NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2022

SLIABH LIAG

for: **Fáilte Ireland**

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Sliabh Liag – Interesting Finds

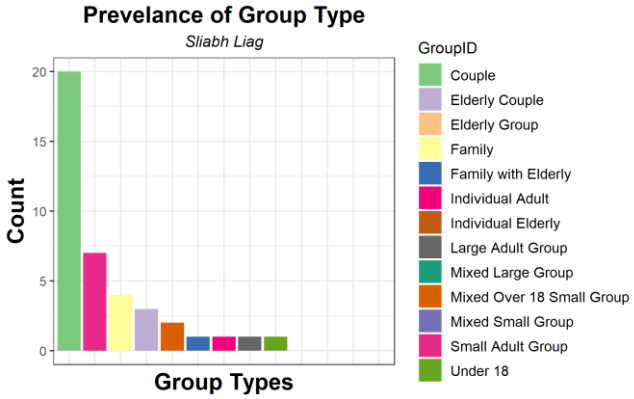
ECOLOGICAL HIGHLIGHTS

The site contains heathland habitat which is protected under the EU Habitats Directive. Heathland is an important habitat for carbon storage and provides habitat for special conservation interest species like Peregrine falcon (*Falco peregrinus*) [A103], which the area is designated for as West Donegal Coast SPA.

The coast of Sliabh Liag has seen a multitude of whale and dolphin visitors including bottle nosed dolphins, minke whales and even a sighting of a killer whale.

VISITOR NUMBERS AND DWELL TIME

- 124 people visited the site over 8 hours
- Average dwell time of 56 minutes



KEY RECOMMENDATIONS

- Where off trail paths or breakout points from existing trails are formed, the existing management system should be extended to prevent any damage from occurring.
- Seasonal communication projects should be set up to take advantage of the nature and habitats surrounding Sliabh Liag.

VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site well controlled with strong management practices in place.
- Most visitors arrived to site by foot.
- Over 80% of activities recorded by visitors were deemed to be of low level such as exploring off trail and sitting on benches.
- Most commonly observed impact was trampling.
- Majority of visitors did not read available signage on site, the majority of visitors in 2021 read available site signage.
- Severe reduction in number of visitors to Sliabh Liag.

Highlights:

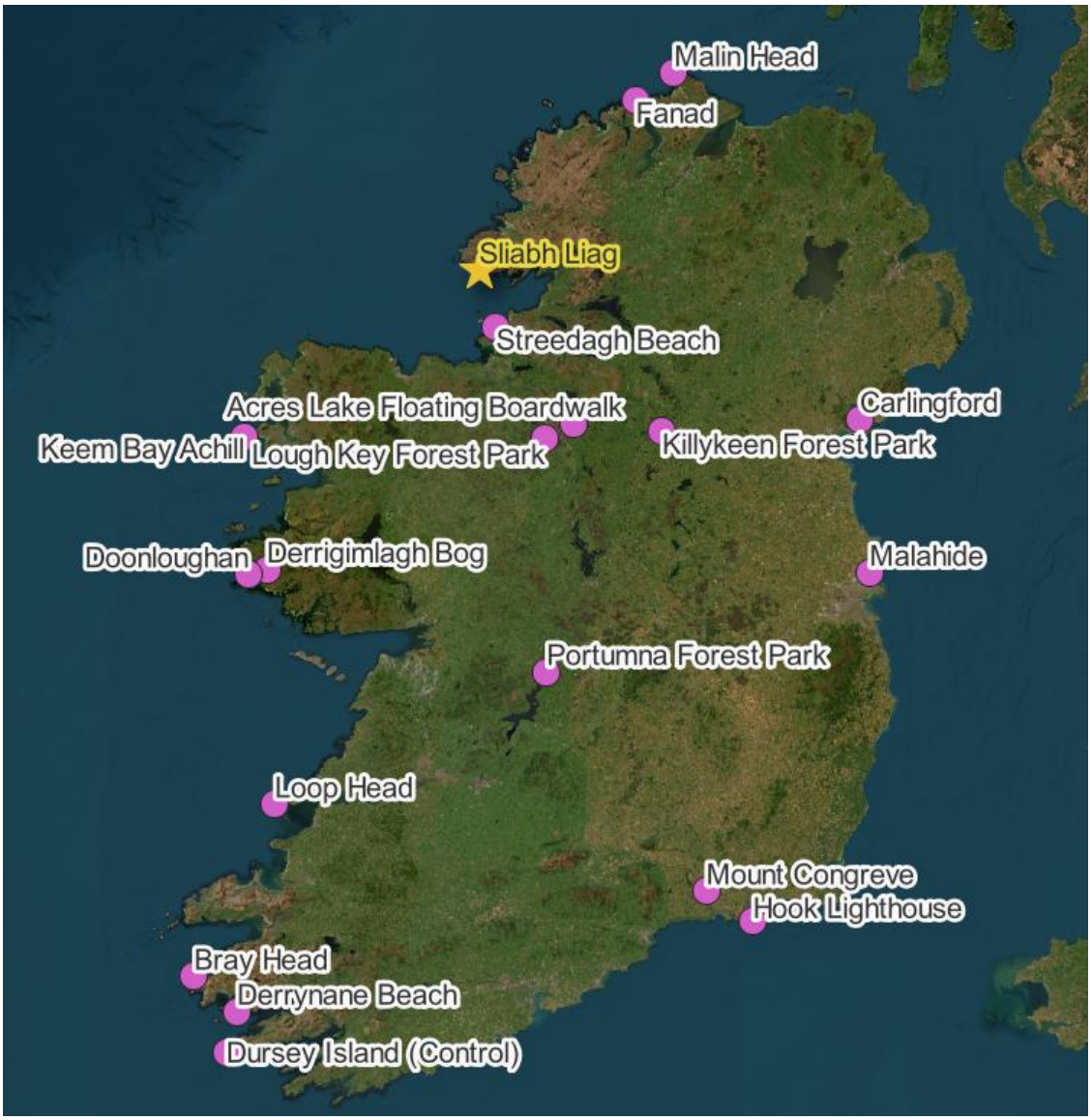
- Increase in number of impacts despite a lower number of visitors to the site when compared to 2021.
- Opportunities for or nature-based education events on site.
- Very high quality and extensive system of paths and erosion control.

1 Sliabh Liag

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; a map of all sites for the 2021 – 2025 programme 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, and the presence of 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.

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

This culminated in our ability to make useful recommendations to site owners and managers and ultimately to develop a practical set of Guidelines for Visitor management (from Planning thorough to Site Operation). Following on from the WAW monitoring data and in refining the methodology as a result, we aim to: understand what activities cause which impact; and, what are the factors which influence these activity choices by visitors?

The aim is to build on the knowledge gathered by the 2015-2019 programme. This will be used in combination with a continued engagement and exchange of knowledge with site managers, to tailor monitoring requirements, and enhance the programme outcomes, for each site chosen nationally for the new 2021-2025 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.

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 Sliabh Liag:

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 Sliabh Liag was undertaken on the 23rd of July 2022, with max temperatures reaching approximately 23° C, moderate to low levels of rainfall and moderate to 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 Sliabh Liag

The cliffs of Sliabh Liag[2] offer panoramic views of the Atlantic Ocean, along with views of the Sligo Mountains to the south of Sliabh Liag. They are the second highest cliffs in Ireland. Sliabh Liag is located close to the village of Carrick in south western Donegal. The site includes World War 2 'Éire' sign at the next to the viewing point car park. As a coastal cliff location, Sliabh Liag has habitats such as dry siliceous heath, wet heath and a dystrophic lake, and is also completely inside both the Slieve League SAC and the West Donegal Coast SPA.

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
[2] The name 'Sliabh Liag' is used throughout - except when referencing official site designation for SPA & SAC's which refer to 'Slieve League'.

