NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2022

DOONLOUGHAN

for: **Fáilte Ireland**

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Doonloughan – Interesting Finds

ECOLOGICAL HIGHLIGHTS

The site is mainly made up of machair, which is an important habitat and protected under the EU Habitats Directive. These only occur in western coastal areas of Ireland and Scotland.

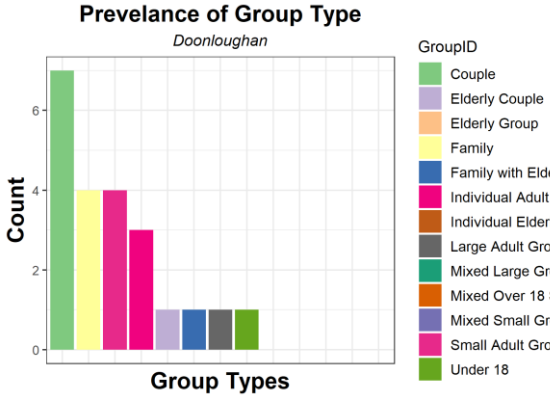
The Machaire present of site is extremely degraded and in need of direct intervention.

KEY RECOMMENDATIONS

- As was recommended in 2021, signage on site should be installed in order to raise awareness of the importance of the habitats found at Doonloughan
- A trail network plan and visitor management strategy would help alleviate pressures on the protected features on site
- In order to restore the dunes on site, a habitat management plan should be instated

VISITOR NUMBERS AND DWELL TIME

- 62 people visited the site over 8 hours
- Average dwell time of 48 minutes



VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site are not well controlled with high levels of severe impacts being caused by visitors and vehicular movement.
- Majority of visitors undertook activities that that did not relate to walking.
- No signage available for visitors.
- Decrease in percentage of high-level impacts observed from 2021.
- Compaction of substrate was the most common impact observed.
- Large decrease in the number of visitors to the site when compared to 2021.

Highlights:

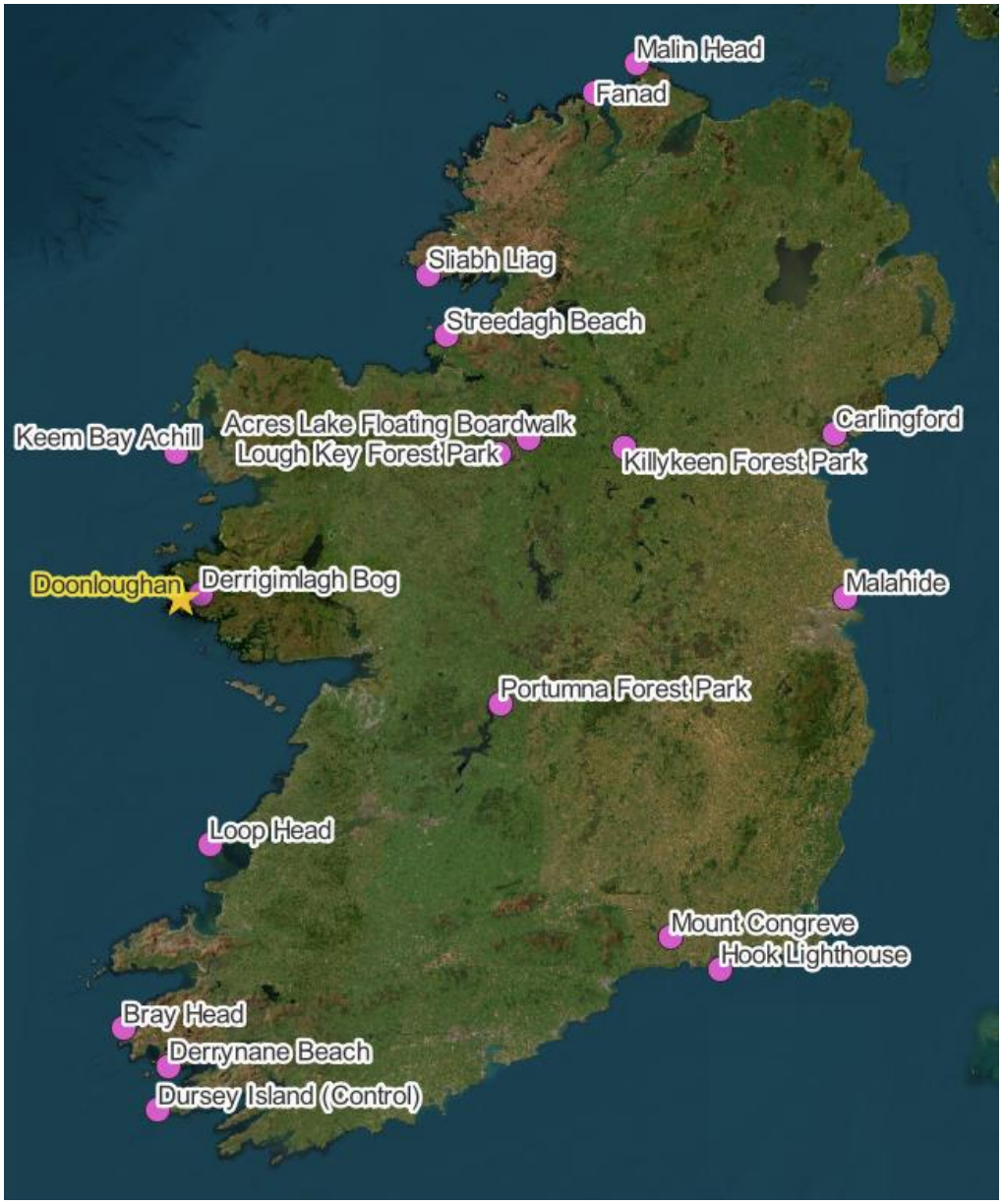
- Severe erosion and trail lines caused by human activity.
- Visitor control measures are needed.
- No signage on site related to wildlife and habitats at site.
- Decrease in percentage of visitors partaking in camping related activities.

1 Doonloughan

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 Doonloughan:

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 Doonloughan was undertaken on the 30th of July 2022, with max temperatures reaching approximately 16.9° 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. 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 Doonloughan

Doonloughan is an isolated beach (Figure 7.1) in Mannin, western Galway that is used by many for both swimming and surfing. The area is completely within the Slyne Head Peninsula SAC and bordered by Slyne Head Islands SAC and contains habitats like machairs and rocky sea cliffs.

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

[1] Weather data gathered from closest available weather stations: https://www.met.ie/climate/available-data/historical-data

Figure 1.1 Doonloughan beach

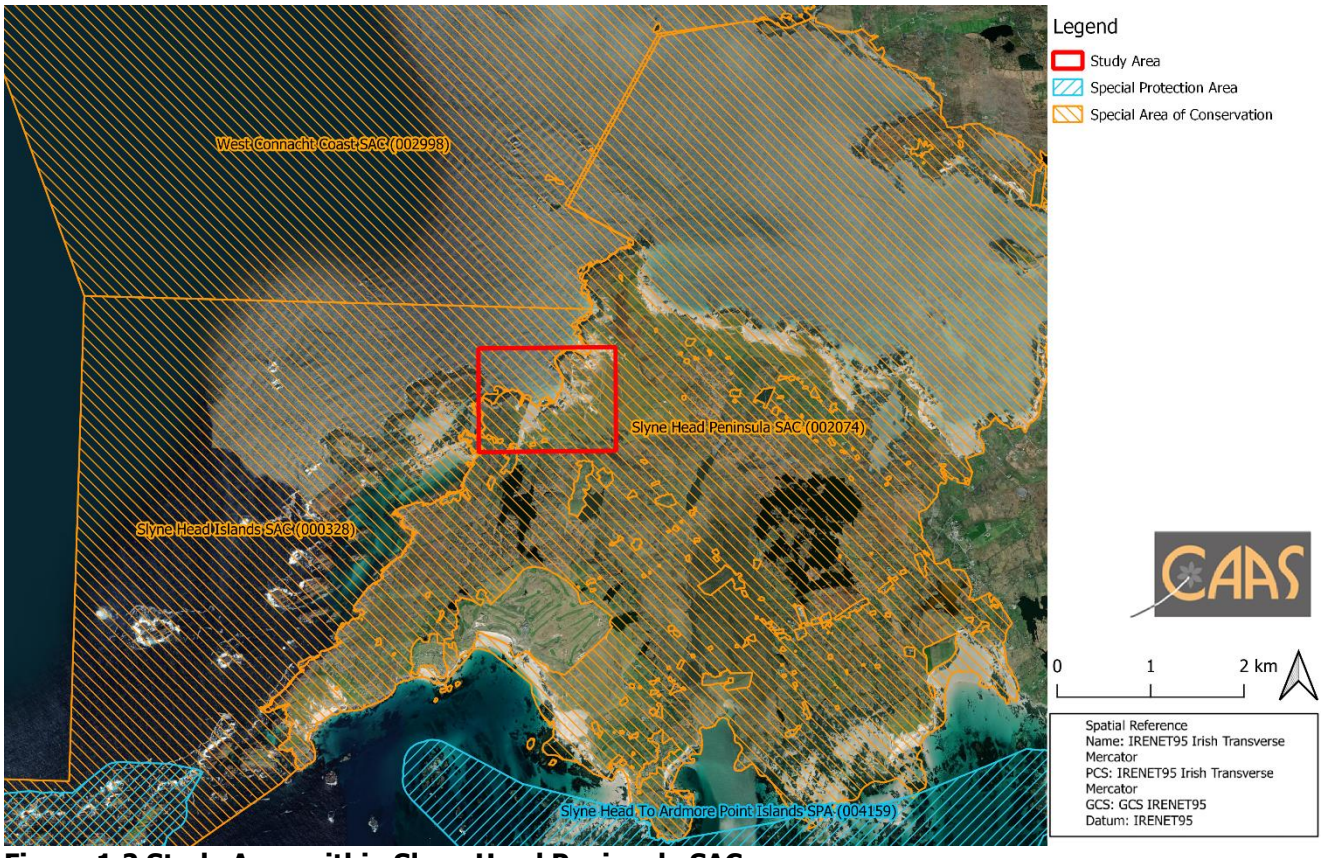


Figure 1.2 Study Area within Slyne Head Peninsula SAC

1.3.1 Critical Infrastructure

Table 1.1 Summary of Wastewater infrastructure at Doonloughan

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
No toilet facilities on site No current WWTP on site at Doonloughan Nearest settlement with WWTP in Clifden (WWTP Reg #D0198)	Spare capacity available[2]	WWTP in Clifden has spare capacity available[3] if wastewater facilities are required on site

