
NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2022

MALIN HEAD

for:

Fáilte Ireland

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Contents

Malin Head – Interesting Finds	4
1 Malin Head	5
1.1 Purpose & Outputs of the Programme	5
1.2 Methods & Surveys	7
1.2.1 Visitor Characterisation Survey	7
1.2.2 Ecological & Path Assessments	7
1.2.3 Other Surveys.....	Error! Bookmark not defined.
1.3 Site Description of Malin Head	7
1.4 Pathways and Features Condition Results	10
1.4.1 Pathway Condition	10
1.4.2 Features Condition.....	11
1.4.3 Hazards.....	12
1.5 Visitor Characterisation Survey.....	13
1.6 Ecological Monitoring Results.....	1
1.6.1 Ecological Constraints	1
1.6.2 Habitat Descriptions.....	1
1.6.3 Condition Assessment	2
1.6.4 Mammals on Site	2
1.7 Recommendations	3

Malin Head – Interesting Finds

ECOLOGICAL HIGHLIGHTS

Ireland's most northerly point is an important observation site for wildlife – including migrating birds, basking sharks and whales. The site also has important historic features.



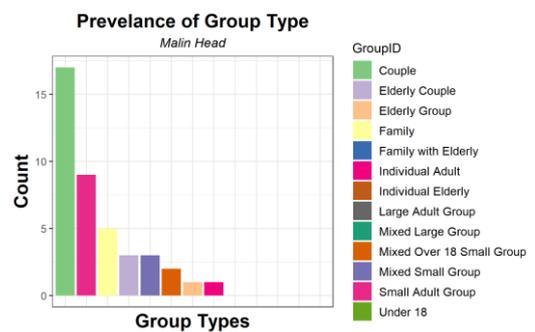
There is a breeding population of corncrakes to the north east of the site that is currently being monitored by the NPWS.

KEY RECOMMENDATIONS

- As was recommended in 2021, a visitor management plan should be considered to avoid visitor related damage on site such as compaction of substrate, along with the introduction of a traffic and parking strategy.
- Considerations should be given to a habitat restoration plan and a long-term habitat management plan to support and protect the ecology of Malin Head.
- Measures should be considered that would support positive environmental behaviours on site at Malin Head, such as the introduction of more signage.

VISITOR NUMBERS AND DWELL TIME

- 115 people visited the site over 8 hours
- Average dwell time of 39 minutes



VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site well controlled with strong management practices in place.
- Nearly 100% of all activities undertaken were considered to be low level activities such as picnicking and exploring off trail.
- An increase in the percentage of impacts being deemed moderate was noted.
- Most visitors did not read signage that was available on site.
- Average site dwell time of 39 minutes.
- Majority of visitors undertook activities other than walking on site.

Highlights:

- Path management system and carparking control measures are needed.
- Site dwell time of at least 39 minutes.
- Site signage is limited – missed opportunity for wildlife and habitats.
- Increase in number of impacts despite a severe reduction in number of visitors.



1 Malin Head

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 Fáilte 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 Malin Head:

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 Malin Head was undertaken on the 7th of August 2022, with max temperatures reaching approximately 17.4° C, little to no rainfall and moderate levels of wind on the day¹. 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. It is also important to note that there was a lack of interaction with the subject matter of the surveys to ensure that there is no influence of the surveyor at all on the resultant data.

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 Malin Head

Malin Head itself is used for various forms of recreation such beach walks and fishing. Along with being encompassed by the North Inishowen Coast SAC, it holds habitats such as stretches of montane heath and rare flowers due to the landscape of the area.

There have been no significant changes in signage and features between the 2021 and 2022 surveys.

¹ Weather data gathered from: <https://www.met.ie/climate/available-data/historical-data>



Figure 1.1 Malin Head

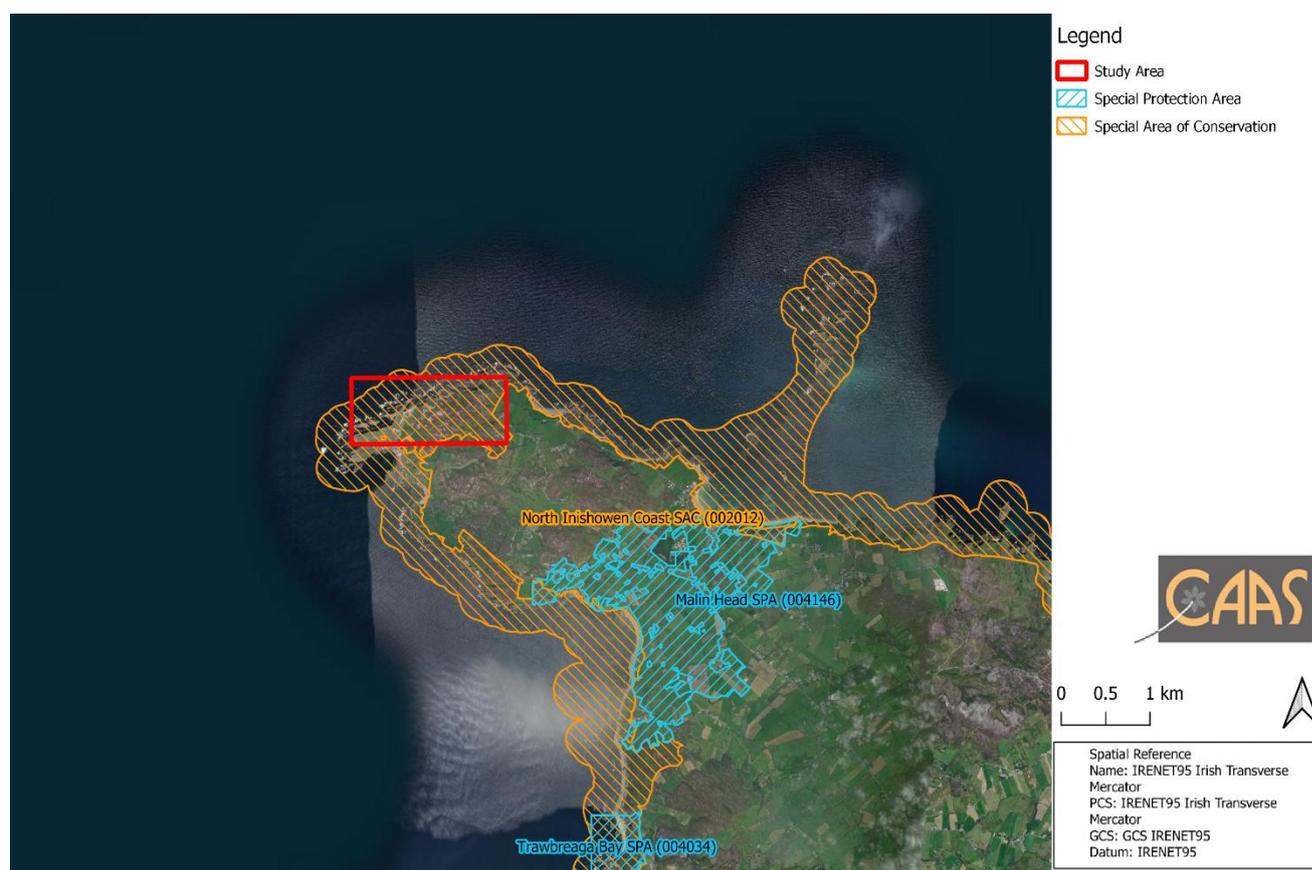


Figure 1.2 Study Area within North Inishowen Coast SAC

1.3.1 Critical Infrastructure

Table 1.1 Summary of Wastewater infrastructure at Malin Head

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
<p>Toilet facilities are available on site</p> <p>No current WWTP on site at Malin Head</p> <p>Nearest settlement with WWTP in Carndonagh (WWTP Reg #D0113)</p>	Spare capacity available ²	Current wastewater facilities are sufficient

Table 1.2 Summary of Drinking Water infrastructure at Malin Head

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
Nearest serviced settlement to Malin Head is Carndonagh	Inishowen West & Carndonagh & Culdaff	Capacity available – Level of service (LoS) improvement required ³	Current water supply is sufficient

² <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/donegal/>

³ <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/donegal/>

Table 1.3 Summary of Transport infrastructure at Malin Head

Nearest Settlement	Current Transport Infrastructure	Comment
Carndonagh	Malin Head is the location of Ireland's most Northerly Point, accessible by the R242 There are car park facilities on site	Current transport infrastructure is sufficient

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

The pathways at Malin Head are mainly made up of managed pathways of even width with a small section of hard infrastructure pathways. These managed pathways all show heavy signs of compaction with some signs of erosion due to walkers. There are also multiple desire lines and eroded pathways at Malin Head which all show signs of heavy compaction and erosion due to various levels of walking.