Figure 1.1 Sliabh Liag

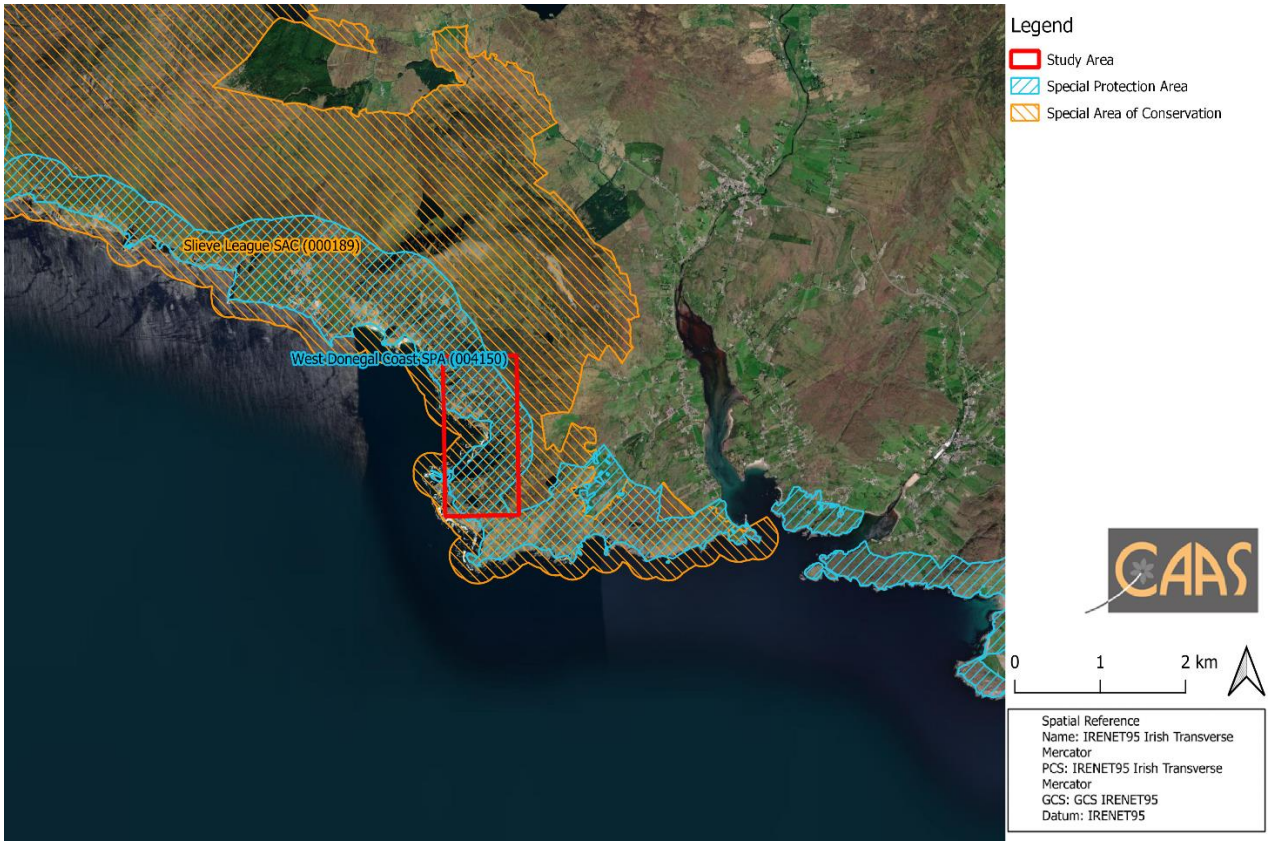


Figure 1.2 Study Area within Slieve League SAC

1.3.1 Critical Infrastructure

Table 1.1 Summary of Wastewater infrastructure at Sliabh Liag

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
Toilet facilities are available on site No current WWTP on site at Sliabh Liag Nearest settlements with WWTP in Kilcar (WWTP Reg #D0520), Carrick (WWTP Reg #A0367) and Killybegs (WWTP Reg #D0011)	Spare capacity available at Killybegs WWTP and no spare capacity at Carrick WWTP[3]	Current wastewater facilities are sufficient

Table 1.2 Summary of Drinking Water infrastructure at Sliabh Liag

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
Nearest serviced settlement to Sliabh Liag is An Charraig (Carrick)	Owenteskiny	Capacity available – Level of service (LoS) improvement required[4]	Current water supply is sufficient

[3] https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/donegal/
[4] https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/donegal/

Table 1.3 Summary of Transport infrastructure at Sliabh Liag

Nearest Settlement	Current Transport Infrastructure	Comment
Carrick	Accessible from Carrick vis L095 with parking facilities on site	Current transport infrastructure is sufficient

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

The main paths at Sliabh Liag are largely composed of reinforced pathways of varied width and type. These range for high quality engineered and surfaced paths and steps to areas of eroded trails – particularly in elevated and cliff-top areas. There are some break out paths from these surfaced pathways. There is evidence of trampling along these pathways along with grazing.

This is a well-managed site – the installation of stone paving and steps along the trail provides a clear direction of travel and sit well within the landscape providing high quality erosion protection. In places, the path width is wider than the infrastructure provided due to high volumes of visitors.

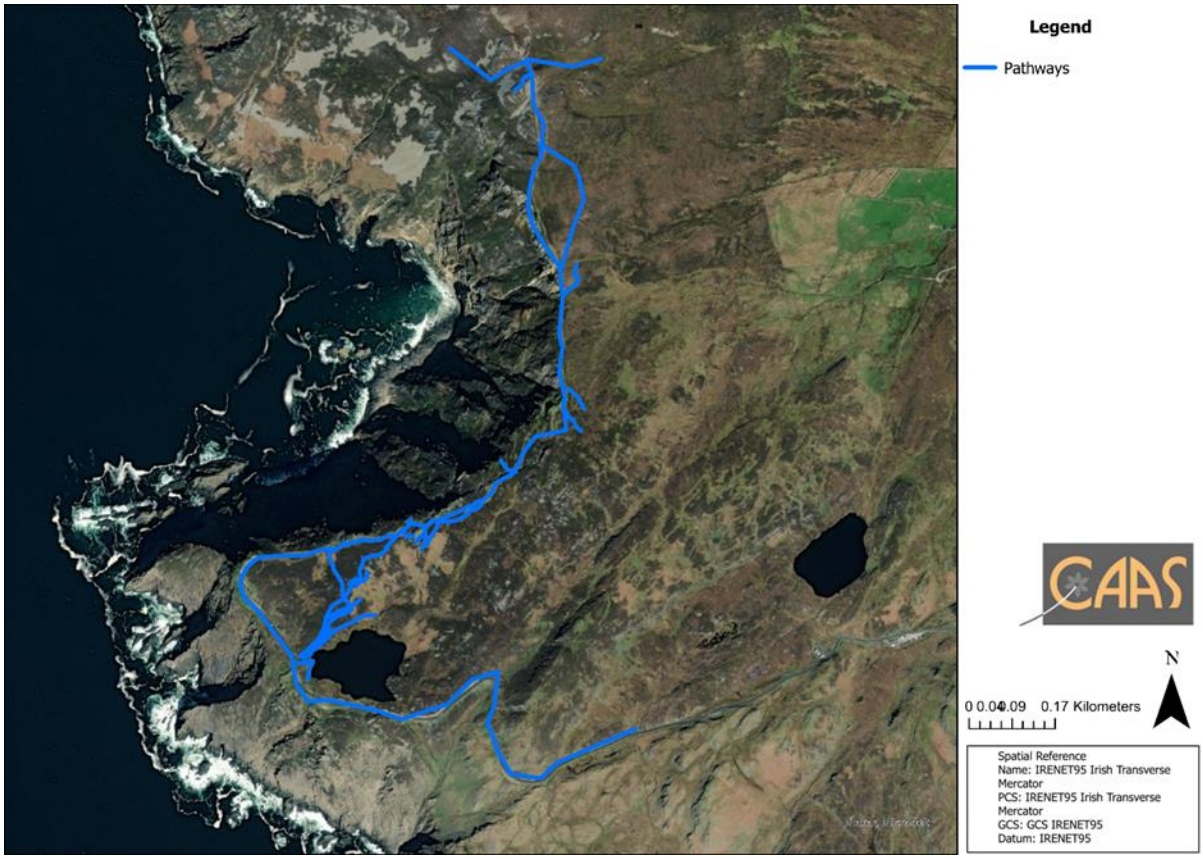


Figure 1.3 Pathways identified at Sliabh Liag

Figure 1.4 Pathways at Sliabh Liag

1.4.2 Features Condition

Sliabh Liag contains various amenities such as a car parks, toilets, bins, benches and areas to get coffee. Along with this there is a wide variety of signage on site including historical and wildlife information signs, trail maps and postings that mark these trails. Also, there are warning signs for dangerous cliffs and a number of no littering signs.

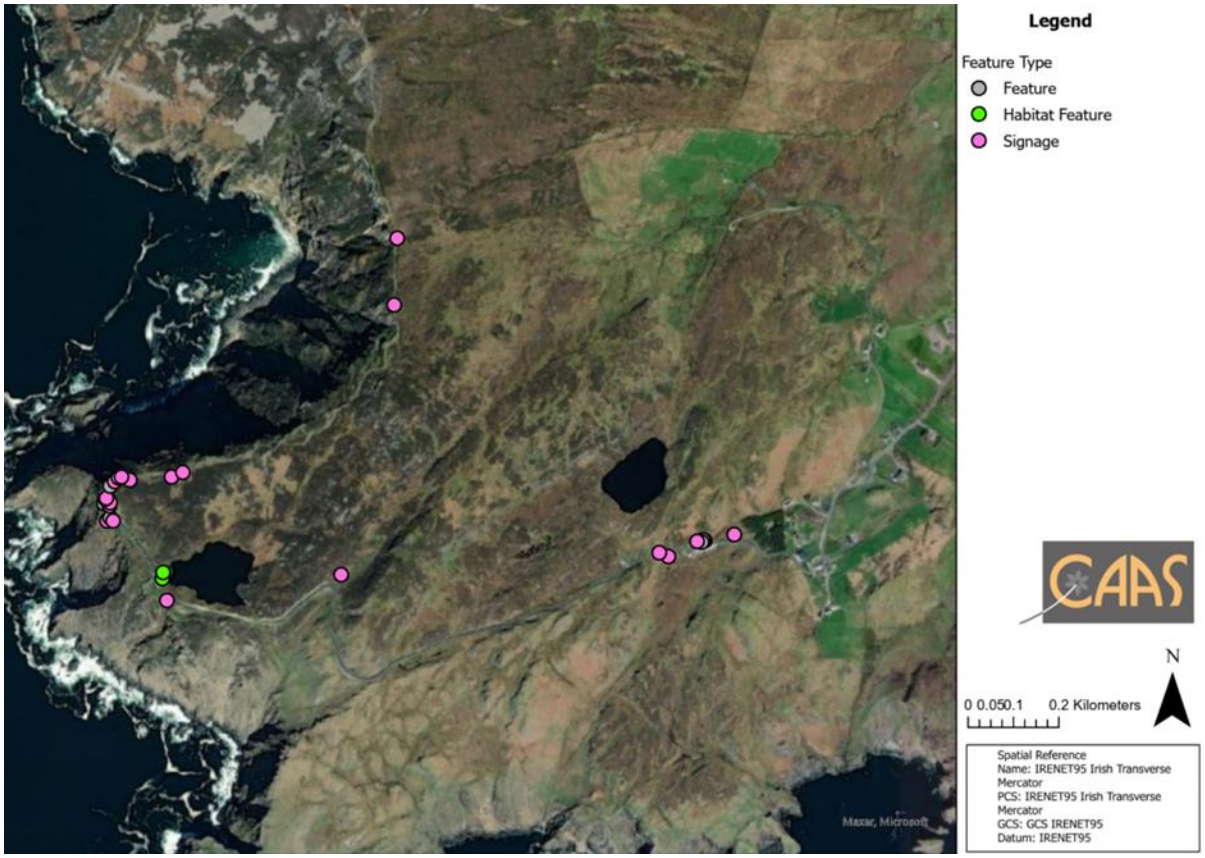


Figure 1.5 Features recorded at Sliabh Liag

Figure 1.6 Features at Sliabh Liag

1.4.3 Hazards

At Sliabh Liag it was noted that there are a number of areas where no cliff warnings are provided at potentially dangerous areas. As well as this, littering was also noted.