Table 1.2 Summary of Drinking Water infrastructure at Doonloughan

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
Nearest serviced settlement to Doonloughan is Clifden	Clifden	Capacity available – Level of service (LoS) improvement required[4].	Due to the nature of site the current lack of drinking water infrastructure is sufficient

Table 1.3 Summary of Transport infrastructure at Doonloughan

Nearest Settlement	Current Transport Infrastructure	Comment
Clifden	Can be accessed via the nearby village of Ballyconneely There are no parking facilities on site	Car parking facilities should be considered to alleviate pressures faced at Doonloughan

[2] https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/galway/
[3] https://consult.galway.ie/sites/default/files/Chapter%207%20final.pdf
[4] https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/galway/

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

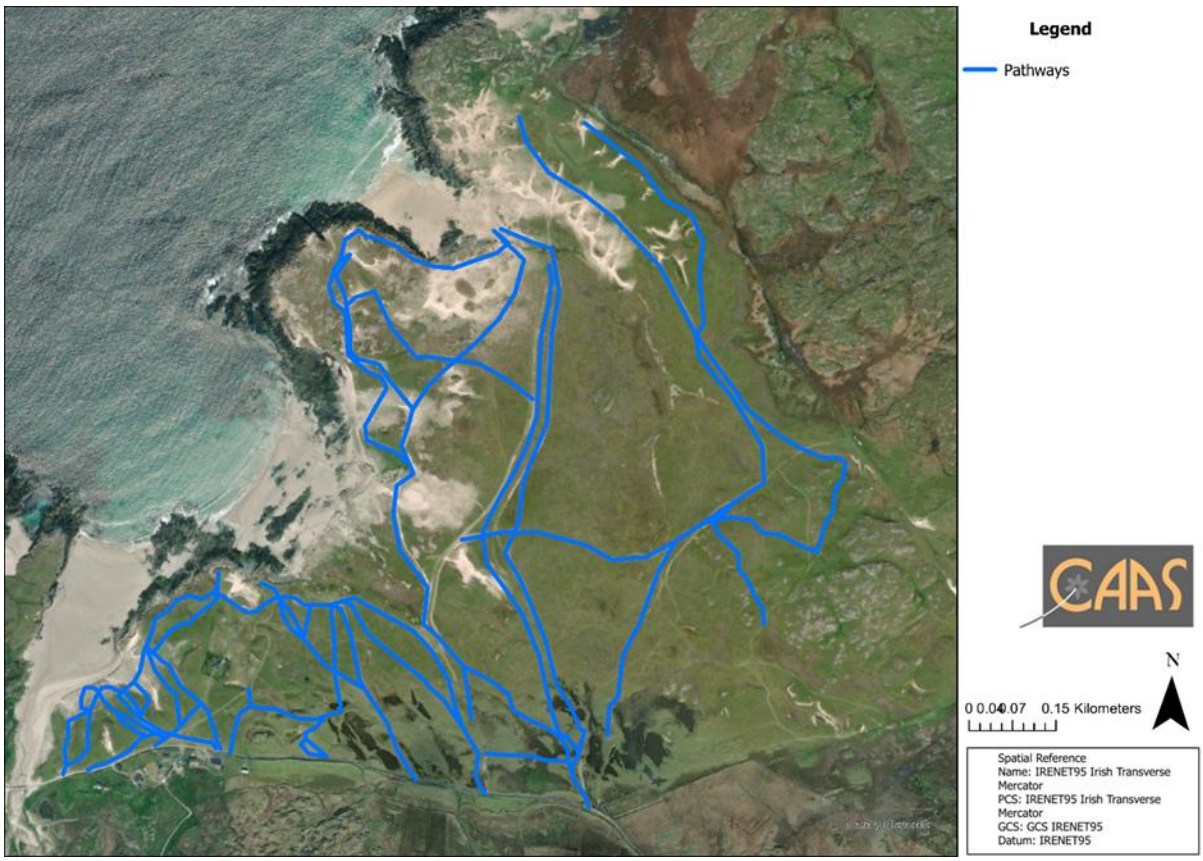


Figure 1.3 Pathways identified at Doonloughan

The paths at Doonloughan consist of mostly sand beach and rock outcrop that are highly variable in terms of width. There are a large number of breakout paths at Doonloughan which have been caused by use of vehicles (Figure 1.4) and are generally the same width. There is a severe degree of compaction in these breakout paths, where sand has been exposed with high levels of erosion.

Figure 1.4 Pathway at Doonloughan

1.4.2 Features Condition

No features or signage were identified during the feature and signage mapping at Doonloughan.

1.4.3 Hazards

No significant hazards were recorded during hazard mapping at Doonloughan.

1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 62 visitors (which represent 22 group observations), a large decrease when compared to 202 visitors in 2021. The site is most popular amongst the couple group, with family being the most common in 2021 with the dominant mode of transport being car. The average dwell time for the site is 48 minutes; however, the following activities were undertaken during the survey (listed in order of occurrence rate):

Activity Type
Off road driving
Exploring off trail
Camping
Sitting
Dog walking (off lead)
BBQing
Photographing
Swimming, sailing, surfing, kayaking, bodyboarding and other aquatic sports
Digging
Dogwalking (on lead)
Kayaking
Surfing
Swimming

