	Northern Fulmar	*Fulmarus glacialis*	147
Bird	Northern Gannet	*Morus bassanus*	45
Bird	Northern Lapwing	*Vanellus vanellus*	8
Bird	Purple Sandpiper	*Calidris maritima*	2
Bird	Razorbill	*Alca torda*	14
Bird	Red-breasted Merganser	*Mergus serrator*	3
Bird	Red-throated Diver	*Gavia stellata*	3
Bird	Ringed Plover	*Charadrius hiaticula*	10
Bird	Ruddy Turnstone	*Arenaria interpres*	4
Bird	Sanderling	*Calidris alba*	2
Bird	Sandwich Tern	*Sterna sandvicensis*	1
Bird	Semipalmated Sandpiper	*Calidris pusilla*	1
Bird	Sooty Shearwater	*Puffinus griseus*	2
Bird	Tufted Duck	*Aythya fuligula*	7
Bird	Twite	*Carduelis flavirostris*	2

Taxonomic group	Common name	Scientific name	Record count
Bird	Velvet Scoter	*Melanitta fusca*	1
Bird	Water Rail	*Rallus aquaticus*	2
Bird	White-throated Dipper	*Cinclus cinclus*	2
Bird	Wilson's Storm-petrel	*Oceanites oceanicus*	1

1.7 Recommendations

- Path areas at entries should be reinforced and managed to reduce compactions and de-vegetation.
- Access to hazardous cliff top areas should be managed.
- The habitats on site could be managed for increased coastal diversity through bespoke heathland management practices to increase the floral diversity.
- Additional interpretation material focusing on the ecological landscape and important features of the area could increase engagement with the site.

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[3]. 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.

[3] 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.