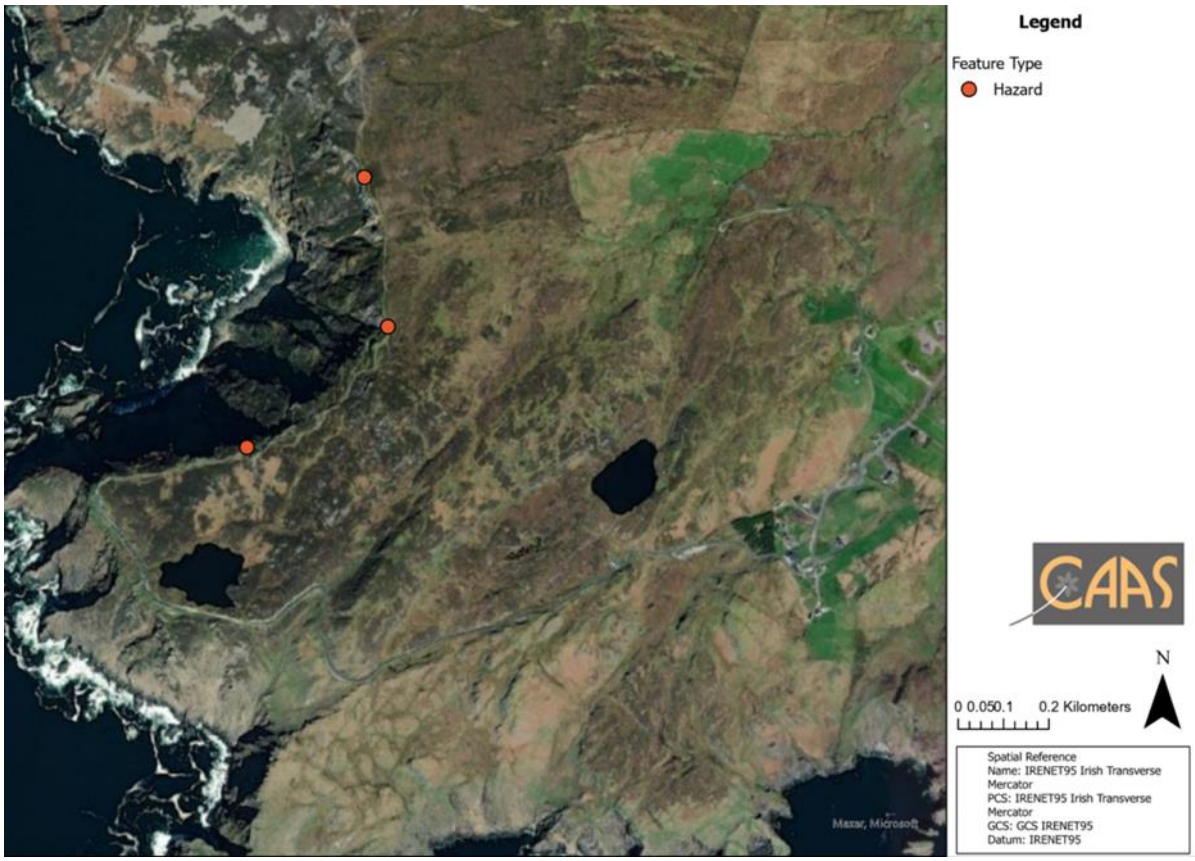


Figure 1.7 Hazards recorded at Sliabh Liag

Figure 1.8 Unprotected cliff edge at Sliabh Liag

1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 124 visitors (which represent 40 group observations), a large decrease from 460 visitors in 2021. The site is most popular amongst the couple group with the dominant mode of transport being by foot, while the preferred transport method in 2021 was by car. The average dwell time for the site was 56 minutes, a slight decrease from the average dwell time in 2021 which was 66 minutes; with the following activities undertaken during the survey (listed in order of occurrence rate):

Activity Type
Photographing
Exploring off trail
Picnicking
Sitting
Dogwalking (on lead)
Climbing
Cycling
Dogwalking (off lead)