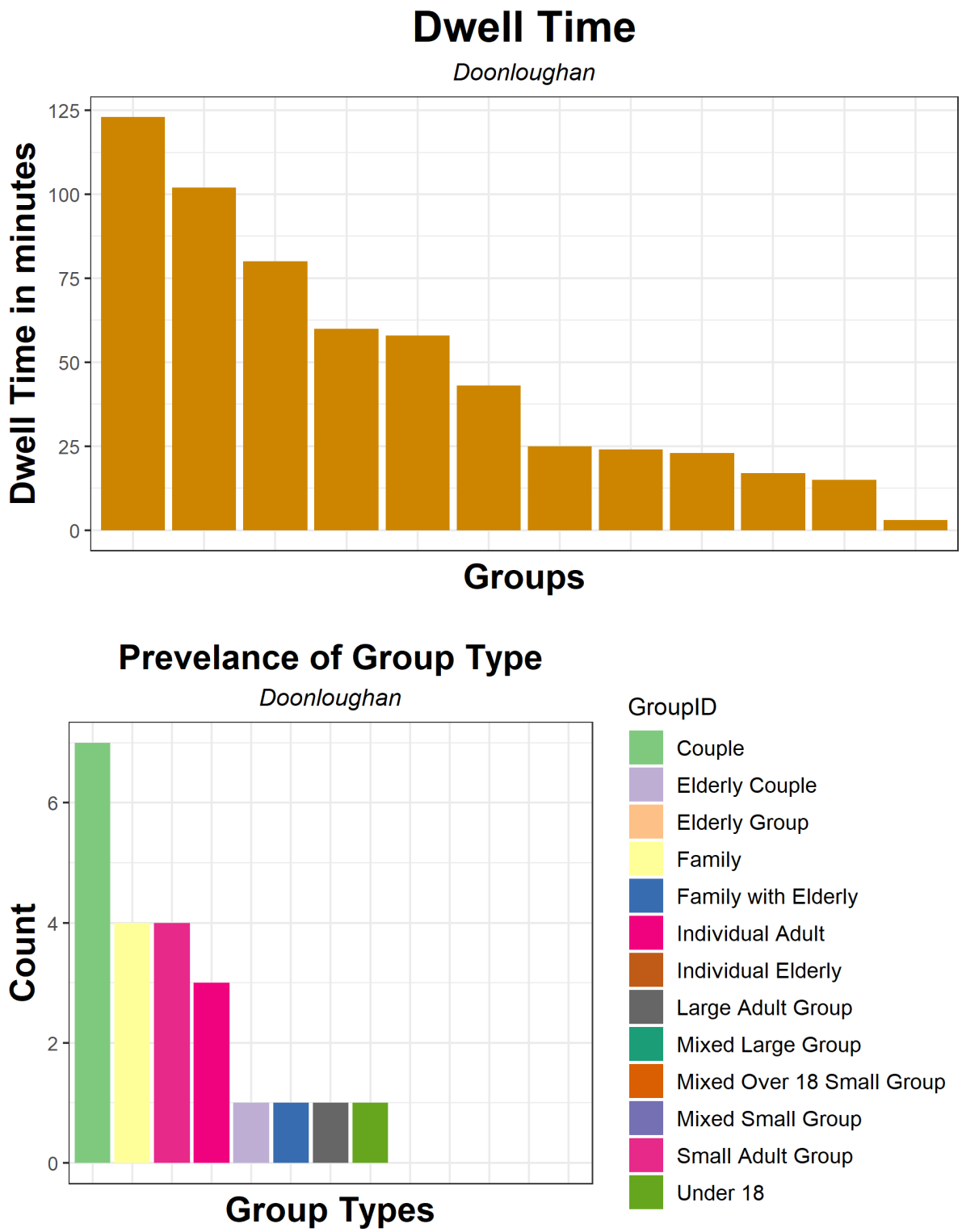


Figure 1.5 Groups of visitors that visited Doonloughan

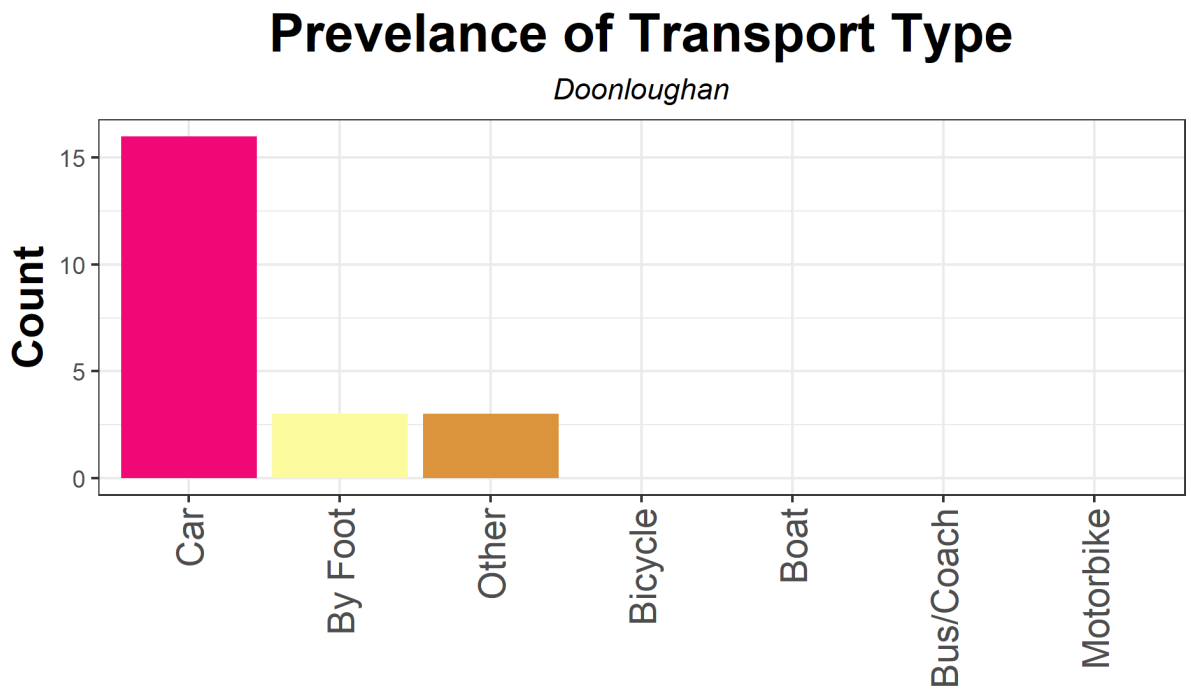


Figure 1.6 Mode of transport used to visit Doonloughan

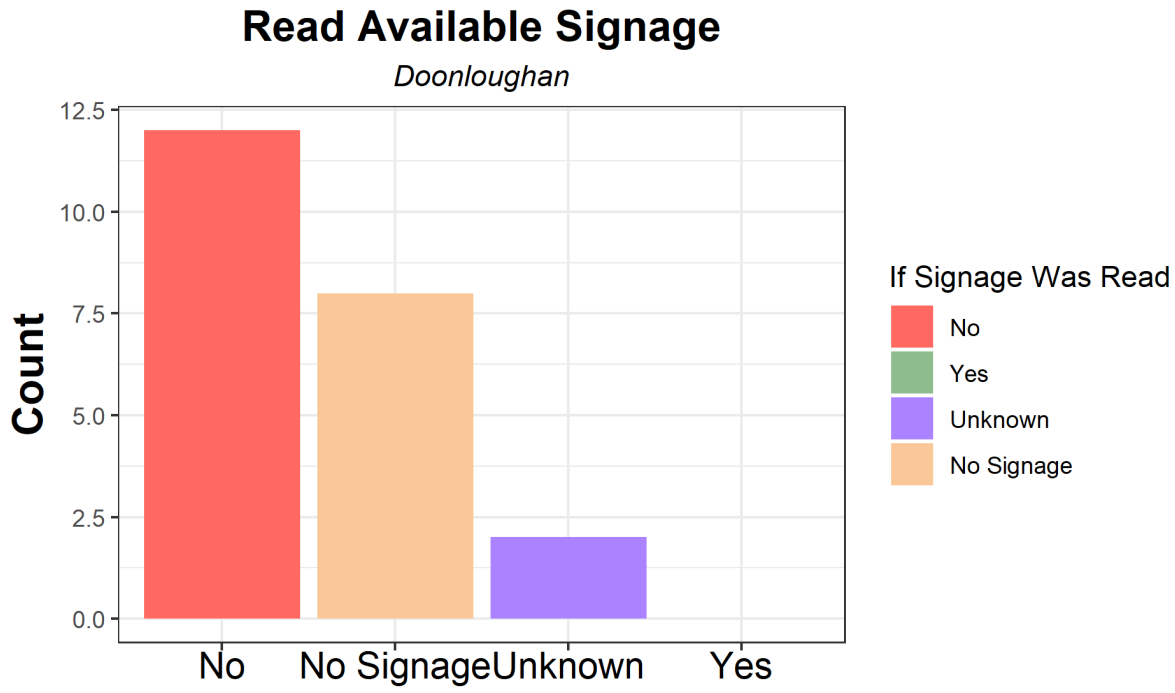


Figure 1.7 Use of Interpretive Material at Doonloughan

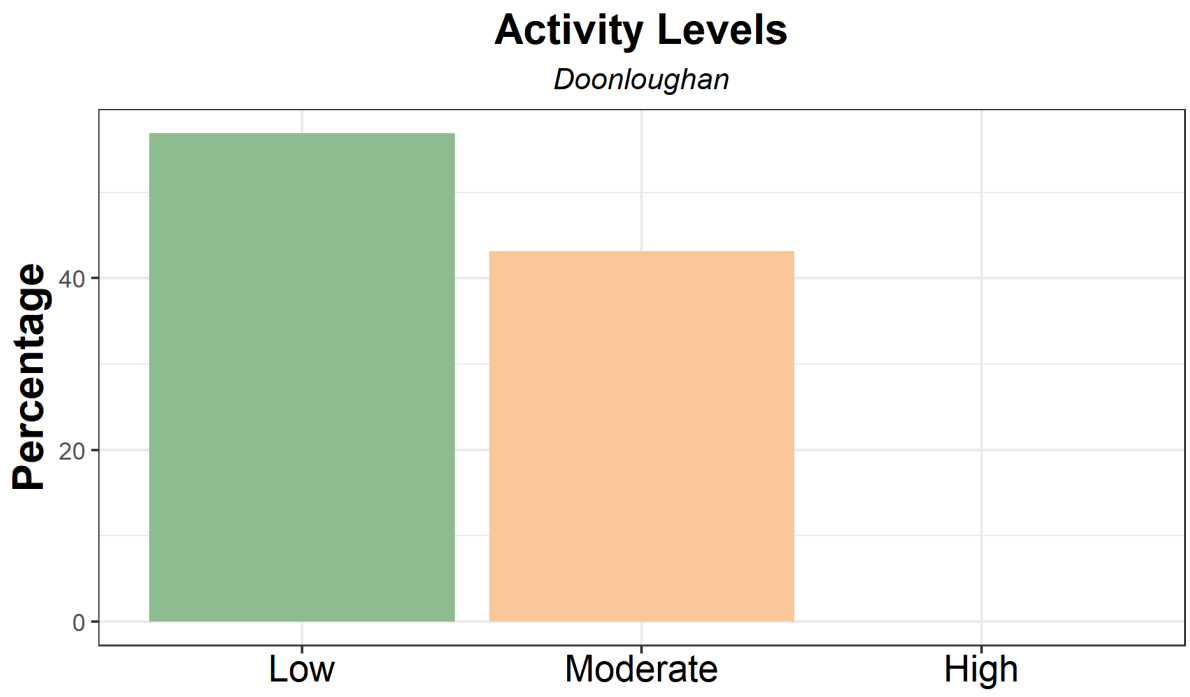


Figure 1.8 Categories of Activity Levels Observed at Doonloughan

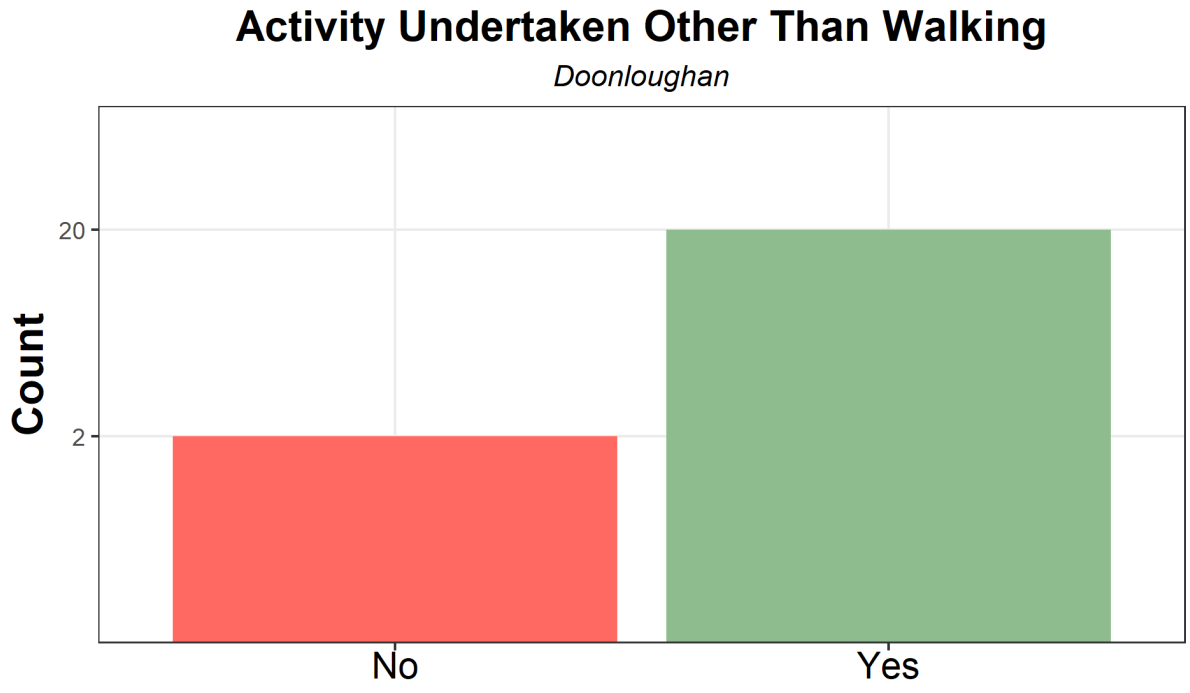


Figure 1.9 Activities undertaken other than walking

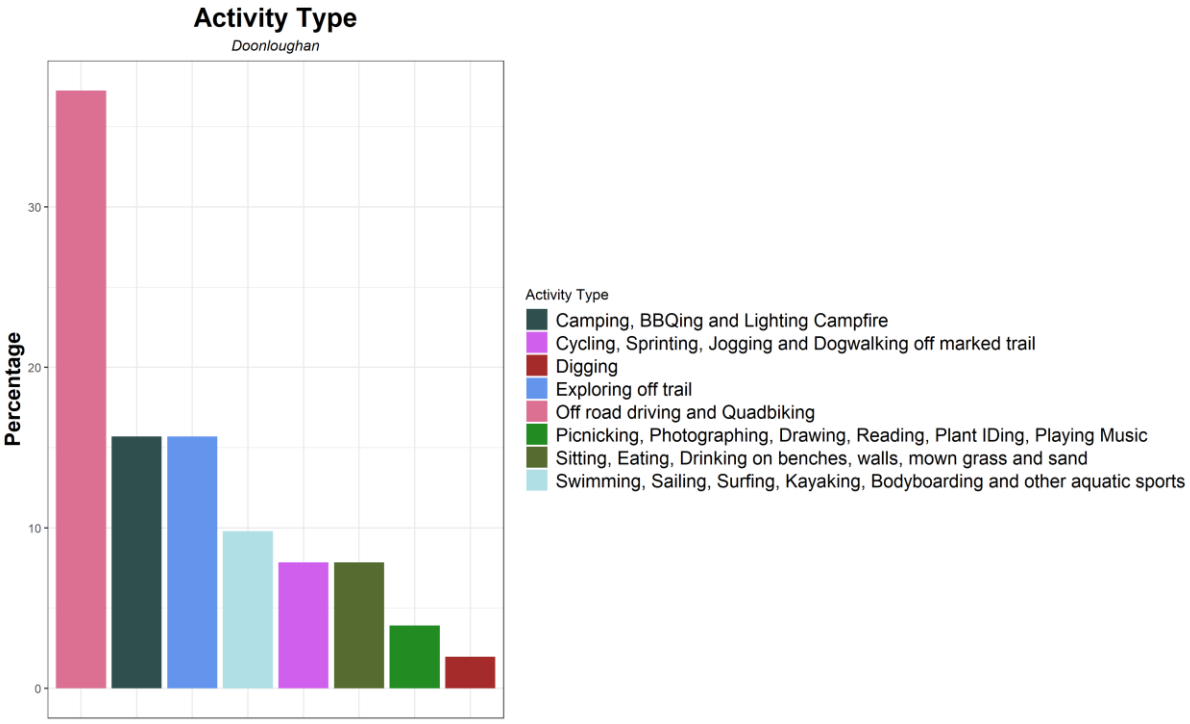