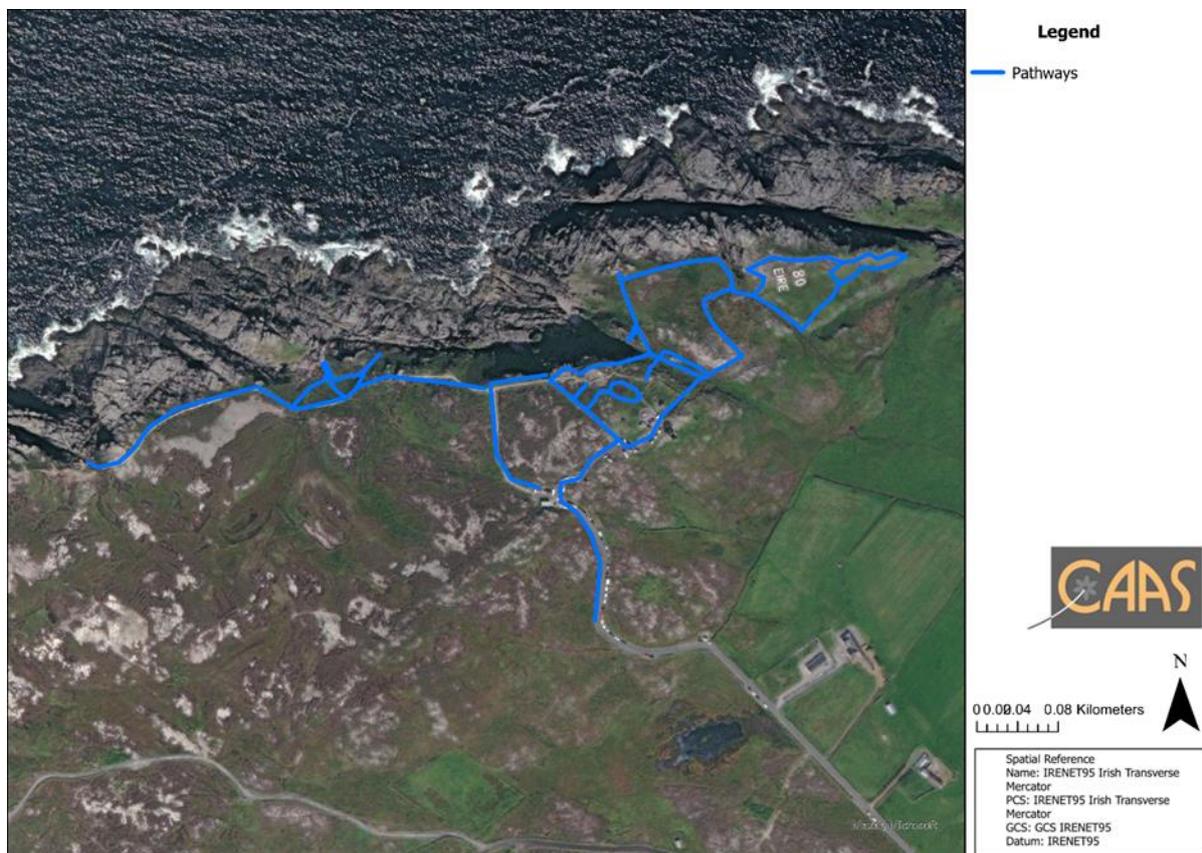


Figure 1.3 Pathways identified at Malin Head



Figure 1.4 Pathways at Malin Head

1.4.2 Features Condition

Malin Head contains multiple signs which relate to the important ecological features of the surrounding area, especially signs which include information about important bird species which can be seen in the area (Figure 1.6). The site also contains amenities for visitors such as a car park, toilets and also benches which are dotted along the designated pathways.

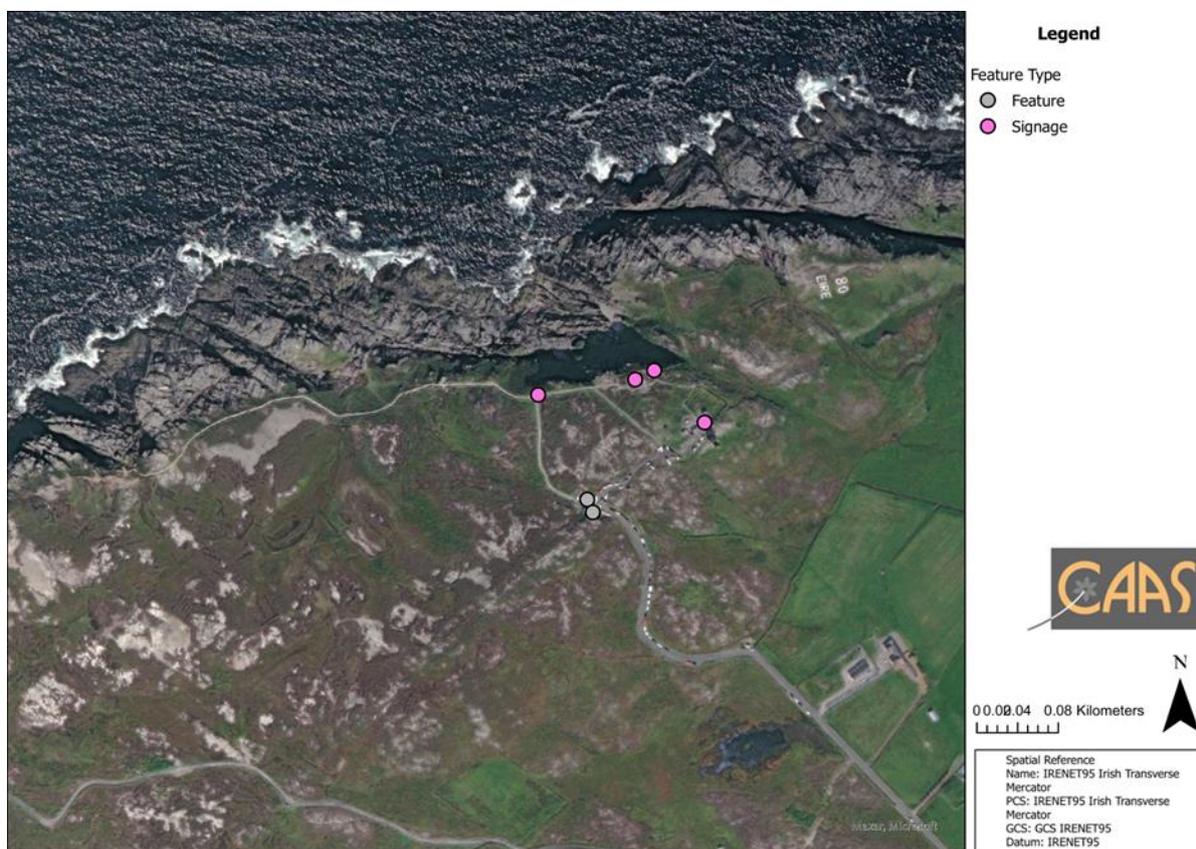


Figure 1.5 Features recorded at Malin Head



Figure 1.6 Features at Malin Head

1.4.3 Hazards

The hazard mapping at Malin Head identified few hazards, one of which, a broken fence which leads to an unsafe area (Figure 1.8).



Figure 1.7 Hazards recorded at Malin Head



Figure 1.8 Hazard at Malin Head

1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 115 visitors (which represent 41 group observations), a significant decrease from 390 visitors in 2021. The site is most popular amongst the couple group with the dominant mode of transport being car. The average dwell time for the site was 39 minutes, an increase from 27 minutes in 2021; with the following activities undertaken during the survey (listed in order of occurrence rate):

Activity Type
Exploring off trail
Photographing
Picnicking
Sitting
Dogwalking (on lead)
Other
Plant ID