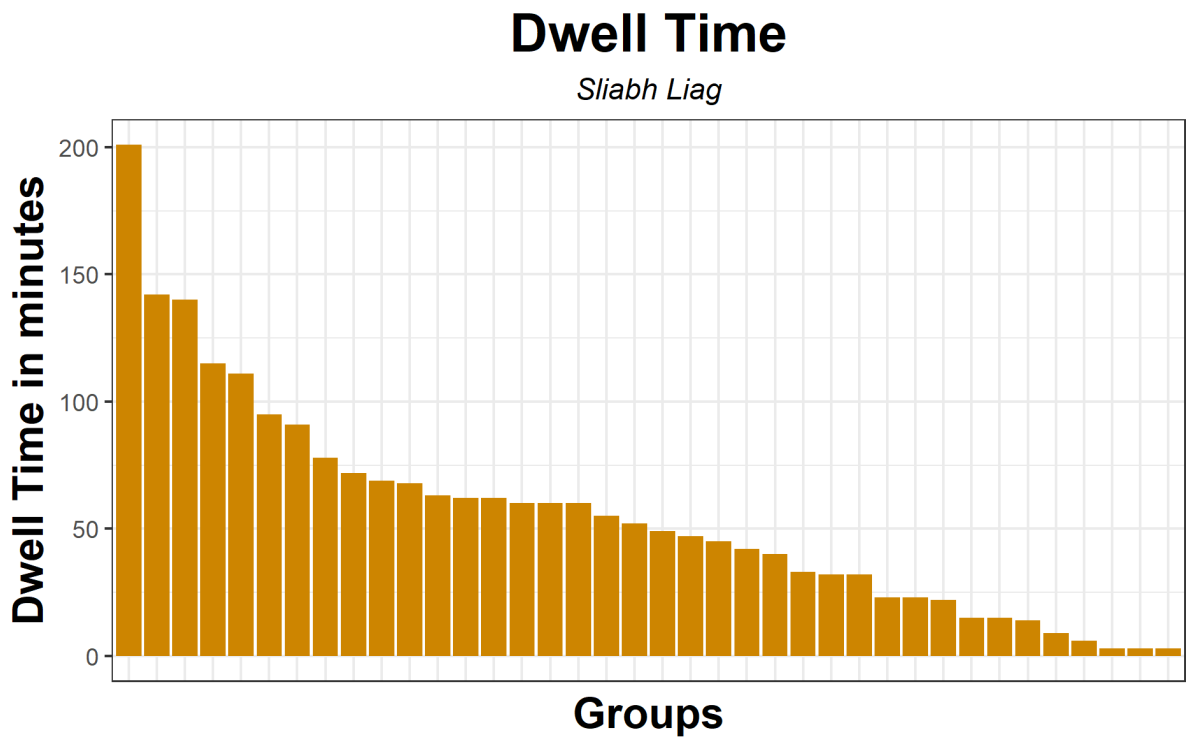


Figure 1.9 Duration of Time Spent at Sliabh Liag

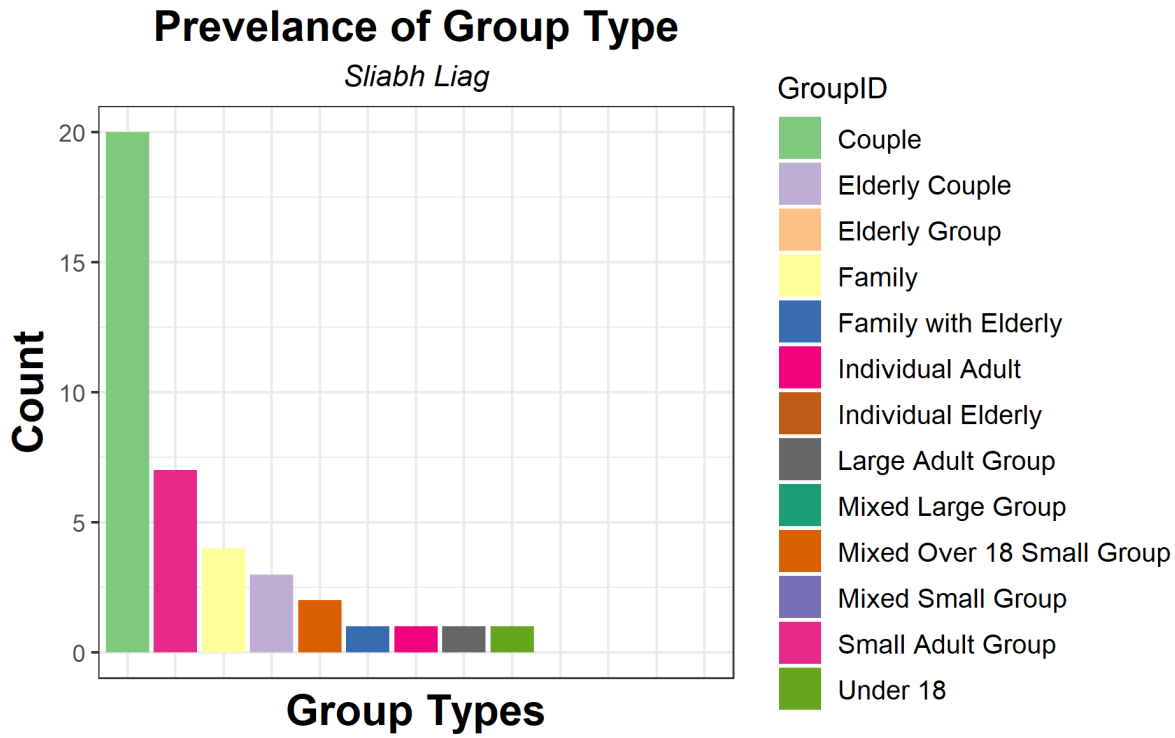


Figure 1.10 Groups of visitors that visited Sliabh Liag

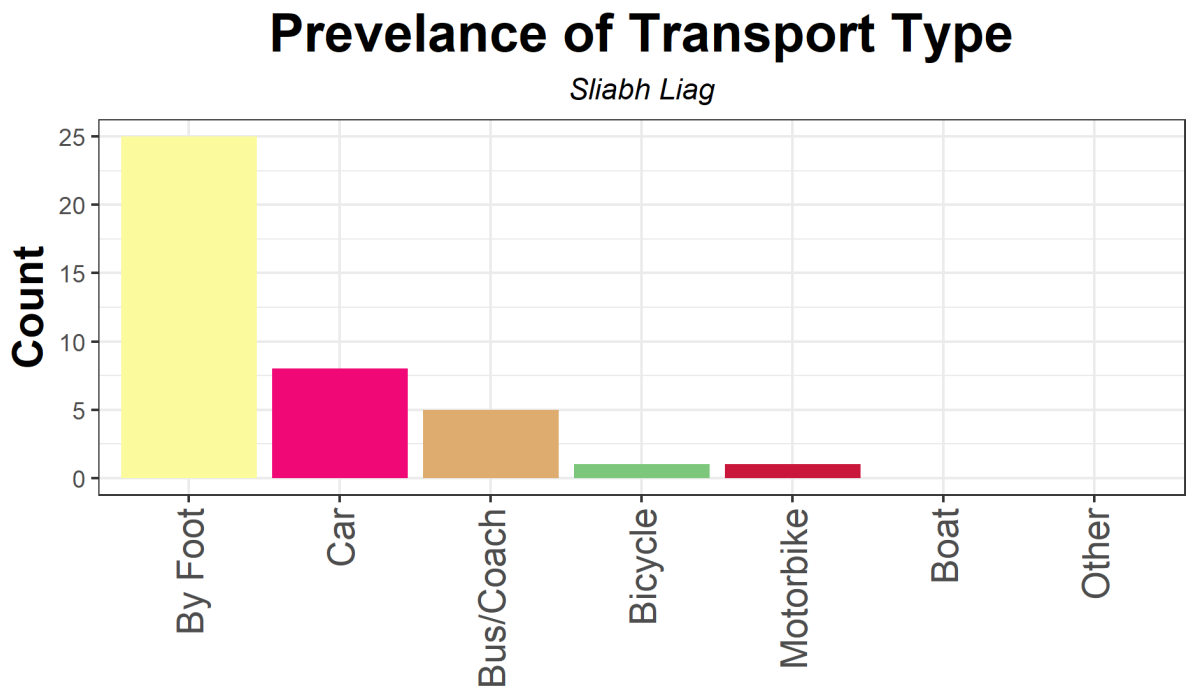


Figure 1.11 Mode of transport used to visit Sliabh Liag

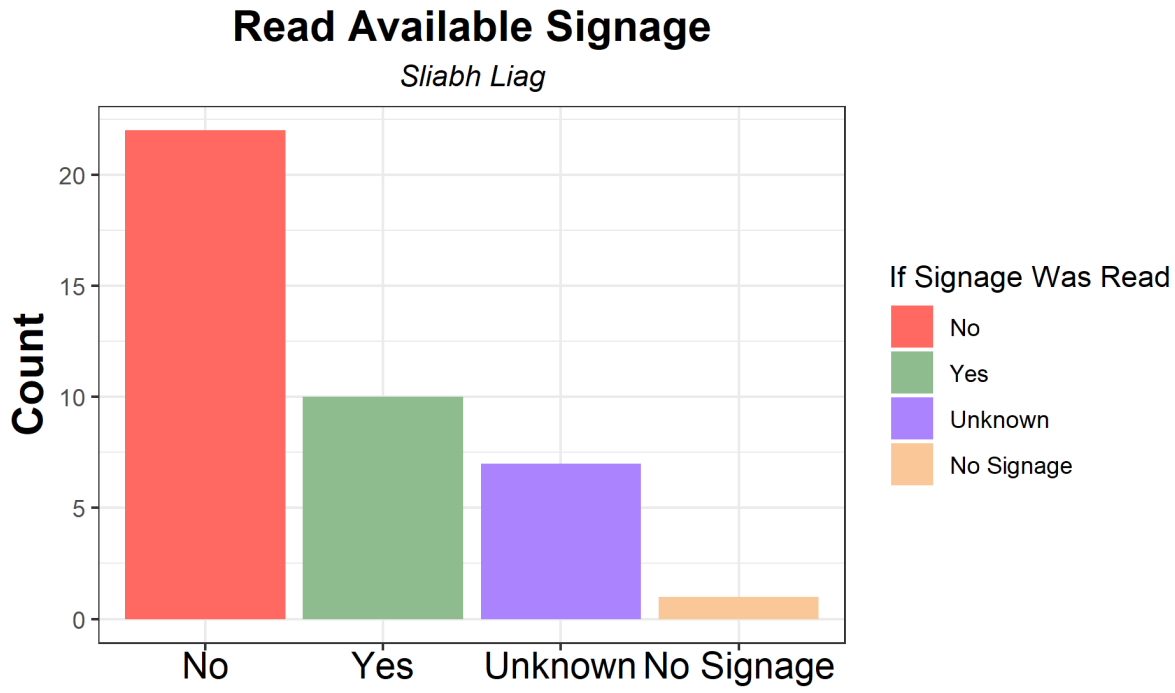


Figure 1.12 Use of Interpretive Material at Sliabh Liag

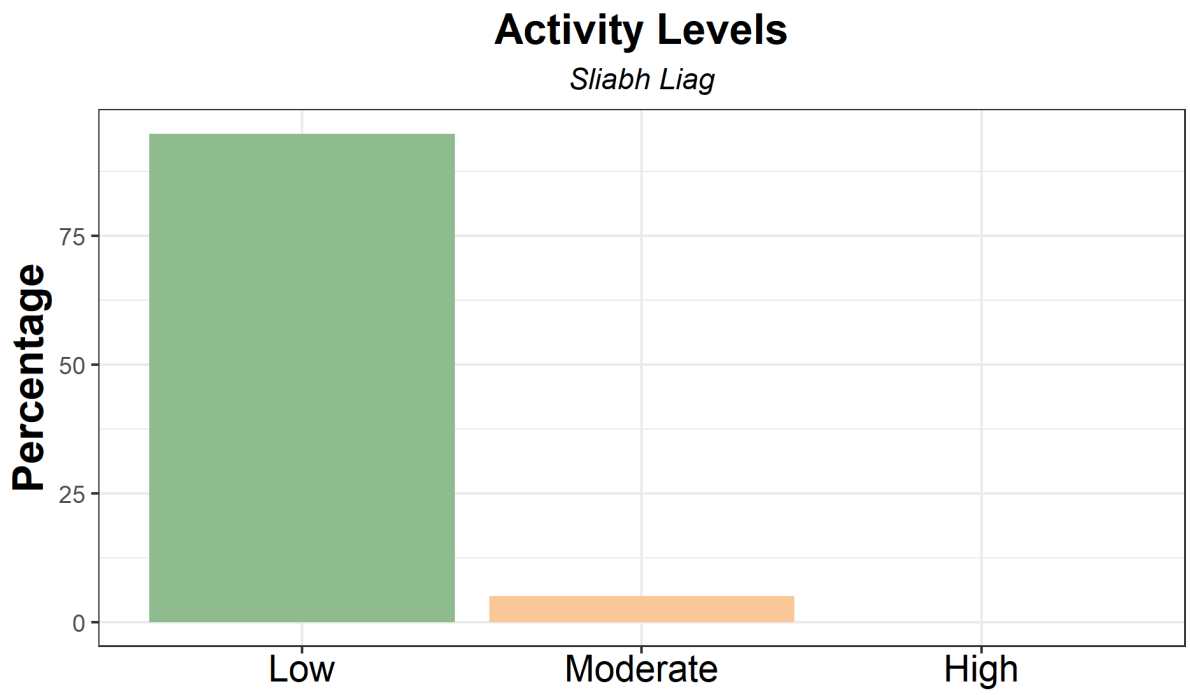


Figure 1.13 Categories of Activity Levels Observed at Sliabh Liag

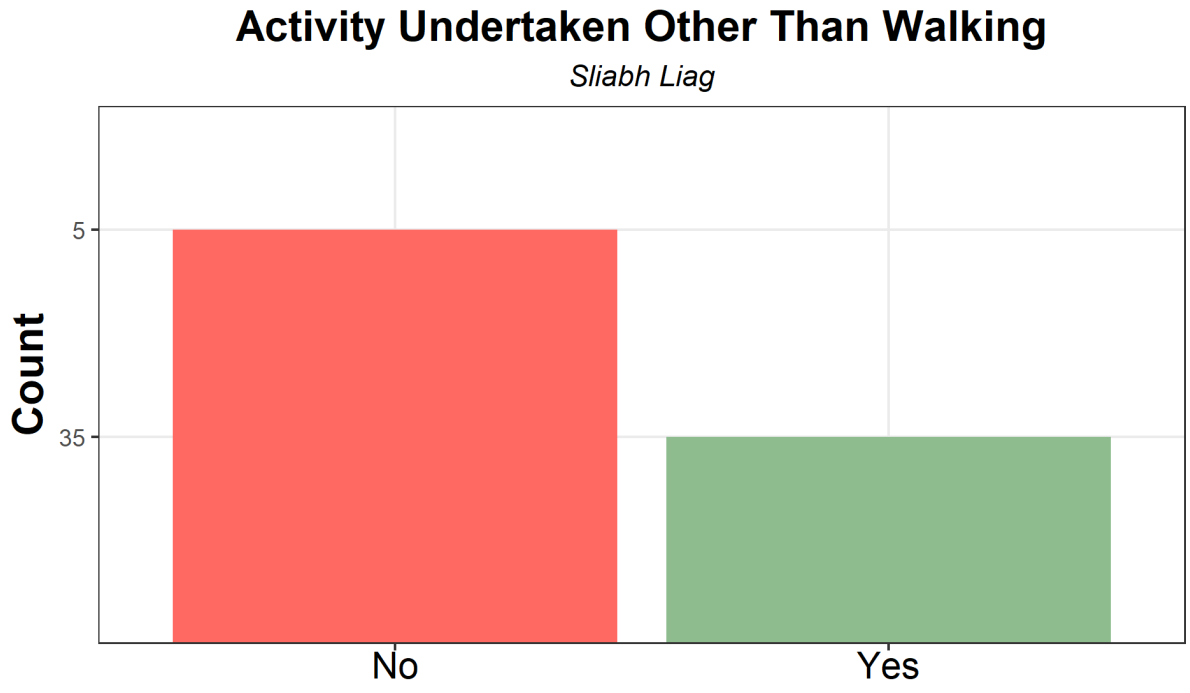


Figure 19.6 Activities undertaken other than walking

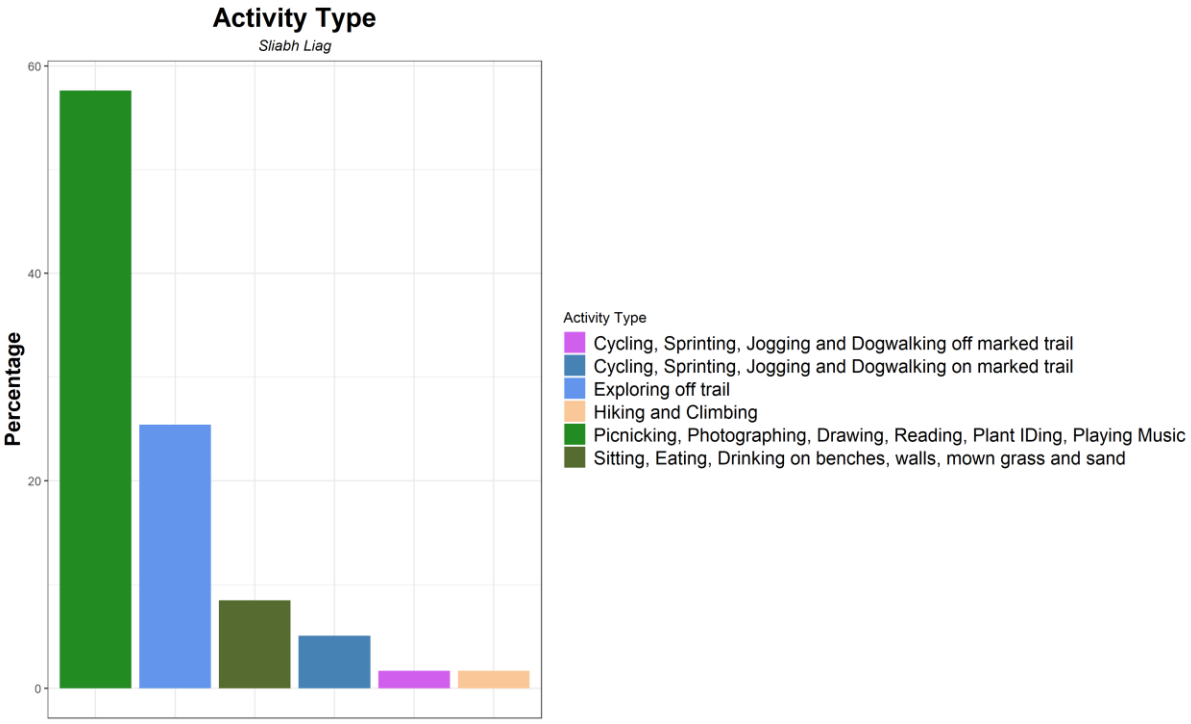


Figure 1.14 Range of Visitor Activities Observed at Sliabh Liag

Figure 1.15 Categories of Environmental Impact Levels Observed at Sliabh Liag as a result of Visitor Activities

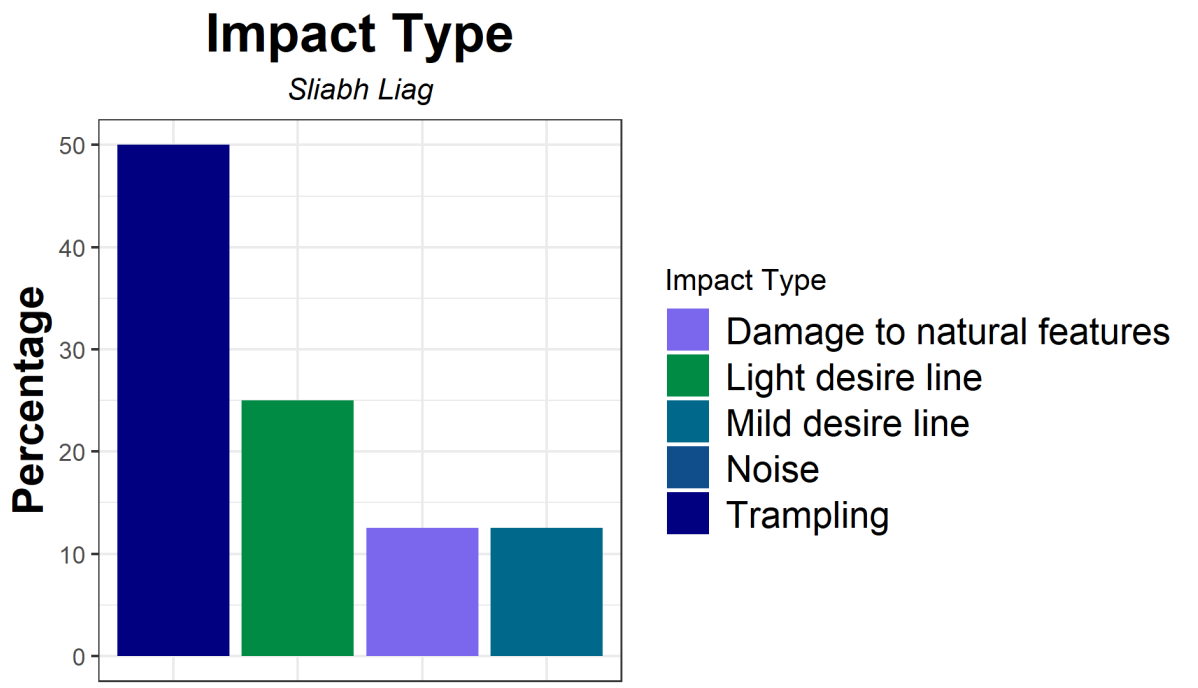


Figure 1.16 Range of Environmental Impacts Observed at Sliabh Liag

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 1.17 Visitor movement patterns at Sliabh Liag

[5] See Appendix I for more detail