Figure 1.10 Range of Visitor Activities Observed at Doonloughan

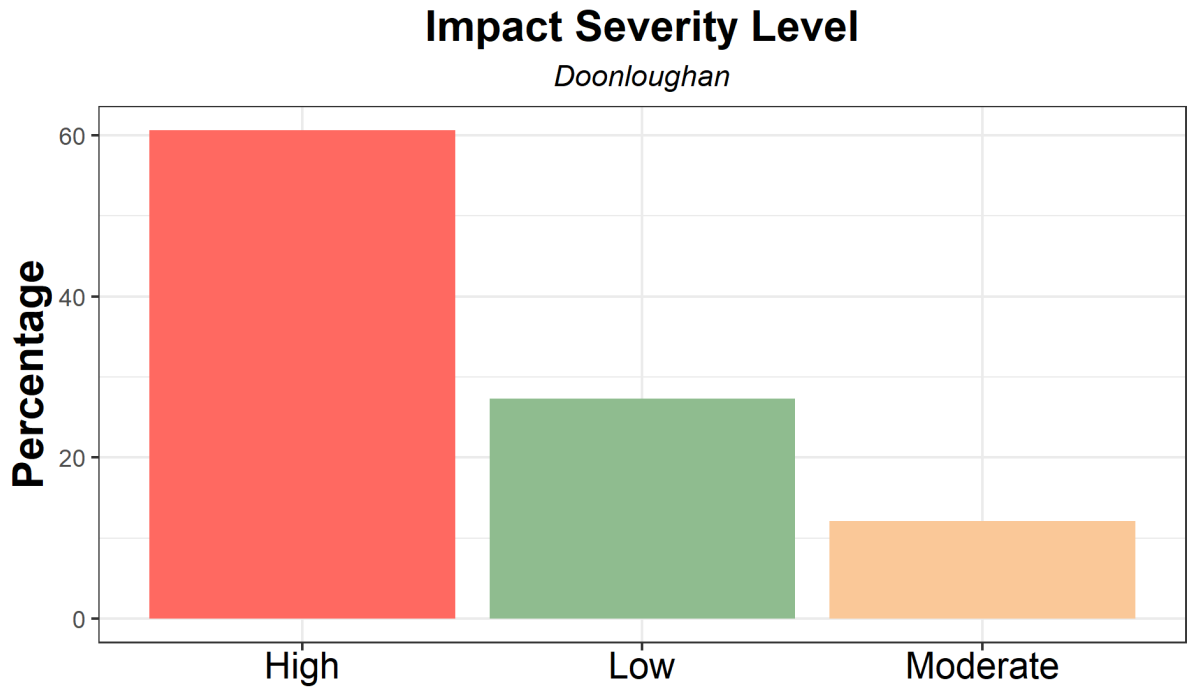


Figure 1.11 Categories of Environmental Impact Levels Observed at Doonloughan as a result of Visitor Activities

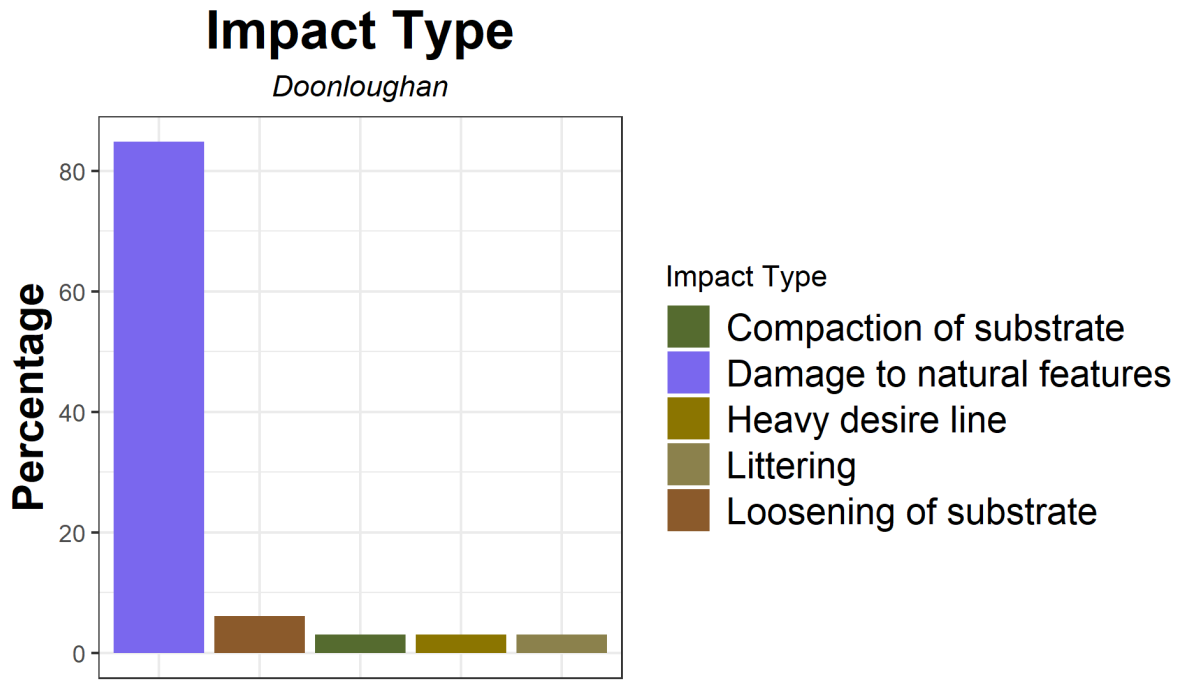


Figure 1.12 Range of Environmental Impacts Observed at Doonloughan

The environmental impacts that were observed and recorded used the same coding system as the Wild Atlantic Way Monitoring[5]. 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 1.13 Visitor movement patterns at Doonloughan