Dwell Time

Malin Head

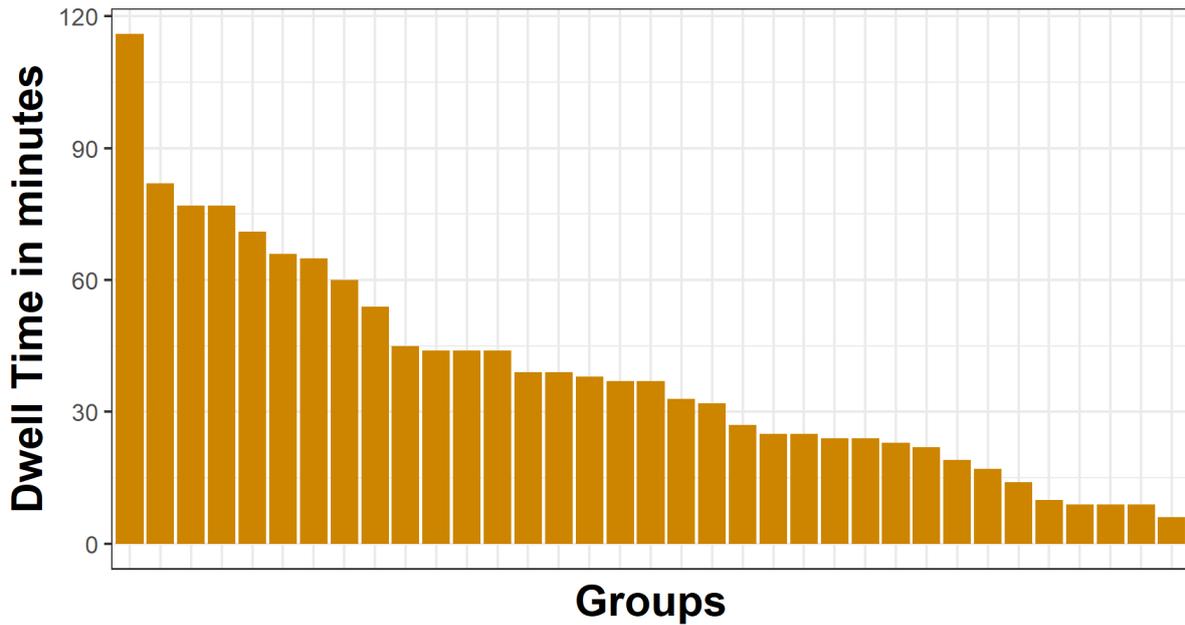


Figure 1.9 Duration of Time Spent at Malin Head

Prevalance of Group Type

Malin Head

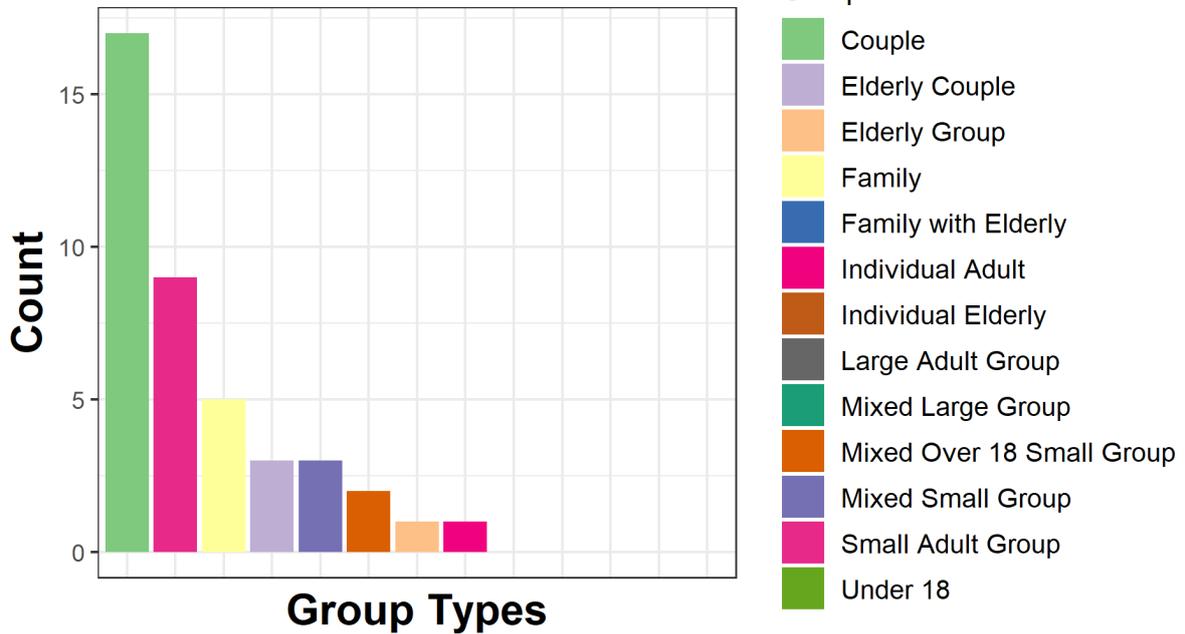


Figure 1.10 Groups of visitors that visited Malin Head

Prevalance of Transport Type

Malin Head

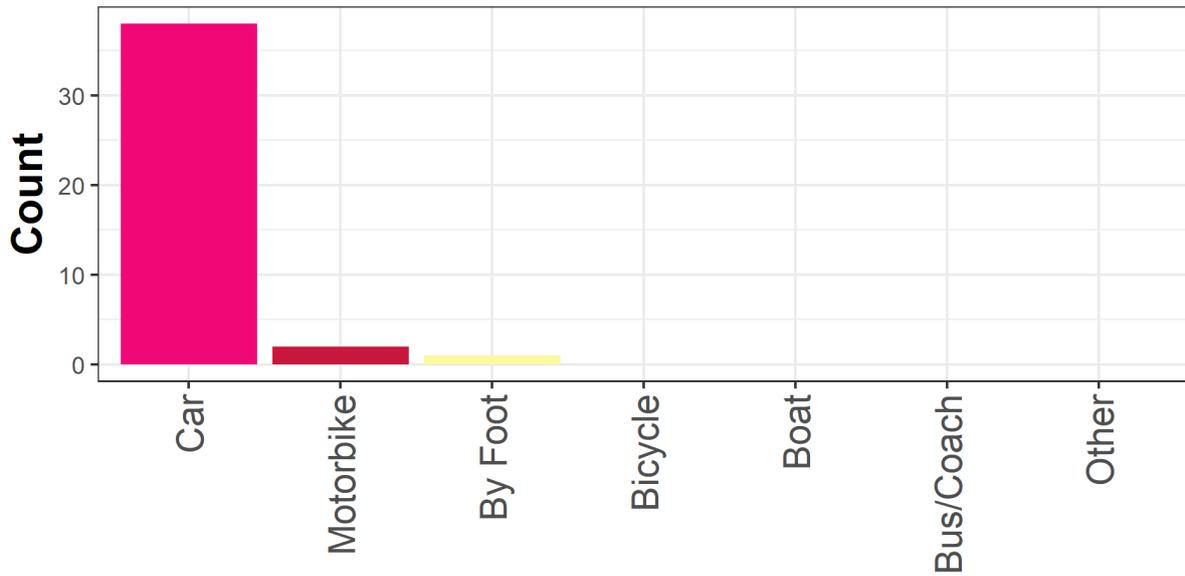


Figure 1.11 Mode of transport used to visit Malin Head

Read Available Signage

Malin Head

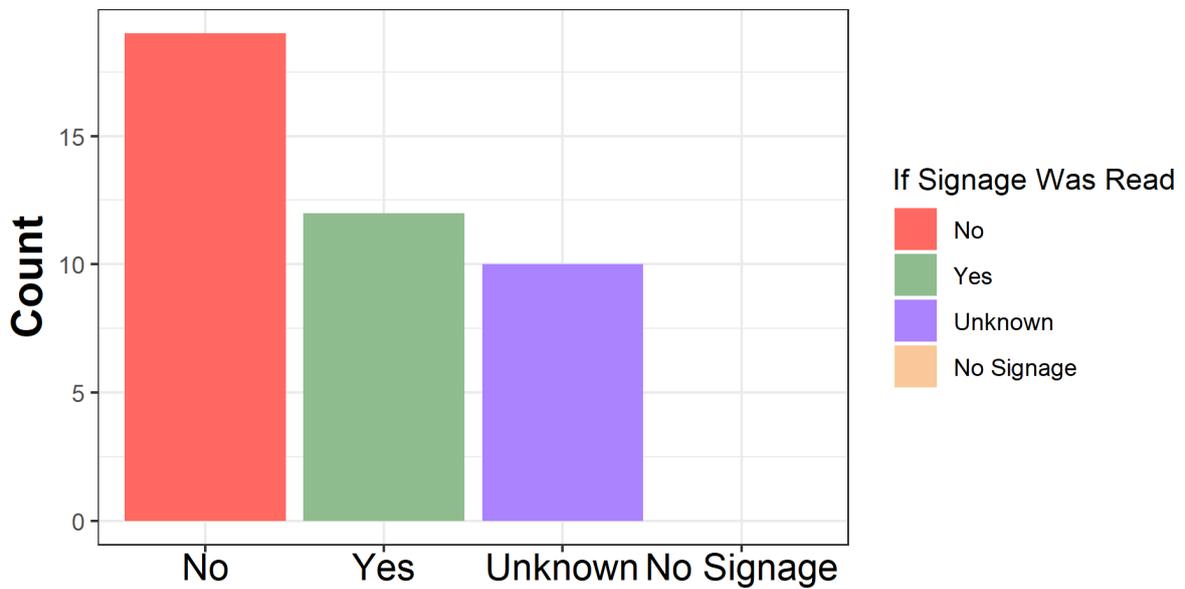