Of the 40 groups recorded on site 88% of them undertook activities other than walking, a significant increase from 27% in 2021. These activities (identified above) resulted in 9 impacts being observed on site during the survey, with 5 being recorded in 2021. Thus, 14% of activities on site resulted in impacts on the environment. The impact severity levels varied with 56% of the impacts being low, with 100% being low in 2021, 46% of impacts being moderate, and 0% of impacts being high severity. The impacts identified for the site were:

Impact Type	Count
Damage to natural features	1
Light desire line	2
Mild desire line	1
Trampling	4

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 Sliabh Liag 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 despite a large reduction in the number of visitors;
- A large decrease in the percentage of visitors who did not read available signage on site;
- A decrease in percentage of visitors that undertook cycling, dog walking, jogging etc., along marked trails; and,
- Reduction of visitors during the 8-hour survey by 64% to 124 visitors over 40 groups with average dwell time increasing by 18%.

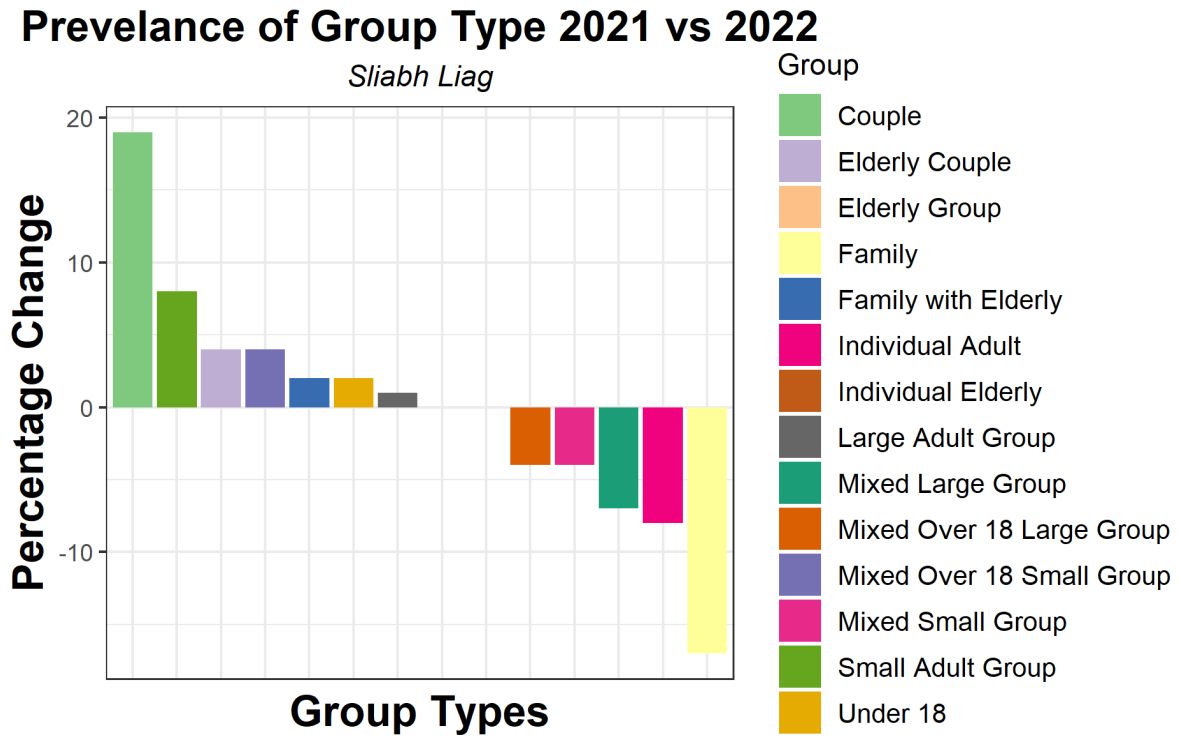


Figure 1.18 Percentage Change in groups of visitors that visited Sliabh Liag between 2021 and 2022