[5] See Appendix I for more detail

Of the 22 groups recorded on site 91% of them undertook activities other than walking. These activities (identified above) resulted in 23 impacts being observed on site during the survey, while 33 impacts were observed in 2021. Thus, 45% of activities on site resulted in impacts on the environment, 42% of activities resulted in impacts in 2021. The impact severity levels varied with 87% of the impacts being low an increase from 27% in 2021, 13% of impacts being moderate, and 61% of impacts being high severity, down from 61% in 2021. The impacts identified for the site were:

Impact Type	Count
Compaction of substrate	11
Damage to natural features	10
Temporary disturbance	1
Temporary disturbance to wildlife	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 Doonloughan produced a number of changes from the 2021 Visitor Characterisation Survey. Noted changes include;

- A decrease was noted between the number of impacts observed from 2022 when compared to 2021, along with a decrease in the percentage of high impacts observed;
- A small decrease in the percentage of visitors who drove to the site and opted instead to walk;
- Decrease in the percentage of camping related activities recorded on site; and,
- Reduction of visitors during the 8-hour survey by 69% to 62 visitors over 22 groups.

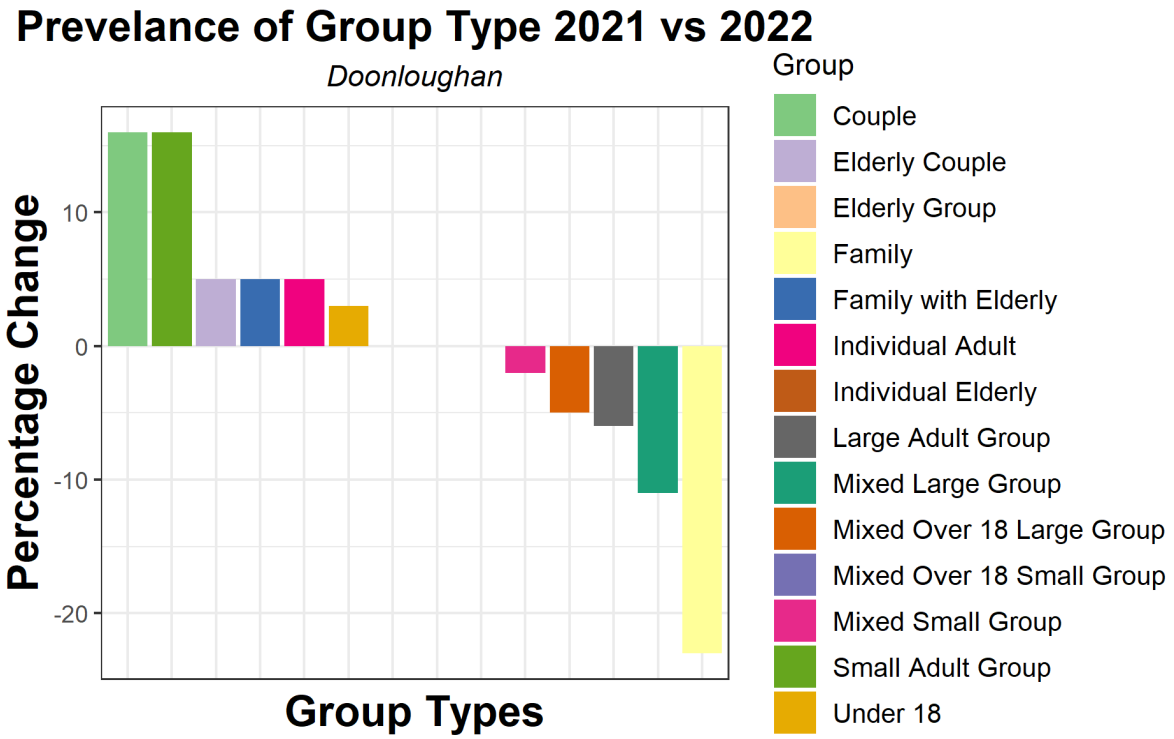


Figure 1.14 Percentage Change in groups of visitors that visited Doonloughan between 2021 and 2022

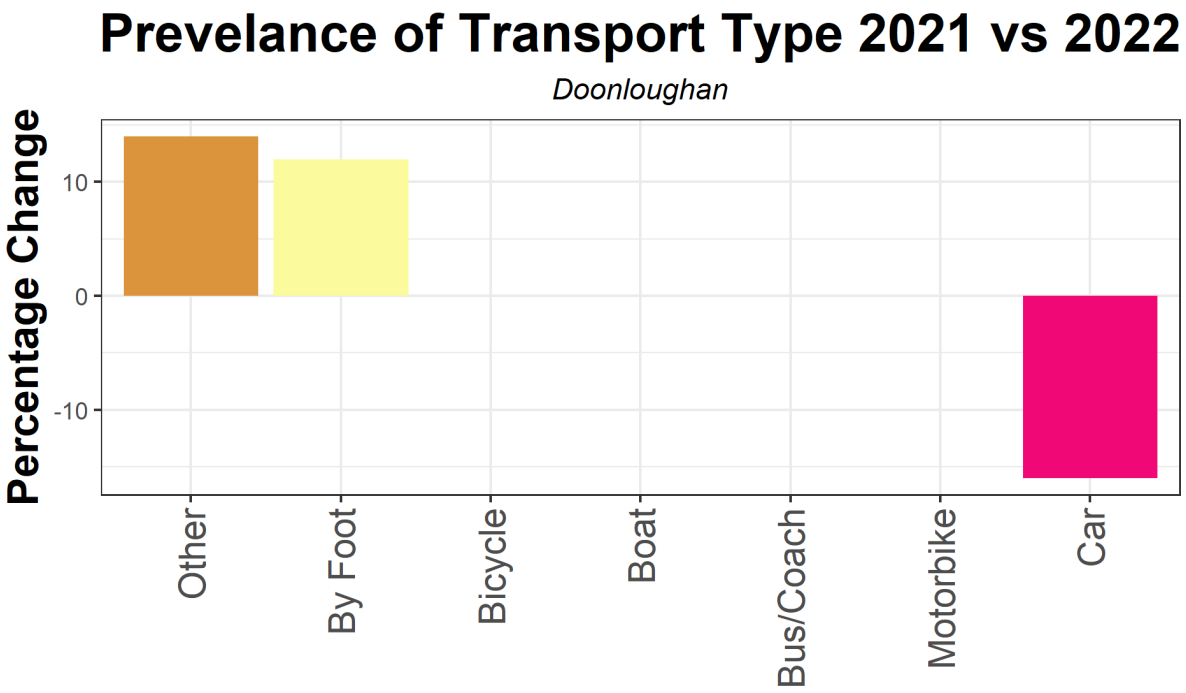


Figure 1.15 Percentage Change in mode of transport used to visit Doonloughan between 2021 and 2022

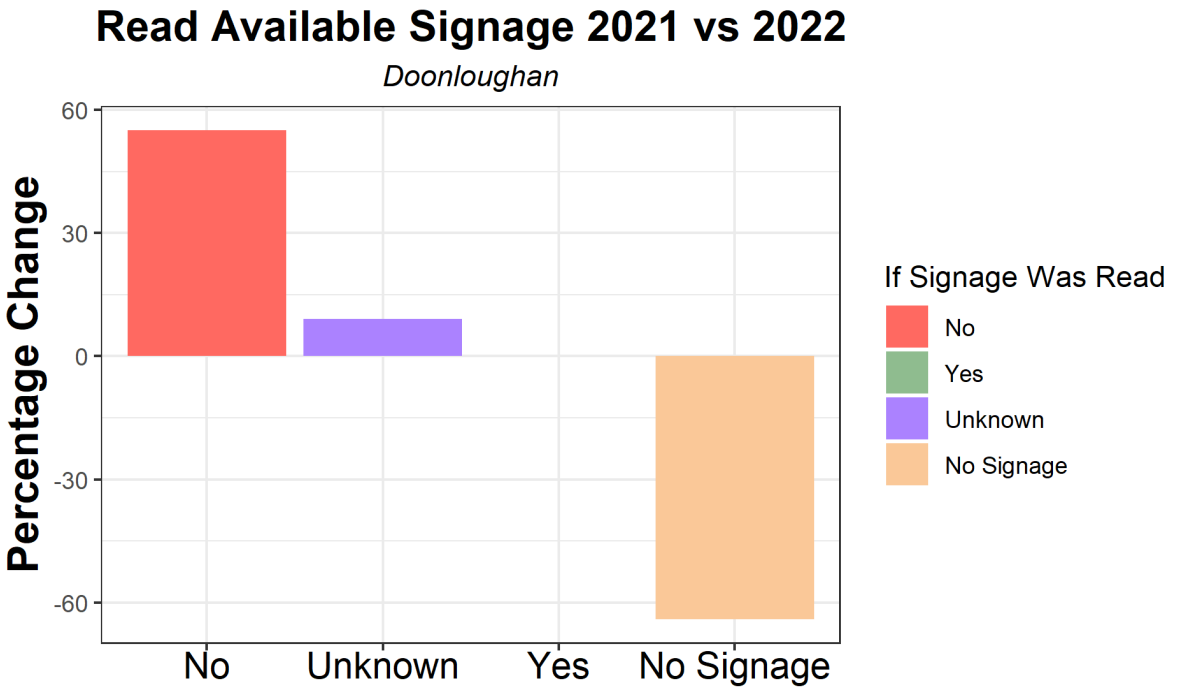


Figure 1.16 Percentage change in use of Interpretive Material at Doonloughan between 2021 and 2022