Figure 1.12 Use of Interpretive Material at Malin Head

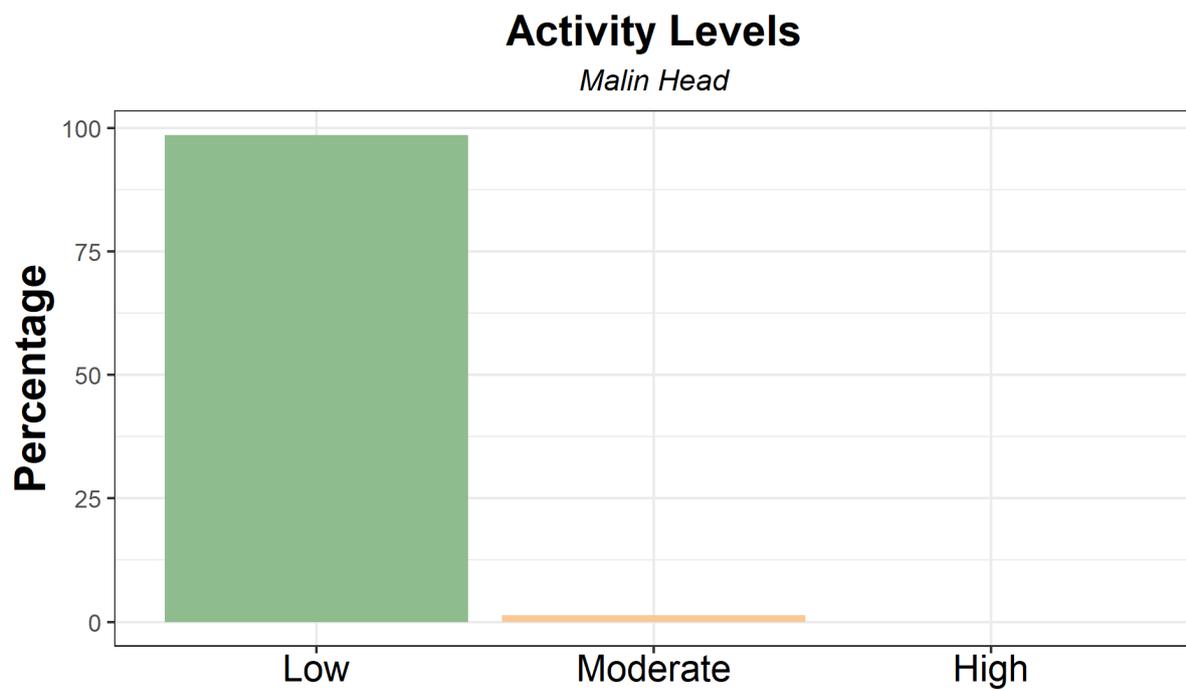


Figure 1.13 Categories of Activity Levels Observed at Malin Head

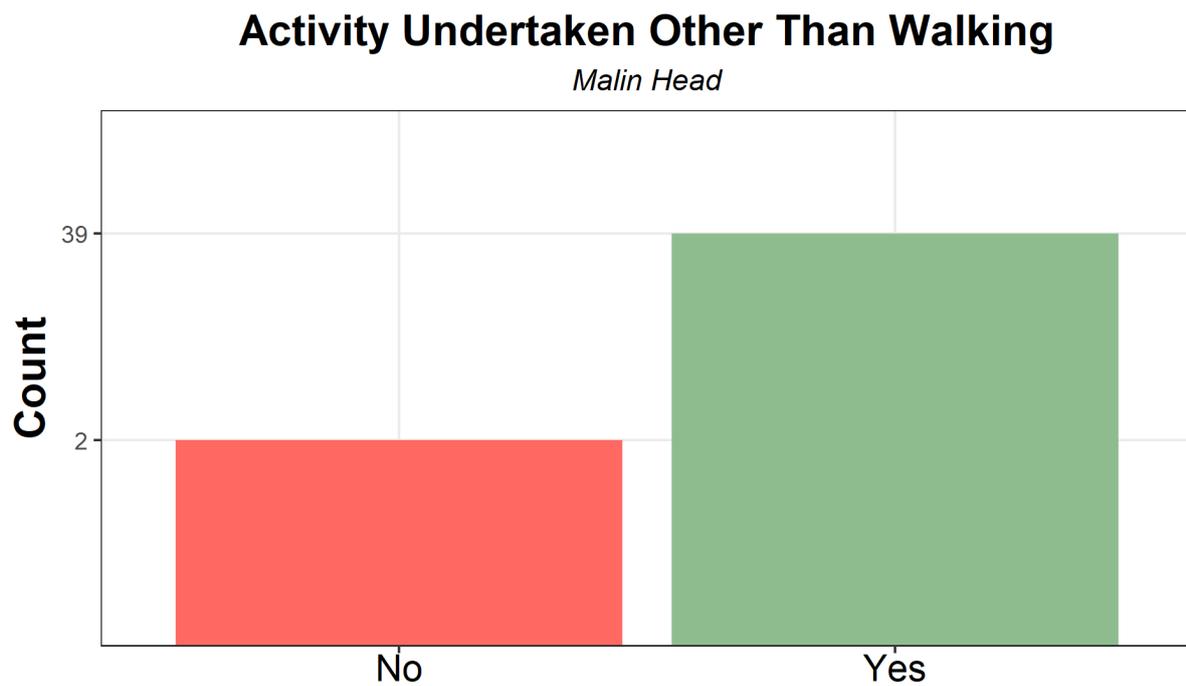


Figure 1.14 Activities undertaken other than walking

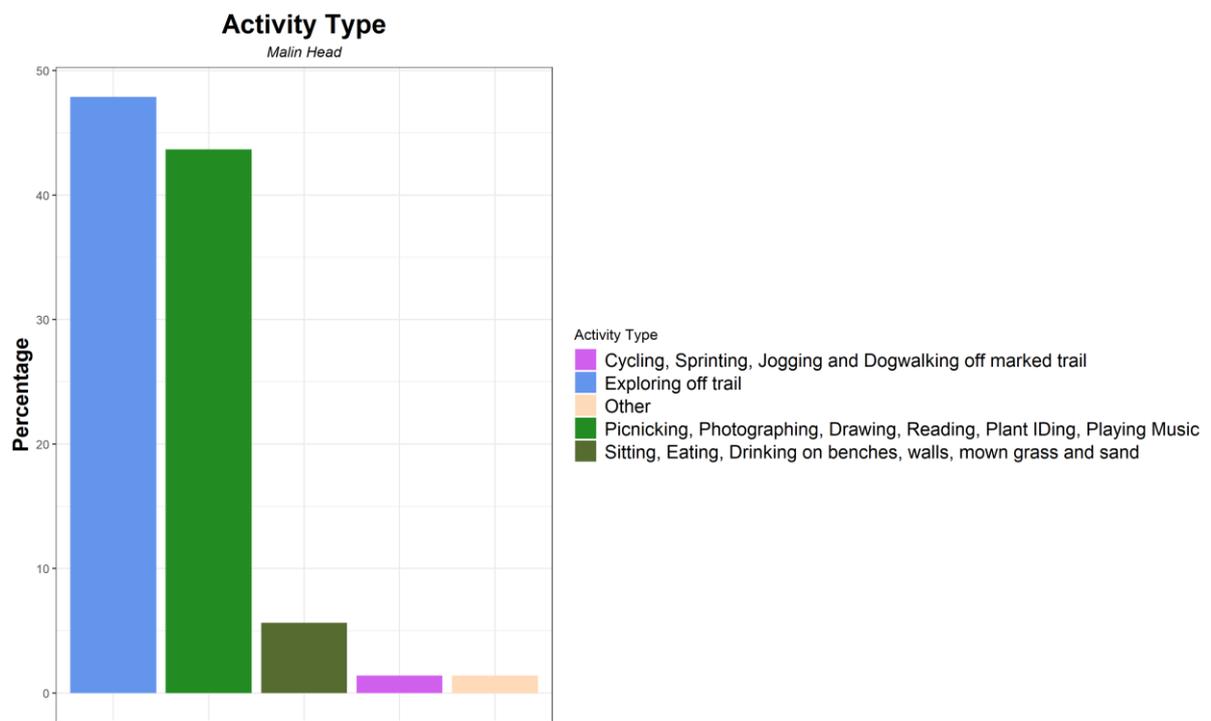


Figure 1.15 Range of Visitor Activities Observed at Malin Head

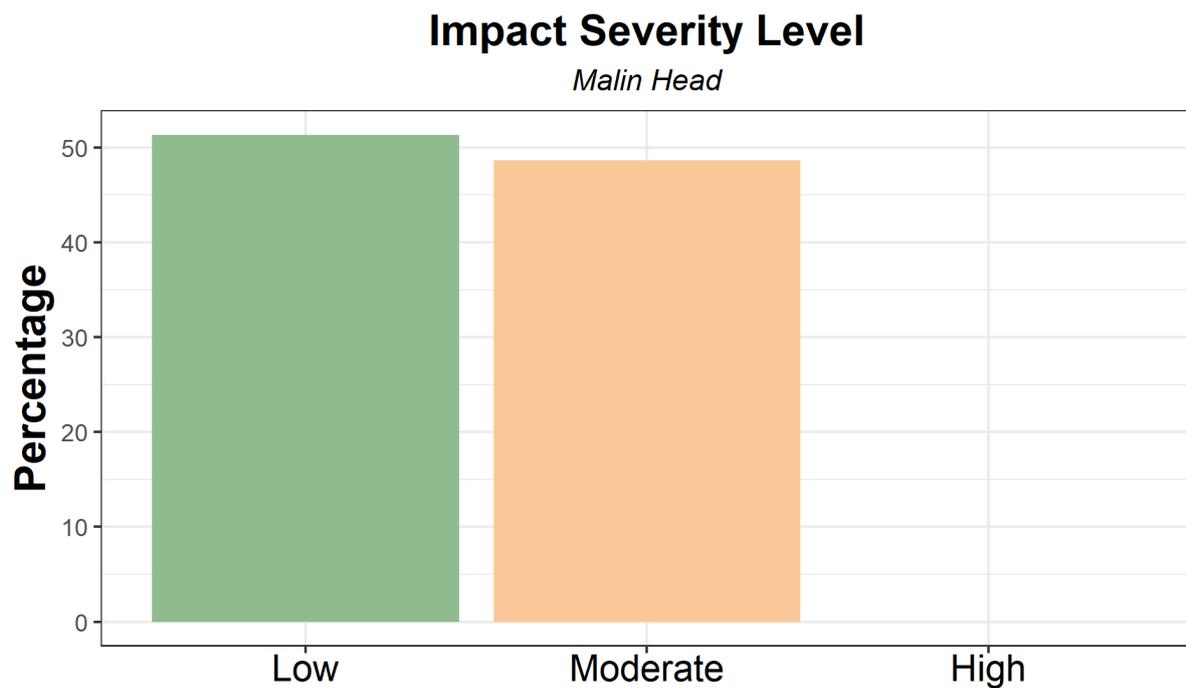


Figure 1.16 Categories of Environmental Impact Levels Observed at Malin Head as a result of Visitor Activities