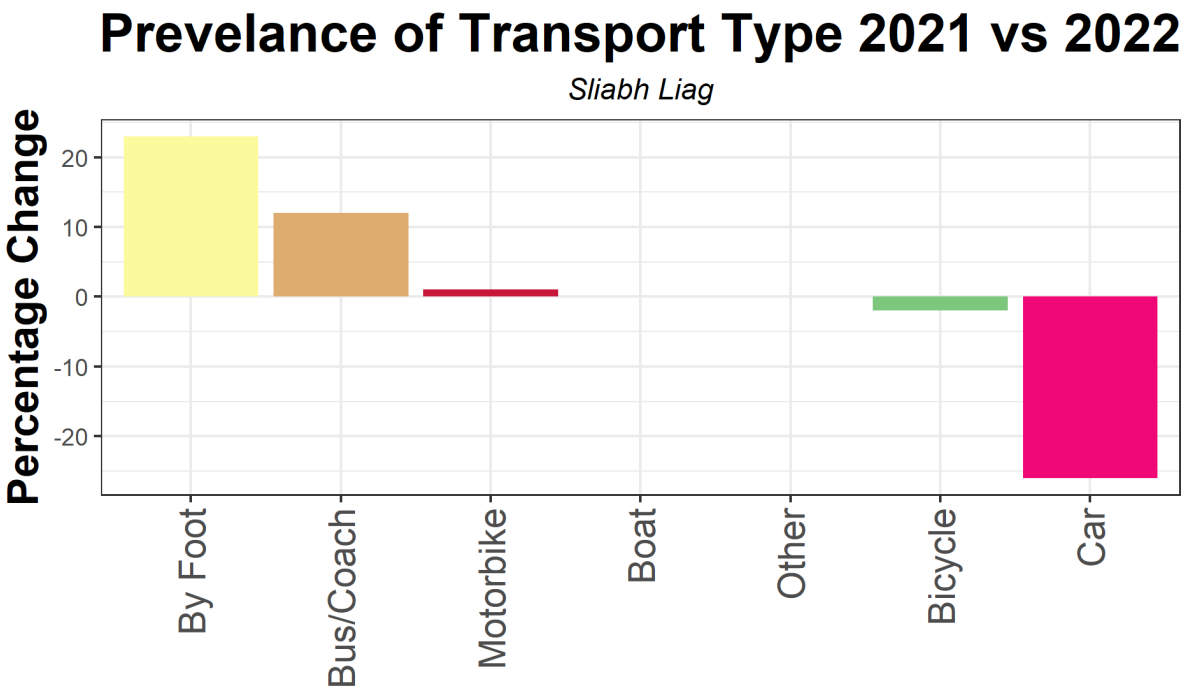


Figure 1.19 Percentage Change in mode of transport used to visit Sliabh Liag between 2021 and 2022

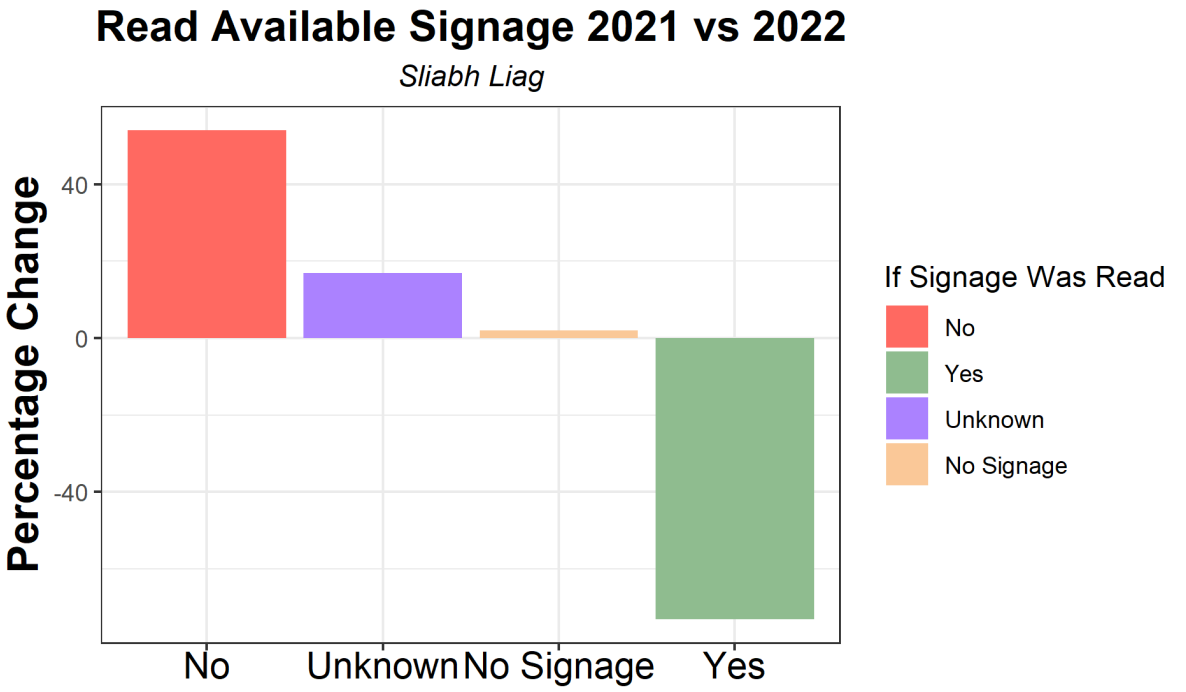


Figure 1.20 Percentage change in use of Interpretive Material at Sliabh Liag between 2021 and 2022

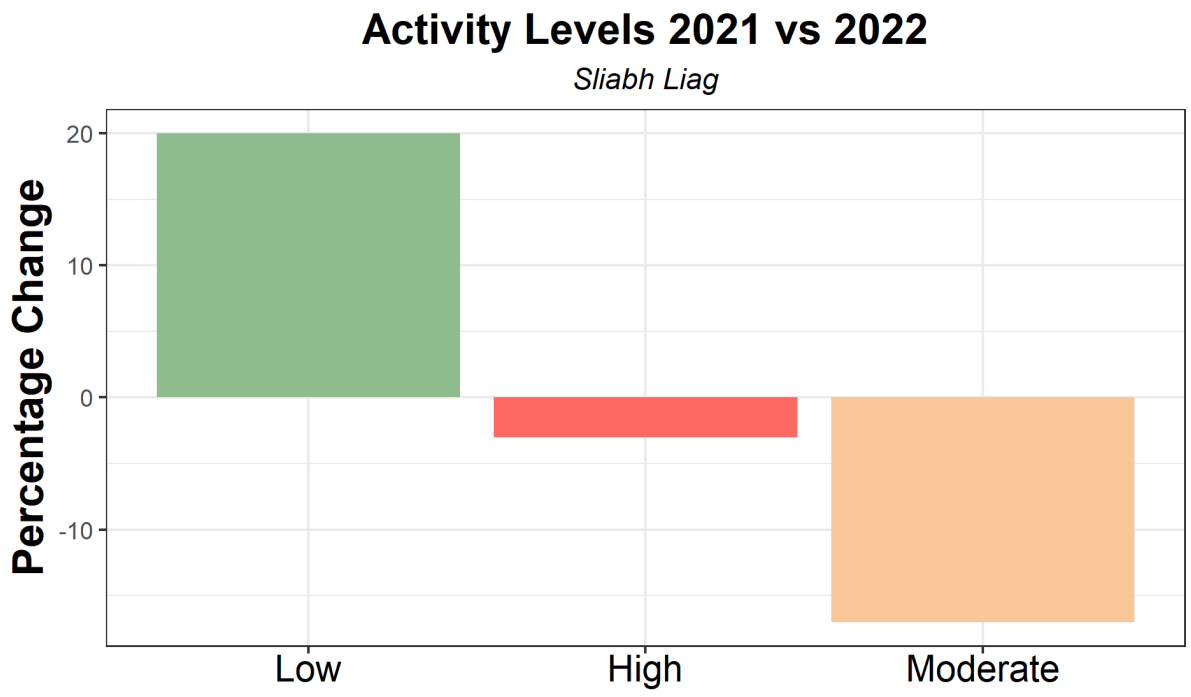


Figure 1.21 Percentage change in categories of Activity Levels Observed at Sliabh Liag between 2021 and 2022

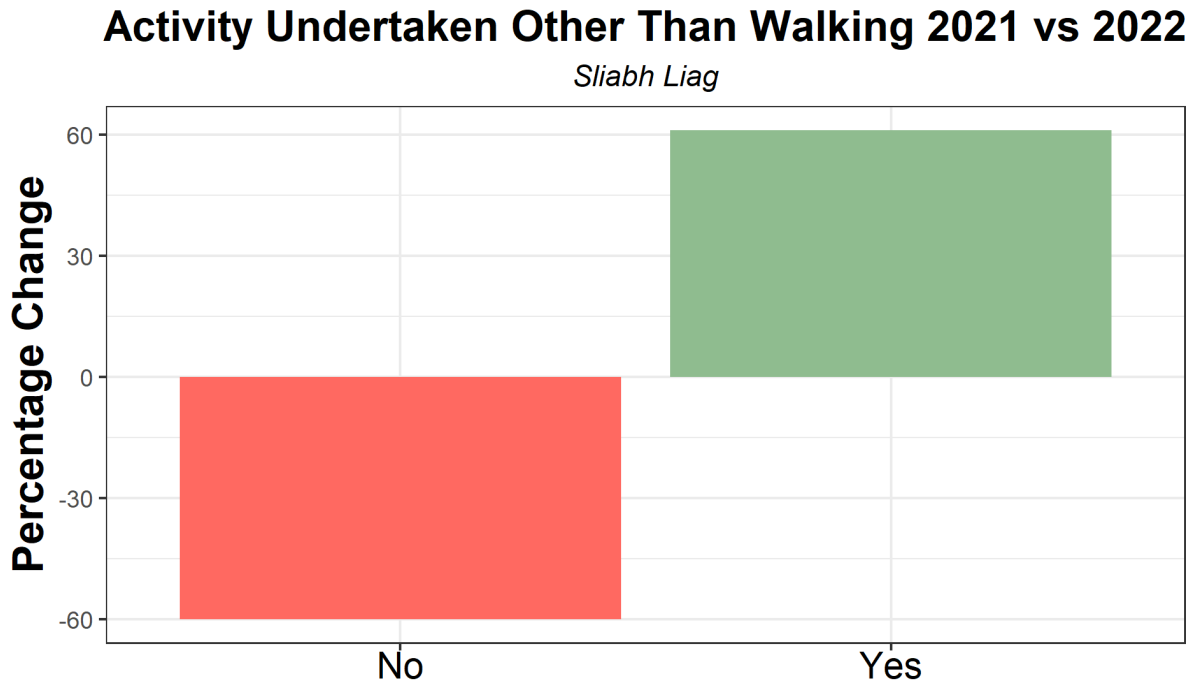


Figure 1.22 Percentage change in activities undertaken other than walking at Sliabh Liag between 2021 and 2022