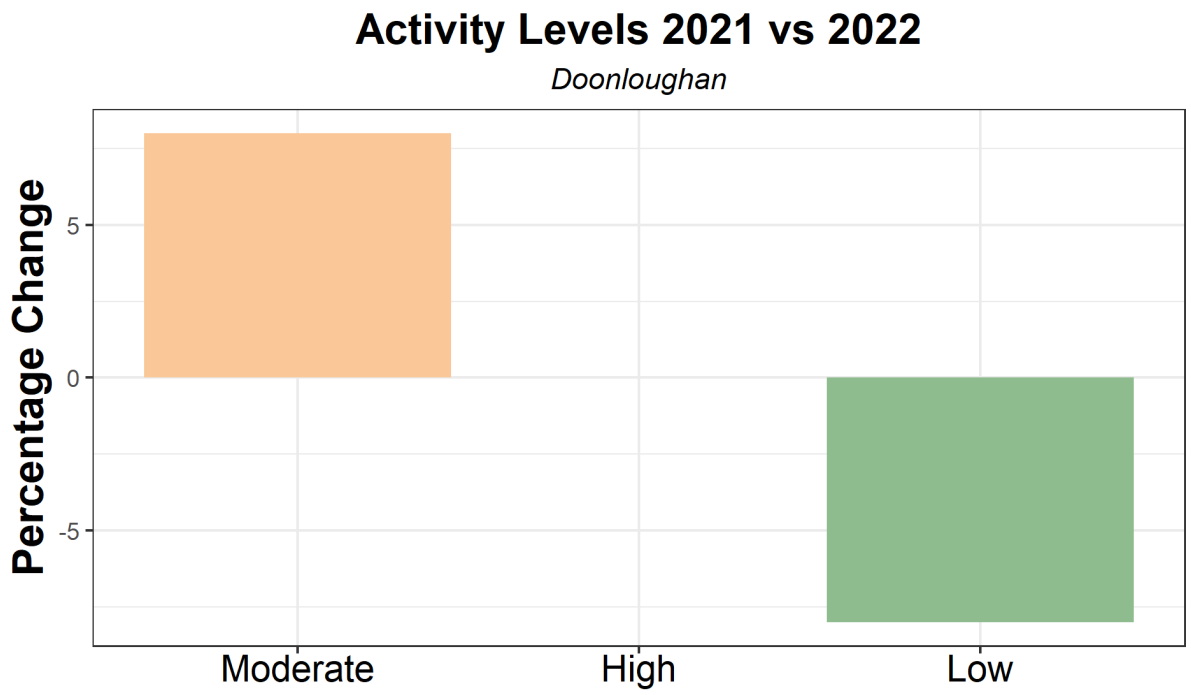


Figure 1.17 Percentage change in categories of Activity Levels Observed at Doonloughan between 2021 and 2022

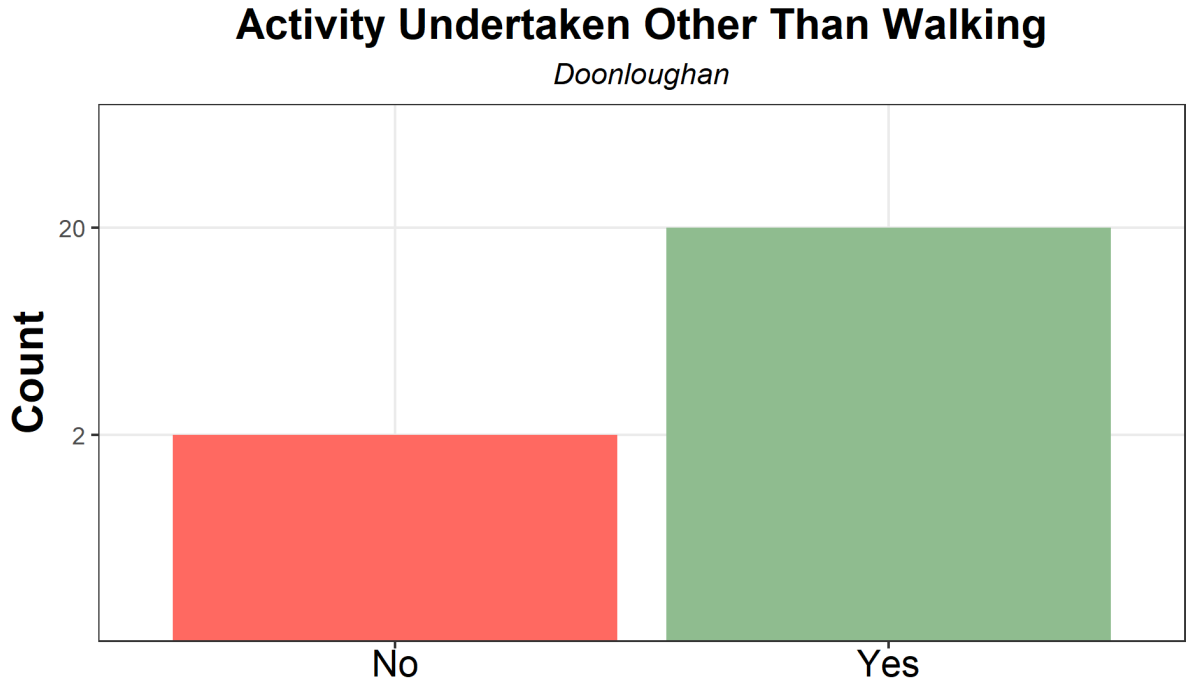


Figure 1.18 Percentage change in activities undertaken other than walking at Doonloughan between 2021 and 2022

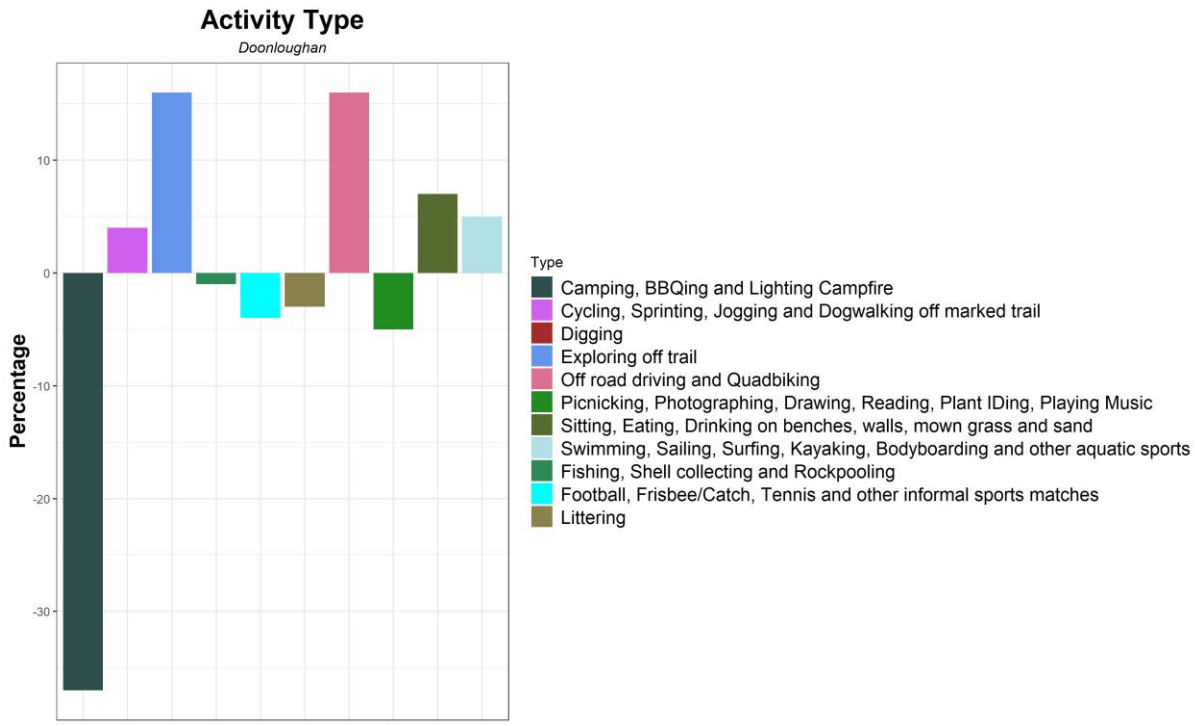


Figure 1.19 Percentage change in range of Visitor Activities Observed at Doonloughan between 2021 and 2022