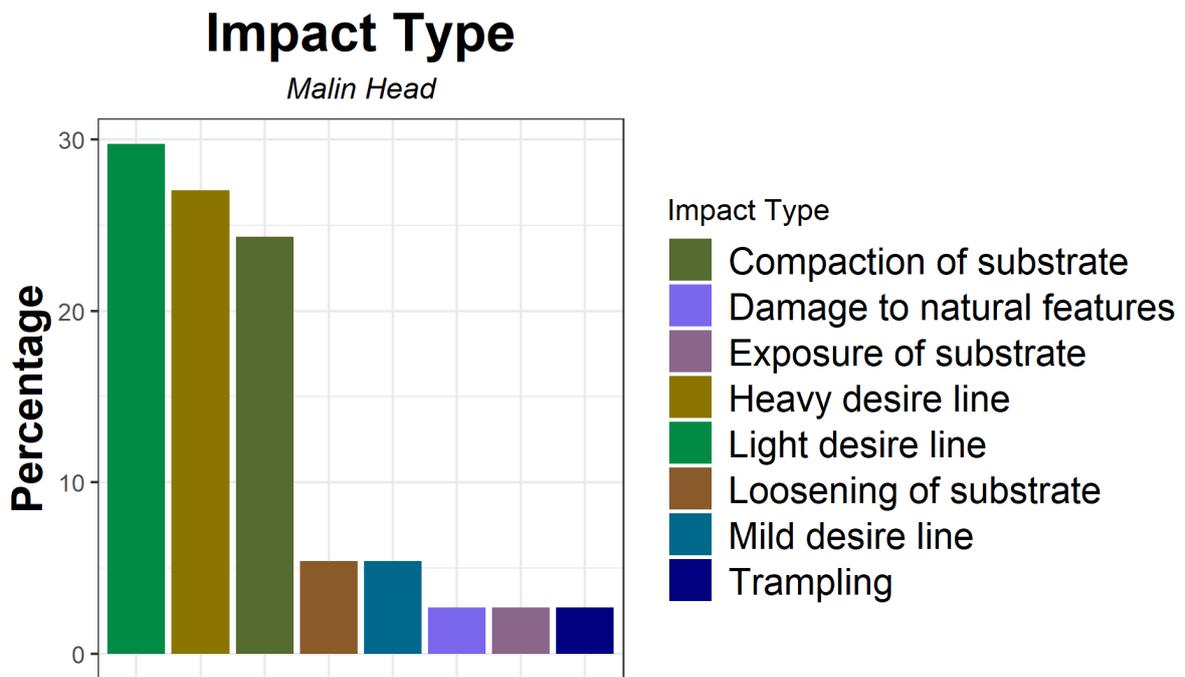


Figure 1.17 Range of Environmental Impacts Observed at Malin Head

The environmental impacts that were observed and recorded used the same coding system as the Wild Atlantic Way Monitoring⁴. These impacts were recorded if a visitor’s activity or movement resulted in one of the defined impacts noted in said coding system, which were categorised by severity level to the environment, ranging from light desire lines to disturbance of wildlife to burning of materials.



Figure 1.18 Visitor movement patterns at Malin Head

⁴ See Appendix I for more detail

Of the 41 groups recorded on site 95% of them undertook activities other than walking, an increase from 64% in 2021. These activities (identified above) resulted in 38 impacts being observed on site during the survey, an increase from 28 activities resulting in impacts in 2021. Thus, 54% of activities on site resulted in impacts on the environment, an increase from 42% in 2021. The impact severity levels varied with 51% of the impacts being low, with 89% being low in 2021, 11% of impacts being moderate, with 49% being moderate in 2021, and 0% of impacts being high severity. The impacts identified for the site were:

Impact Type	Count
Compaction of substrate	9
Damage to natural features	1
Exposure of substrate	1
Heavy desire line	10
Light desire line	11
Loosening of substrate	2
Mild desire line	2
Trampling	1

1.6 Comparison with Previous Survey Results

The data obtained has provided an opportunity to compare significant changes results with previous years. Where this occurs, this will be noted in the relevant sections.

The 2022 Visitor Characterisation Survey in Malin Head produced a number of changes from the 2021 Visitor Characterisation Survey. Noted changes include;

- An increase was noted between the number of impacts observed from 2022 when compared to 2021;
- An increase in the percentage of moderate level impacts;
- An increase percentage of visitors who undertook activities other than walking; and,
- Reduction of visitors during the 8-hour survey by 70% to 115 visitors over 41 groups with average dwell time increasing by 44%.

Prevalance of Group Type 2021 vs 2022

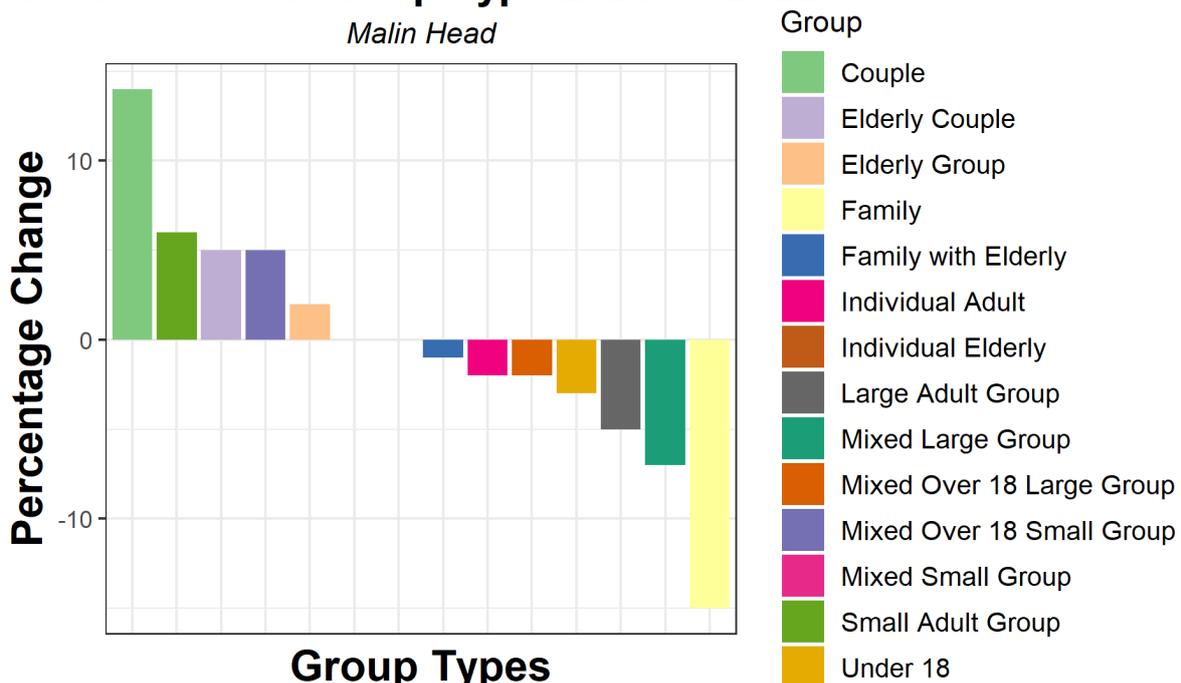


Figure 1.19 Percentage Change in groups of visitors that visited Malin Head between 2021 and 2022