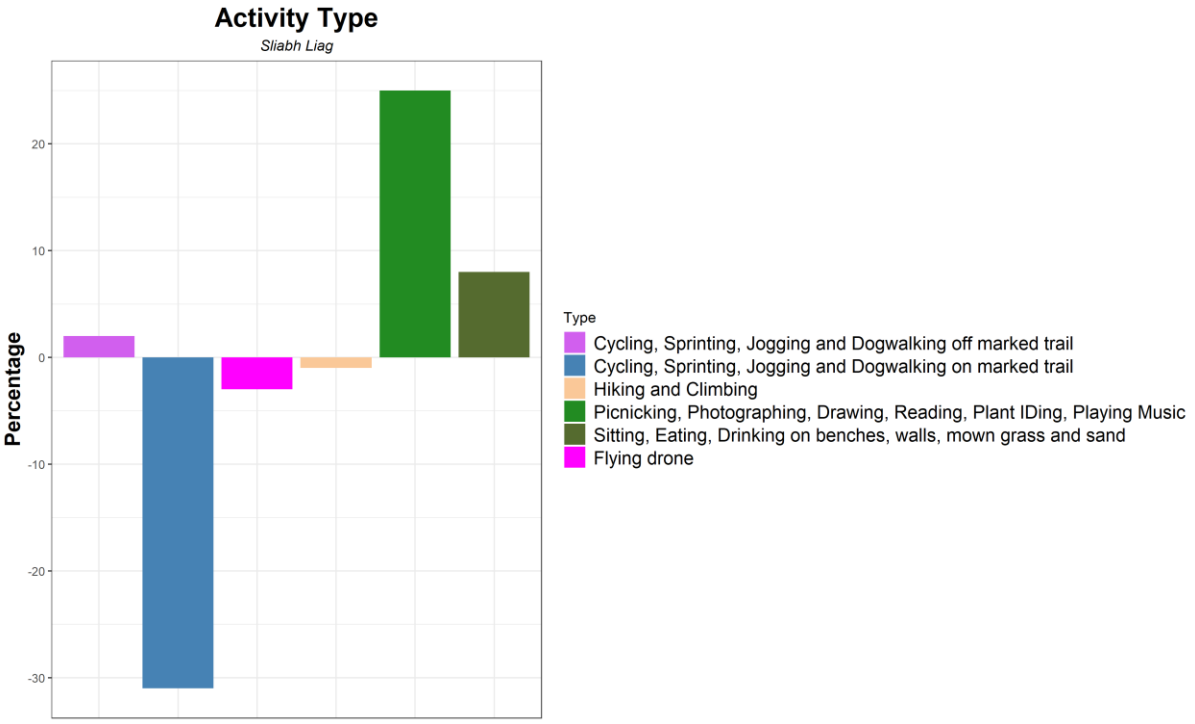


Figure 1.23 Percentage change in range of Visitor Activities Observed at Sliabh Liag between 2021 and 2022

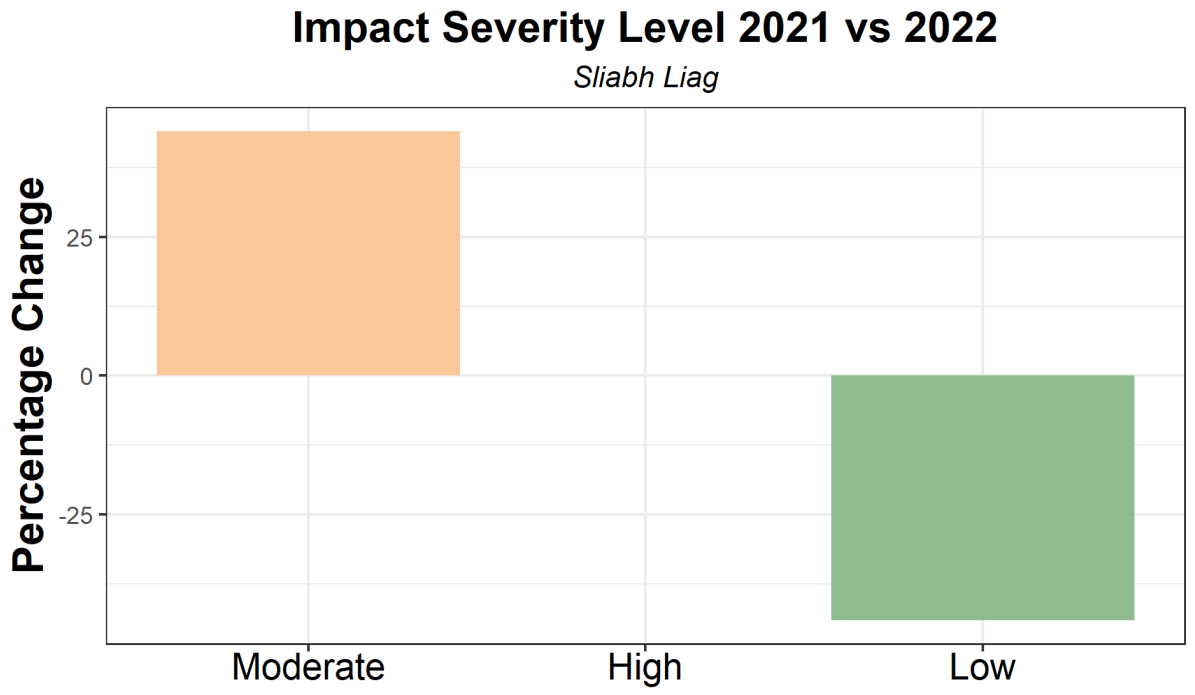


Figure 1.24 Percentage change in categories of Environmental Impact Levels Observed at Sliabh Liag as a result of Visitor Activities[6] between 2021 and 2022

[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.

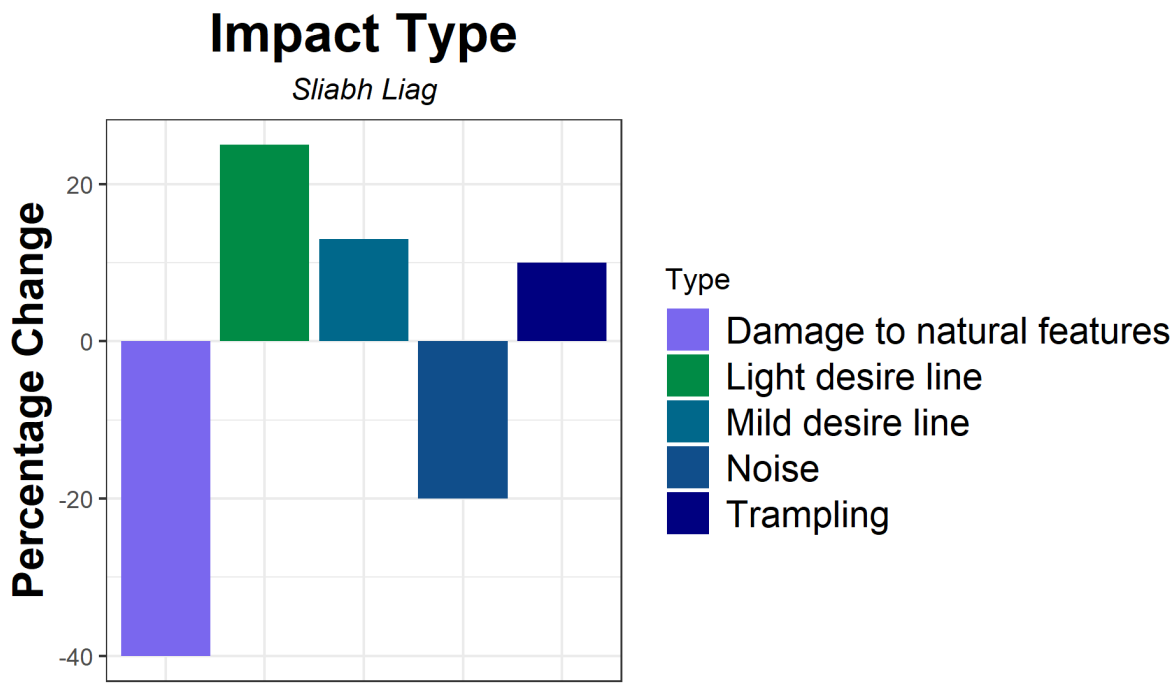


Figure 1.25 Percentage change in range of Environmental Impacts Observed at Sliabh Liag between 2021 and 2022

Table 1.4 Summary of changes with previous survey results

Survey	Notable Differences	Comment
Visitor Dwell Time	• Overall average dwell time reduced by 18%	A large reduction in the number of visitors combined with the fact that the survey was conducted earlier in the season compared to 2021 which could have led to a reduced average dwell time
Prevalence of Group Type	• 19% increase in couples • 17% decrease in families	Changes seen in percentage of group types visiting site could be due to a large decrease in the number of visitors to the site
Prevalence of Transport Type	• 23% increase by foot • 26% decrease by car • 12% increase in bus or coach	Large increase in percentage of visitors arriving by foot and thus large decrease in percentage of visitors arriving by car
Read Available Signage	• Signage not read increased by 56% • 73% decrease in signage read • Unknown increased by 17%	Severe decrease in the percentage of visitors that read available signage on site
Activity Levels	• High activity levels decreased by 3% • Low activity levels increased by 20% • Moderate activity levels decreased by 17%	Increase noted in percentage of visitors who undertook low-level activities
Activity Undertaken Other Than Walking	• Activities undertaken other than walking increased by 61%	Large increase in the percentage of visitors who undertook activities other than walking
Activity Type	• Jogging, cycling, and dog walking etc. on marked trails decreased by 31% • 25% increase in activities such as picnicking • 8% increase in activities such as sitting on benches	Decrease in percentage of visitors jogging etc., on site, along with an increase in stationary activities such as sitting and picnicking

Survey	Notable Differences	Comment
Impact Severity Level	• No change in high impact level • Low impact level decreased by 44% • Moderate impact level increased by 44%	Noted increase in percentage of moderate level impacts observed on site
Impact Type	• 10% increase in trampling • 20% decrease in noise • 13% increase in mild desire lines • 25% increase in light desire lines • 40% decrease in damage to natural features	A higher number of impacts were recorded during the 2022 survey with increases in percentage of impacts such as desire lines and trampling

1.7 Ecological Monitoring Results

1.7.1 Ecological Constraints

The sensitive habitats and species within 2km of Sliabh Liag are known to be sensitive to aquaculture, pollution, hunting, land use management, hydrological changes and overgrazing.