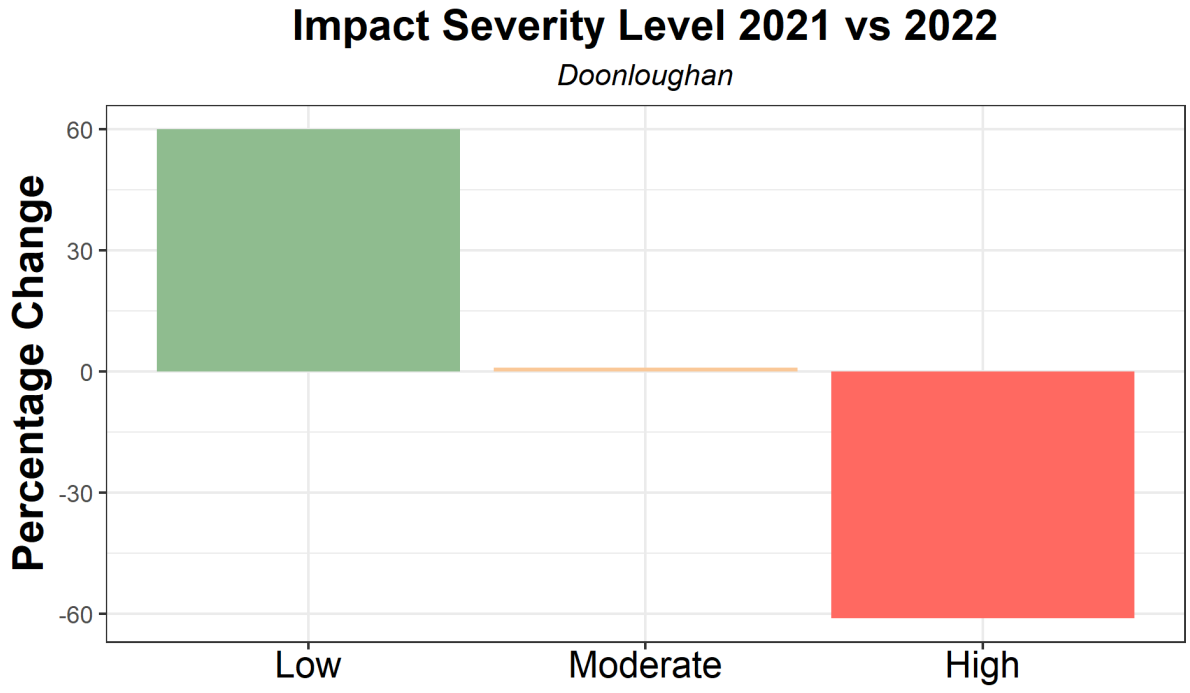


Figure 1.20 Percentage change in categories of Environmental Impact Levels Observed at Doonloughan as a result of Visitor Activities[6] between 2021 and 2022

[6] Impact severity was measures 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.

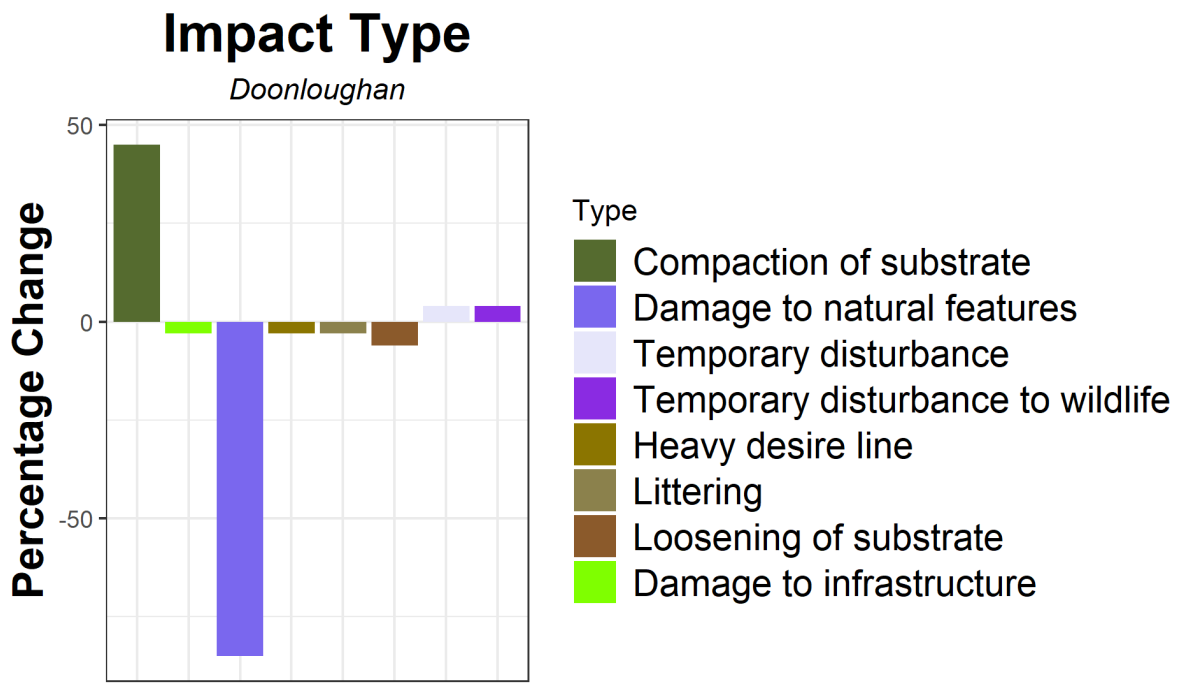


Figure 1.21 Percentage change in range of Environmental Impacts Observed at Doonloughan between 2021 and 2022

Table 1.4 Summary of changes with previous survey results

Survey	Notable Differences	Comment
Visitor Dwell Time	• Dwell time was unable to be monitored efficiently in the 2021 survey	No significant changes observed
Prevalence of Group Type	• 16% increase in couples • 23% decrease in families • 16% increase in small adult groups	Noted increase of percentage of couple and small groups visiting the site
Prevalence of Transport Type	• 12% increase by foot • 16% decrease by car	Increase in percentage of visitors arriving by foot and thus a decrease was noted in percentage of visitors arriving by car
Read Available Signage	• Signage not read increased by 55% • Unknown increased by 9%	Significant increase in the percentage of visitors not reading available signage on site
Activity Levels	• No change in percentage of high activity levels observed • Low activity levels decreased by 8% • Moderate activity levels increased by 8%	No significant changes observed
Activity Undertaken Other Than Walking	• Percentage of visitors undertaking activities other than walking decreased by 7%	No significant changes observed
Activity Type	• 37% decrease in camping related activities • 16% increase in exploring off trail • 16% increase in off road driving	Significant increase in the percentage of visitors partaking in camping related activities
Impact Severity Level	• High impact level decreased by 61% • Low impact level increased by 60% • Moderate impact level increased by 1%	Large increase in low level impacts. This is due to lower numbers of impacts being recorded during 2022

Survey	Notable Differences	Comment
Impact Type	• 45% percentage increase in compaction of substrate • 85% percentage decrease in damage to natural features • 4% percentage increase in both temporary disturbance and temporary disturbance to wildlife	Reduction in number of impacts due to less visitors, percentage of impacts observed similar between 2021 and 2022

Figure 1.22 Desire lines and erosion seen at Doonloughan

1.7 Ecological Monitoring Results

1.7.1 Ecological Constraints

The habitats within 2km of Doonloughan are sensitive to pollution, hydrological changes, alien species, land use management and overgrazing while species within these habitats are sensitive to habitat availability and water quality.

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

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[002074]	Slyne Head Peninsula SAC	0.00	SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Semi-natural dry grasslands and scrubland facies on calcareous substrates *(Festuco-Brometalia)* * important orchid sites [6210], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Annual vegetation of drift lines [1210], Slender naiad *(Najas flexilis)* [1833], Perennial vegetation of stony banks [1220], Mediterranean salt meadows *(Juncetalia maritimi)* [1410], Alkaline fens [7230], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Petalwort *(Petalophyllum ralfsii)* [1395], Large shallow inlets and bays [1160], Coastal lagoons [1150], Common Bottlenose Dolphin *(Tursiops truncatus)* [1349], Oligotrophic waters containing very few minerals of sandy plains *(Littorelletalia uniflorae)* [3110], *Juniperus communis* formations on heaths or calcareous grasslands [5130], Lowland hay meadows *(Alopecurus pratensis, Sanguisorba officinalis)* [6510], European dry heaths [4030], Reefs [1170], Machairs * in Ireland [21A0], Molinia meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)* [6410], Embryonic shifting dunes [2110]

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[000328]	Slyne Head Islands SAC	0.27	SAC	Common Bottlenose Dolphin *(Tursiops truncatus)* [1349], Reefs [1170], Grey seal *(Halichoerus grypus)* [1364]
[000328]	Slyne Head Islands pNHA	0.59	pNHA	
[002998]	West Connacht Coast SAC	1.31	SAC	Bottlenose dolphin *(Tursiops truncatus)* [1349]

1.7.2 Habitat Descriptions

The habitats at Doonloughan are dominated by a network of machairs (Fossitt Code CD6) which align with the Annex I habitat for which the SAC is designated (Machairs* in Ireland [21A0]). As Doonloughan is a coastal area, the rest of the habitat is made up of rocky sea cliffs (Fossitt Code CD6).

Vehicular movement is evident throughout the habitat; there is severe and dispersed damage to the protected features of the site due to amenity use. Direct intervention is needed throughout the site.