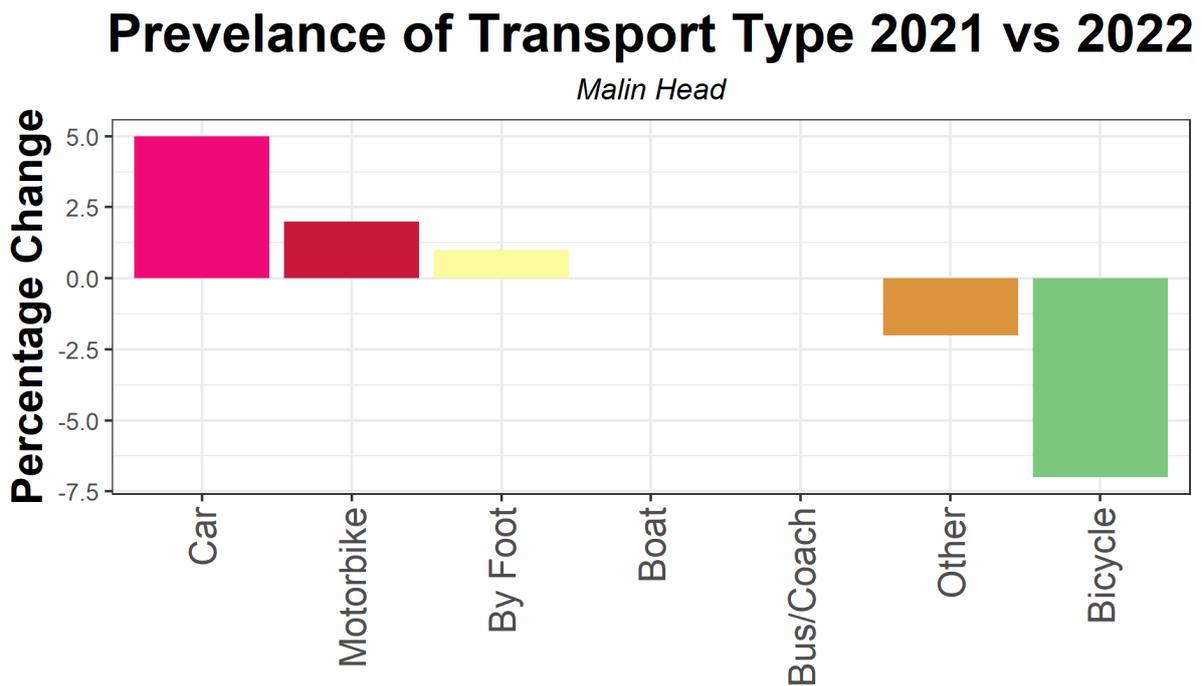


Figure 1.20 Percentage Change in mode of transport used to visit Malin Head between 2021 and 2022

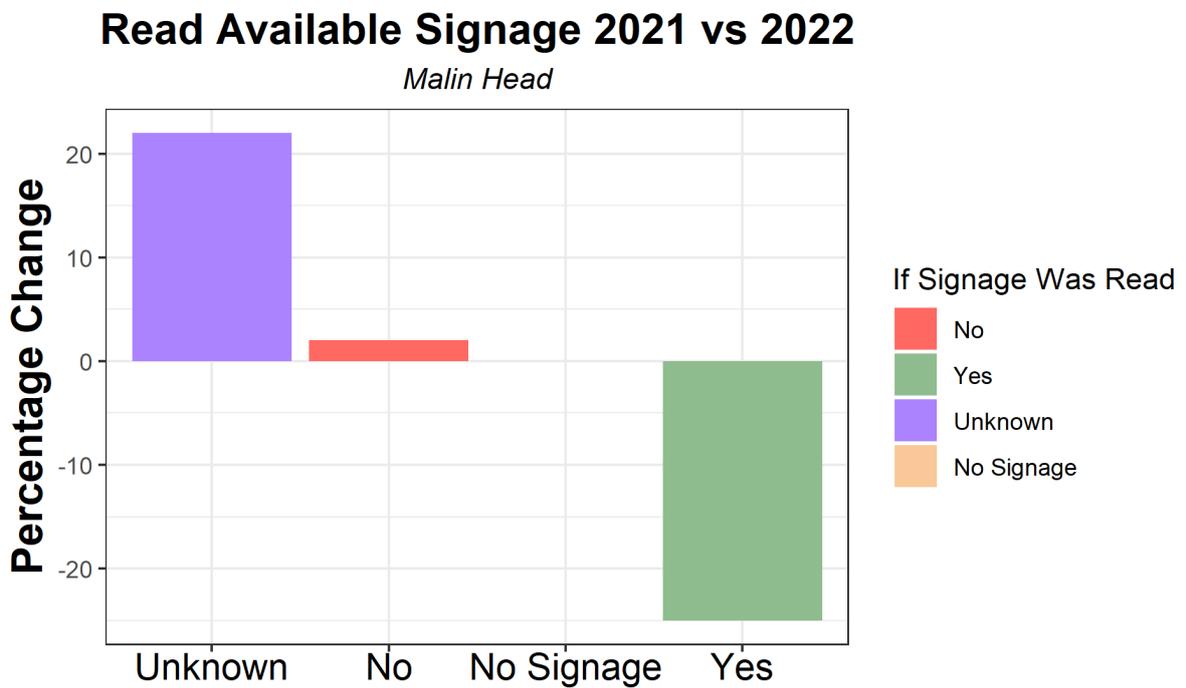


Figure 1.21 Percentage change in use of Interpretive Material at Malin Head between 2021 and 2022

Activity Levels 2021 vs 2022

Malin Head

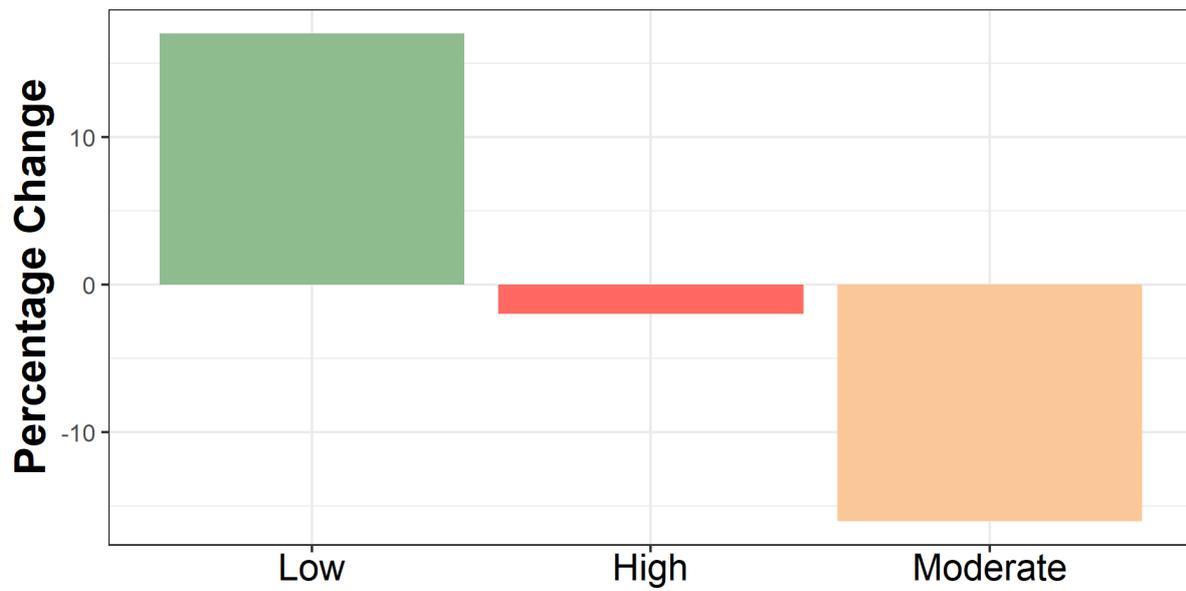


Figure 1.22 Percentage change in categories of Activity Levels Observed at Malin Head between 2021 and 2022

Activity Undertaken Other Than Walking 2021 vs 2022

Malin Head

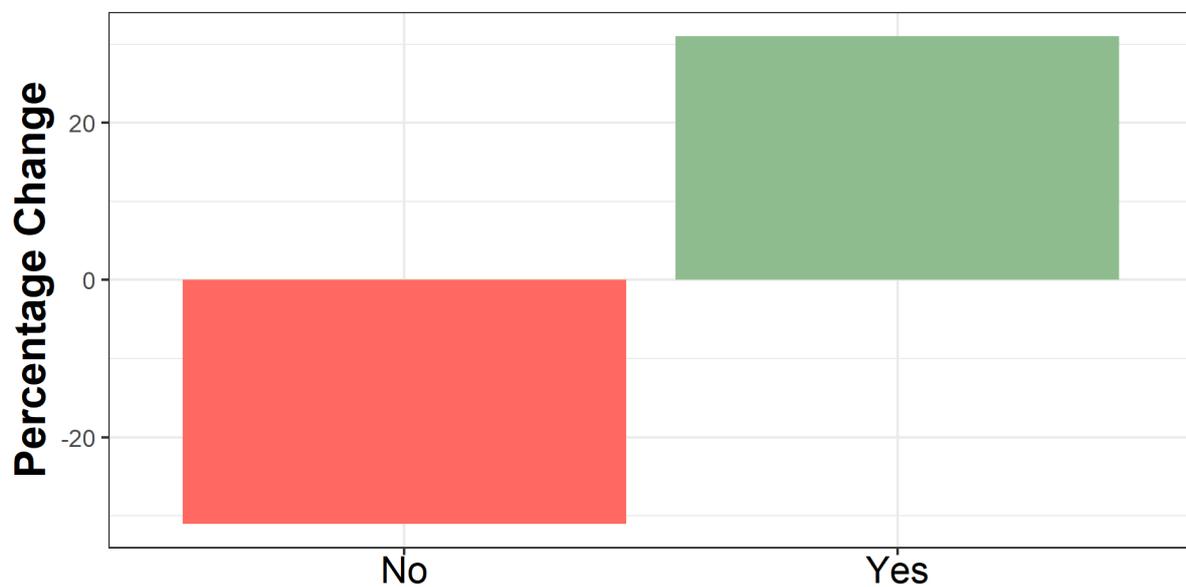


Figure 1.23 Percentage change in activities undertaken other than walking at Malin Head between 2021 and 2022