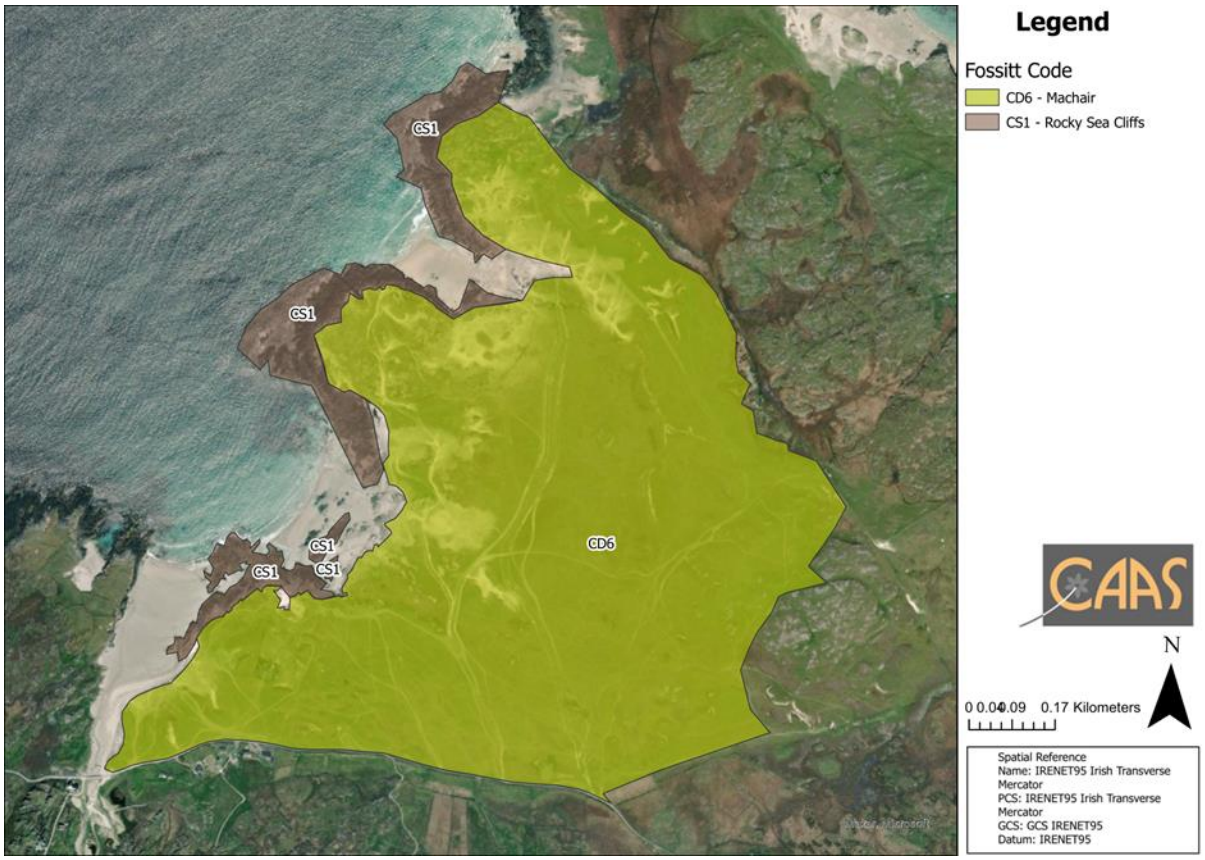


Figure 1.23 Habitats present at Doonloughan

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

Due to its coastal location, the NBDC data shows that there are a large number of marine mammals in the area including dolphins and seals. With regards to terrestrial mammals, a small number were recorded including species such as rabbits and hares.

Table 1.6 List of mammals that have been recorded at NBDC Hectad[7] L54

Group	Common name	Scientific name	Number recorded
Marine mammal	Atlantic White-sided Dolphin	*Lagenorhynchus acutus*	5
Marine mammal	Bottle-nosed Dolphin	*Tursiops truncatus*	10
Marine mammal	Common Dolphin	*Delphinus delphis*	11
Marine mammal	Common Porpoise	*Phocoena phocoena*	1
Marine mammal	Common Seal	*Phoca vitulina*	2
Marine mammal	Cuvier's Beaked Whale	*Ziphius cavirostris*	6
Marine mammal	Grey Seal	*Halichoerus grypus*	1,750
Marine mammal	Long-finned Pilot Whale	*Globicephala melas*	3
Marine mammal	Minke Whale	*Balaenoptera acutorostrata*	1
Marine mammal	Sperm Whale	*Physeter macrocephalus*	1
Marine mammal	Striped Dolphin	*Stenella coeruleoalba*	2
Marine mammal	True's Beaked Whale	*Mesoplodon mirus*	1
Marine mammal	White-beaked Dolphin	*Lagenorhynchus albirostris*	1
Terrestrial mammal	Daubenton's Bat	*Myotis daubentonii*	2
Terrestrial mammal	Eurasian Badger	*Meles meles*	1
Terrestrial mammal	European Otter	*Lutra lutra*	2
Terrestrial mammal	European Rabbit	*Oryctolagus cuniculus*	4
Terrestrial mammal	Irish Hare	*Lepus timidus subsp. hibernicus*	6
Terrestrial mammal	Red Fox	*Vulpes vulpes*	1
Terrestrial mammal	Soprano Pipistrelle	*Pipistrellus pygmaeus*	4

1.7.5 NBDC Records of Wintering Birds

Table 1.7 List of wintering birds that have been recorded at NBDC Hectad[8] L54

Group	Common name	Scientific name	Number recorded
Bird	Alcidae	*Alcidae*	1
Bird	American Golden Plover	*Pluvialis dominica*	5
Bird	Arctic Tern	*Sterna paradisaea*	6
Bird	Barnacle Goose	*Branta leucopsis*	1
Bird	Bar-tailed Godwit	*Limosa lapponica*	1
Bird	Black Guillemot	*Cepphus grille*	6
Bird	Black-headed Gull	*Larus ridibundus*	8
Bird	Blue-winged Teal	*Anas discors*	1
Bird	Brent Goose	*Branta bernicla*	1
Bird	Canada Goose	*Branta canadensis*	1
Bird	Common Coot	*Fulica atra*	4
Bird	Common Eider	*Somateria mollissima*	4
Bird	Common Greenshank	*Tringa nebularia*	4
Bird	Common Moorhen	*Gallinula chloropus*	12
Bird	Common Pochard	*Aythya ferina*	1
Bird	Common Redshank	*Tringa totanus*	6
Bird	Common Sandpiper	*Actitis hypoleucos*	4
Bird	Common Scoter	*Melanitta nigra*	3

[7] 10km^2 grid
[8] 10km^2 grid

Group	Common name	Scientific name	Number recorded
Bird	Common Shelduck	*Tadorna tadorna*	4
Bird	Common Snipe	*Gallinago gallinago*	13
Bird	Common Tern	*Sterna hirundo*	2
Bird	Dunlin	*Calidris alpina*	8
Bird	Eurasian Curlew	*Numenius arquata*	7
Bird	Eurasian Dotterel	*Charadrius morinellus*	4
Bird	Eurasian Oystercatcher	*Haematopus ostralegus*	10
Bird	Eurasian Teal	*Anas crecca*	5
Bird	Eurasian Woodcock	*Scolopax rusticola*	4
Bird	European Golden Plover	*Pluvialis apricaria*	5
Bird	European Shag	*Phalacrocorax aristotelis*	11
Bird	European Storm-petrel	*Hydrobates pelagicus*	1
Bird	Fea's Petrel	*Pterodroma feae*	1
Bird	Glaucous Gull	*Larus hyperboreus*	2
Bird	Great Black-backed Gull	*Larus marinus*	14
Bird	Great Cormorant	*Phalacrocorax carbo*	7
Bird	Great Northern Diver	*Gavia immer*	4
Bird	Great Skua	*Stercorarius skua*	2
Bird	Grey Heron	*Ardea cinerea*	11
Bird	Grey Plover	*Pluvialis squatarola*	3
Bird	Herring Gull	*Larus argentatus*	11
Bird	Iceland Gull	*Larus glaucoides*	2
Bird	Jack Snipe	*Lymnocryptes minimus*	2
Bird	Lesser Black-backed Gull	*Larus fuscus*	11
Bird	Little Grebe	*Tachybaptus ruficollis*	11
Bird	Little Tern	*Sternula albifrons*	4
Bird	Long-billed Dowitcher	*Limnodromus scolopaceus*	1
Bird	Long-tailed Duck	*Clangula hyemalis*	2
Bird	Mallard	*Anas platyrhynchos*	13
Bird	Manx Shearwater	*Puffinus puffinus*	5
Bird	Mew Gull	*Larus canus*	17
Bird	Mute Swan	*Cygnus olor*	10
Bird	Northern Fulmar	*Fulmarus glacialis*	4
Bird	Northern Gannet	*Morus bassanus*	5
Bird	Northern Lapwing	*Vanellus vanellus*	17
Bird	Purple Sandpiper	*Calidris maritima*	3
Bird	Red-breasted Merganser	*Mergus serrator*	8
Bird	Red-throated Diver	*Gavia stellata*	3
Bird	Ringed Plover	*Charadrius hiaticula*	14
Bird	Ruddy Turnstone	*Arenaria interpres*	3
Bird	Sanderling	*Calidris alba*	4
Bird	Sandwich Tern	*Sterna sandvicensis*	2
Bird	Sora	*Porzana carolina*	1
Bird	Tufted Duck	*Aythya fuligula*	2
Bird	Water Rail	*Rallus aquaticus*	5
Bird	Whooper Swan	*Cygnus cygnus*	4
Bird	Wilson's Storm-petrel	*Oceanites oceanicus*	2

1.8 Recommendations

- As was recommended in 2021, signage on site should be installed in order to raise awareness of the importance of the habitats found at Doonloughan
- A trail network plan and visitor management strategy would help alleviate pressures on the protected features on site
- In order to restore the dunes on site, a habitat management plan should be instated

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[9]. 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.

[9] 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.