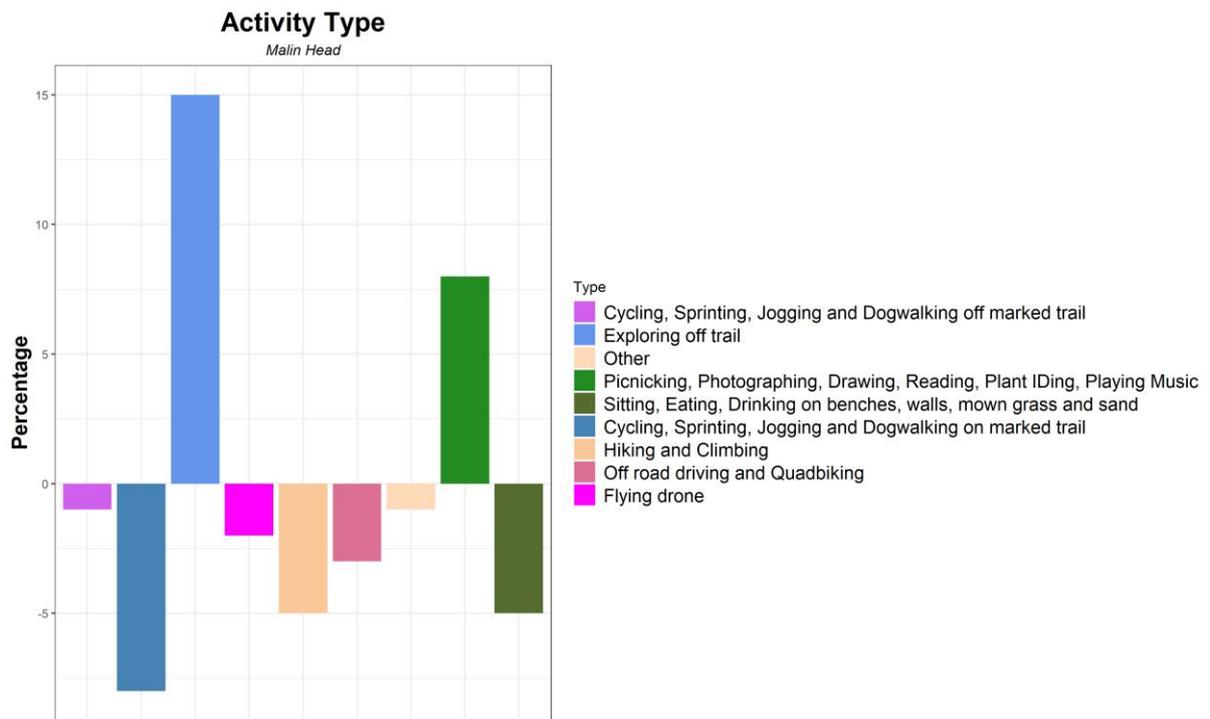


Figure 1.24 Percentage change in range of Visitor Activities Observed at Malin Head between 2021 and 2022

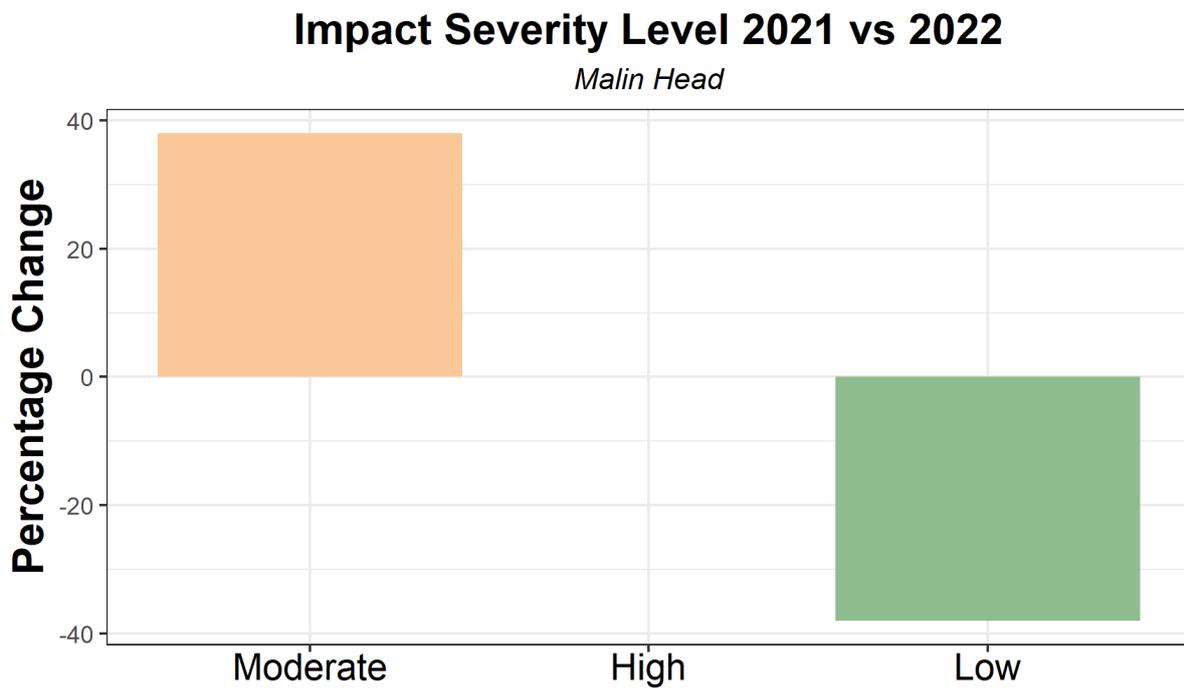


Figure 1.25 Percentage change in categories of Environmental Impact Levels Observed at Malin Head as a result of Visitor Activities⁵ between 2021 and 2022

⁵ Impact severity was measured as a categorical variable which has a range of impact factors that are pre-determined; such as injuring, killing or taking wildlife as a severe impact (high) and temporary disturbance of wildlife being a low impact. These are explained fully in the method section above.

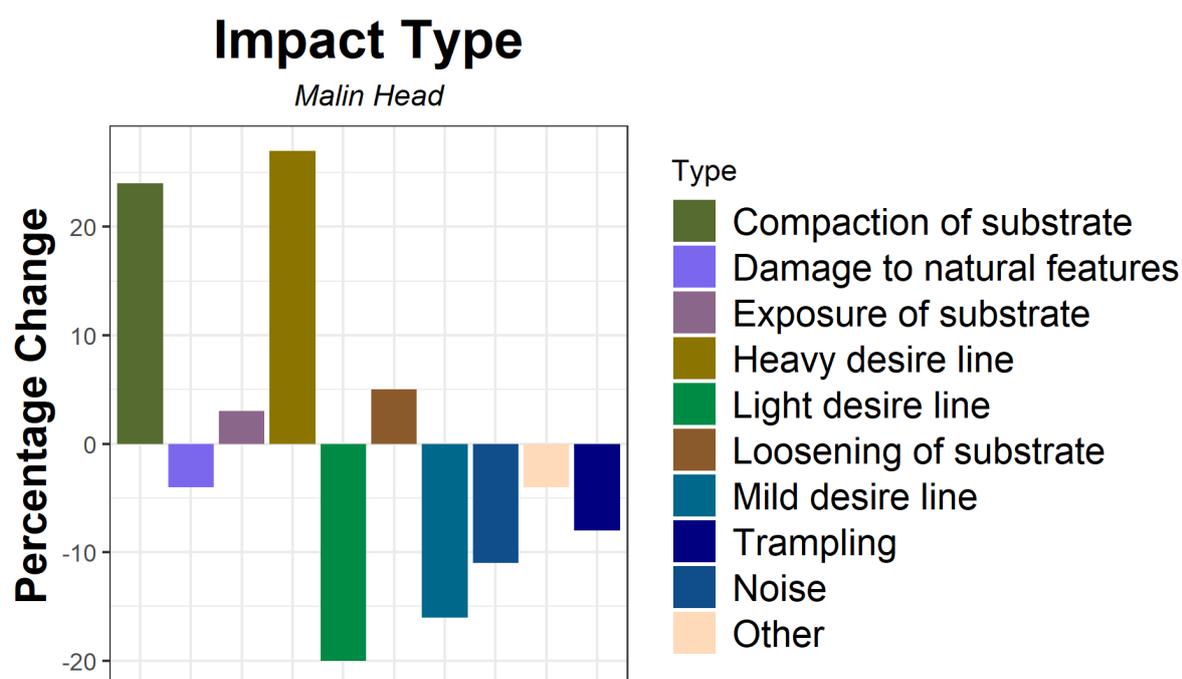


Figure 1.26 Percentage change in range of Environmental Impacts Observed at Malin Head between 2021 and 2022

Table 1.4 Summary of changes with previous survey results

Survey	Notable Differences	Comment
Visitor Dwell Time	<ul style="list-style-type: none"> Overall average dwell time increased by 44% 	The fact that the survey was conducted later in the season compared to 2021 and a severe reduction in the number of visitors could have led to an increase in average dwell time
Prevalence of Group Type	<ul style="list-style-type: none"> 14% increase in couple 15% decrease in families 	The changes in percentage of groupings could be attributed to a reduction in visitor numbers and the survey taking place later in the season
Prevalence of Transport Type	<ul style="list-style-type: none"> No significant differences noted 	No significant changes were observed
Read Available Signage	<ul style="list-style-type: none"> Signage not read increased by 2% 25% decrease in signage read Unknown increased by 22% 	Significant decrease in percentage of visitors reading available signage. However, this can be attributed to a large increase in unknown if signage was read
Activity Levels	<ul style="list-style-type: none"> High activity levels decreased by 2% Low activity levels increased by 17% Moderate activity levels decreased by 16% 	Increase in percentage of visitors partaking in low-level activities
Activity Undertaken Other Than Walking	<ul style="list-style-type: none"> Activities undertaken other than walking increased by 31% 	Significant increase in the percentage of visitors undertaking activities other than walking
Activity Type	<ul style="list-style-type: none"> Exploring off trail increased by 15% Jogging, cycling, and dog walking etc. on marked trails decreased by 8% Activities such as picnicking etc., increased by 8% 	Increase in percentage of visitors exploring off trail along with a decrease in percentage of visitors jogging etc., on marked trails

Survey	Notable Differences	Comment
Impact Severity Level	<ul style="list-style-type: none"> No change in high impact level Low impact level decreased by 38% Moderate impact level increased by 38% 	Large increase percentage of moderate impacts observed on site. This is could be due to a higher number of impacts being recorded during 2022
Impact Type	<ul style="list-style-type: none"> 24% increase in compaction of substrate 27% increase in heavy desire lines 20% decrease in light desire lines 16% decrease in mild desire lines 11% decrease in noise 8% decrease in trampling 	There is a decrease in percentage of impacts such trampling and light and mild desire lines, however, there was also a significant increase in the percentage of heavy desire lines and compaction of substrate

1.7 Ecological Monitoring Results

1.7.1 Ecological Constraints

The species and habitats within 2km of Malin Head are known to be sensitive to pollution, hydrological changes, overgrazing and land use management.

Table 1.5 Designated sites within 2km of Malin Head and relevant ecological receptors

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[002012]	North Inishowen Coast pNHA	0.00	pNHA	
[002012]	North Inishowen Coast SAC	0.00	SAC	Machairs * in Ireland [21A0], Otter (<i>Lutra lutra</i>) [1355], European dry heaths [4030], Narrow-mouthed whorl snail (<i>Vertigo angustior</i>) [1014], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mudflats and sandflats not covered by seawater at low tide [1140], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
[004146]	Malin Head SPA	1.97	SPA	Corncrake (<i>Crex crex</i>) [A122]

1.7.2 Habitat Descriptions

Malin Head is mainly made up of one habitat, dry siliceous heath (Fossitt Code HH1). This habitat provides ample foraging area for special conservation interests for which the SPA, Malin Head, is designated (Corncrake (*Crex crex*)) and is typical of an elevated coastal area.

There is widespread damage to the protected habitat as a direct result of tourism through trampling, staying off the designated tracks and overflow parking on the protected habitat (particularly along the roadside edge where cars pull 2 wheels onto the heathland to ensure they are out of the way of other cars).

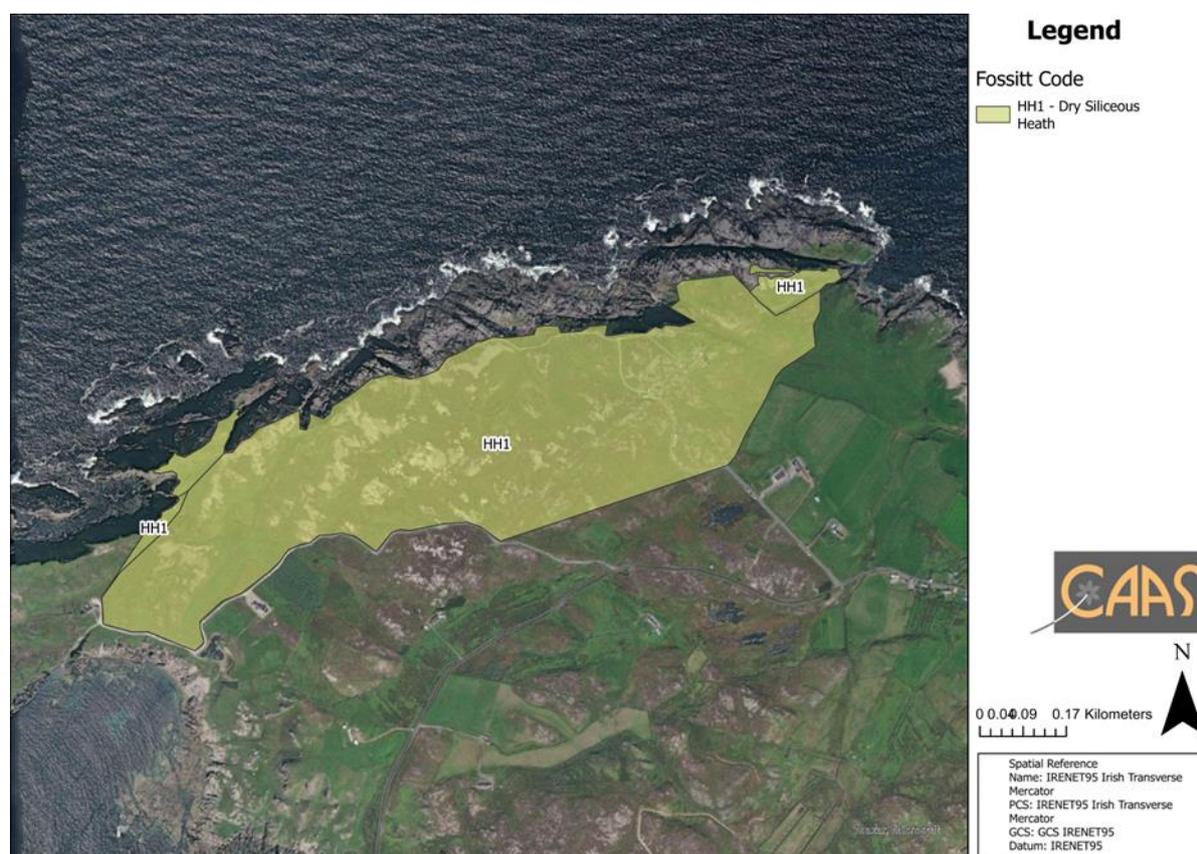


Figure 1.27 Habitats present at Malin Head

1.7.3 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.

1.7.4 NBDC Records of Mammals

As the NBDC data shows, the majority of mammal species in the area are marine mammals due to Malin Head's location on the north coast of Ireland, with the most common species observed in the area being bottle-nosed dolphins. However, a variety of terrestrial mammals have been observed in the area, albeit in small numbers with species such as otter and hare being recorded.

Table 1.6 List of mammals that have been recorded at NBDC Hectads C35 & C45

Group	Common name	Scientific name	Number recorded
Marine mammal	Bottle-nosed Dolphin	<i>Tursiops truncatus</i>	50
Marine mammal	Common Dolphin	<i>Delphinus delphis</i>	3
Marine mammal	Common Porpoise	<i>Phocoena phocoena</i>	3
Marine mammal	Common Seal	<i>Phoca vitulina</i>	2
Marine mammal	Cuvier's Beaked Whale	<i>Ziphius cavirostris</i>	2
Marine mammal	Grey Seal	<i>Halichoerus grypus</i>	5
Marine mammal	Long-finned Pilot Whale	<i>Globicephala melas</i>	2
Marine mammal	Minke Whale	<i>Balaenoptera acutorostrata</i>	3
Marine mammal	Risso's Dolphin	<i>Grampus griseus</i>	2
Marine mammal	Sperm Whale	<i>Physeter macrocephalus</i>	2
Marine mammal	Striped Dolphin	<i>Stenella coeruleoalba</i>	2
Marine mammal	True's Beaked Whale	<i>Mesoplodon mirus</i>	1
Marine mammal	White-beaked Dolphin	<i>Lagenorhynchus albirostris</i>	1
Terrestrial mammal	American Mink	<i>Mustela vison</i>	1
Terrestrial mammal	Eurasian Badger	<i>Meles meles</i>	1
Terrestrial mammal	Eurasian Red Squirrel	<i>Sciurus vulgaris</i>	1
Terrestrial mammal	European Otter	<i>Lutra lutra</i>	6
Terrestrial mammal	European Rabbit	<i>Oryctolagus cuniculus</i>	1
Terrestrial mammal	Feral Goat	<i>Capra hircus</i>	2
Terrestrial mammal	Irish Hare	<i>Lepus timidus subsp. hibernicus</i>	3
Terrestrial mammal	Pipistrelle	<i>Pipistrellus pipistrellus</i>	2
Terrestrial mammal	Red Deer	<i>Cervus elaphus</i>	1
Terrestrial mammal	Red Fox	<i>Vulpes vulpes</i>	2
Terrestrial mammal	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	1

1.8 Recommendations

- As was recommended in 2021, a visitor management plan should be considered to avoid visitor related damage on site such as compaction of substrate, along with the introduction of a traffic and parking strategy.
- Considerations should be given to a habitat restoration plan and a long-term habitat management plan to support and protect the ecology of Malin Head.
- Measures should be considered that would support positive environmental behaviours on site at Malin Head, such as the introduction of more signage.

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 sites⁶. 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.

⁶ 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.