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

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[000189]	Slieve League pNHA	0	pNHA	
[000189]	Slieve League SAC	0	SAC	European dry heaths [4030], Blanket bogs * if active bog [7130], Alpine and Boreal heaths [4060], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous scree of the montane to snow levels *(Androsacetalia alpinae* and *Galeopsietalia ladani)* [8110], Siliceous rocky slopes with chasmophytic vegetation [8220], Reefs [1170], Northern Atlantic wet heaths with *Erica tetralix* [4010], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]
[004150]	West Donegal Coast SPA	0	SPA	Kittiwake *(Rissa tridactyla)* [A188], Fulmar *(Fulmarus glacialis)* [A009], Shag *(Phalacrocorax aristotelis)* [A018], Cormorant *(Phalacrocorax carbo)* [A017], Peregrine falcon *(Falco peregrinus)* [A103], Razorbill *(Alca torda)* [A200], Chough *(Pyrrhocorax pyrrhocorax)* [A346], Herring Gull *(Larus argentatus)* [A184]

1.7.2 Habitat Descriptions

Sliabh Liag contains a variety of habitats which represent the elevated coastal location of the site itself. The majority of the site is made up of dry siliceous heath (Fossitt Code HH1) and rocky sea cliffs (Fossitt Code CS1) with a patch of exposed siliceous rock (Fossitt Code ER1), which align with the Annex I habitat for which the SAC, Slieve League, is designated (Siliceous rocky slopes with chasmophytic vegetation [8220]). Sliabh Liag also contains a dystrophic lake (Fossitt Code FL1) and associated wetland habitats like wet heath (Fossitt Code HH3), marsh (Fossitt Code GM1) and raised bogs (Fossitt Code PB1).

The visitor movement patterns are predominantly associated with the pathways and tracks. There is evidence of erosion along the margins of the paths with break out areas evident at key vantage points – moreover, there are paths through the protected habitat evident.

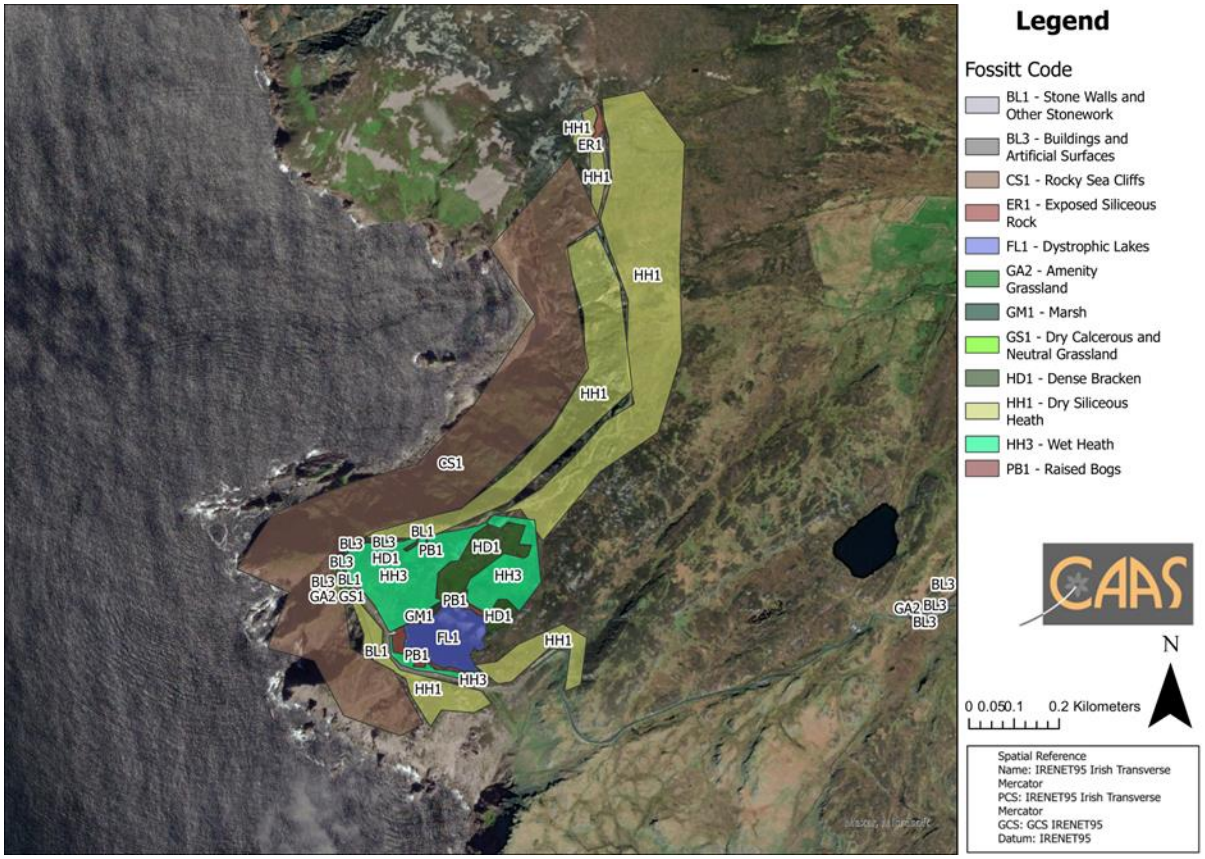


Figure 1.26 Habitats present at Sliabh Liag

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 expected of a coastal area, the NBDC data shows that the majority of mammal species observed in the area are marine mammals with bottle-nose dolphins being the most commonly seen species. A small number of terrestrial species were observed in the area with otters and hares being the most common.

Table 1.6 List of mammals that have been recorded at NBDC Hectad[7] G57

Group	Common name	Scientific name	Number recorded
Marine mammal	Bottle-nosed Dolphin	*Tursiops truncatus*	21
Marine mammal	Common Dolphin	*Delphinus delphis*	5
Marine mammal	Common Porpoise	*Phocoena phocoena*	2
Marine mammal	Common Seal	*Phoca vitulina*	1
Marine mammal	Fin Whale	*Balaenoptera physalus*	1
Marine mammal	Grey Seal	*Halichoerus grypus*	3
Marine mammal	Killer Whale	*Orcinus orca*	1
Marine mammal	Minke Whale	*Balaenoptera acutorostrata*	3
Marine mammal	Phocidae	*Phocidae*	1
Terrestrial mammal	American Mink	*Mustela vison*	1
Terrestrial mammal	European Otter	*Lutra lutra*	7
Terrestrial mammal	European Rabbit	*Oryctolagus cuniculus*	1
Terrestrial mammal	Irish Hare	*Lepus timidus subsp. hibernicus*	4
Terrestrial mammal	Irish Stoat	*Mustela erminea subsp. hibernica*	1
Terrestrial mammal	Lesser Noctule	*Nyctalus leisleri*	1
Terrestrial mammal	Red Deer	*Cervus elaphus*	1

1.7.5 NBDC Records of Wintering Birds

Table 1.7 List of wintering birds that have been recorded at NBDC Hectad[8] G57

Group	Common name	Scientific name	Number recorded
Bird	Black Guillemot	*Cepphus grylle*	11
Bird	Black-headed Gull	*Larus ridibundus*	4
Bird	Black-legged Kittiwake	*Rissa tridactyla*	12
Bird	Common Eider	*Somateria mollissima*	2
Bird	Common Greenshank	*Tringa nebularia*	2
Bird	Common Guillemot	*Uria aalge*	7
Bird	Common Redshank	*Tringa totanus*	2
Bird	Common Sandpiper	*Actitis hypoleucos*	4
Bird	Common Snipe	*Gallinago gallinago*	3
Bird	Eurasian Curlew	*Numenius arquata*	5
Bird	Eurasian Oystercatcher	*Haematopus ostralegus*	7
Bird	Eurasian Teal	*Anas crecca*	1
Bird	Eurasian Woodcock	*Scolopax rusticola*	1
Bird	European Shag	*Phalacrocorax aristotelis*	5
Bird	European Storm-petrel	*Hydrobates pelagicus*	2
Bird	Glaucous Gull	*Larus hyperboreus*	1
Bird	Great Black-backed Gull	*Larus marinus*	20
Bird	Great Cormorant	*Phalacrocorax carbo*	9
Bird	Great Crested Grebe	*Podiceps cristatus*	1
Bird	Great Northern Diver	*Gavia immer*	2
Bird	Great Skua	*Stercorarius skua*	1
Bird	Grey Heron	*Ardea cinerea*	5
Bird	Herring Gull	*Larus argentatus*	15
Bird	Ivory Gull	*Pagophila eburnea*	1
Bird	Kumlien's Iceland Gull	*Larus glaucoides subsp. kumlieni*	1
Bird	Lesser Black-backed Gull	*Larus fuscus*	8
Bird	Mallard	*Anas platyrhynchos*	10
Bird	Manx Shearwater	*Puffinus puffinus*	21
Bird	Mew Gull	*Larus canus*	3
Bird	Mute Swan	*Cygnus olor*	1
Bird	Northern Fulmar	*Fulmarus glacialis*	28
Bird	Northern Gannet	*Morus bassanus*	39
Bird	Northern Lapwing	*Vanellus vanellus*	1

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

Group	Common name	Scientific name	Number recorded
Bird	Razorbill	*Alca torda*	3
Bird	Red-breasted Merganser	*Mergus serrator*	4
Bird	Ringed Plover	*Charadrius hiaticula*	1
Bird	White-throated Dipper	*Cinclus cinclus*	4

1.8 Recommendations

- Sliabh Liag has an existing and successful path management and protection systems in place. Where off trail paths or breakout points from existing trails are formed, the existing system should be extended to prevent any damage from occurring.
- The site attracts a large number of visitors, and as was recommended in 2021, seasonal communication projects should be set up to take advantage of the nature and habitats surrounding Sliabh Liag. These seasonal communication projects could include walking tours and bio-blitzes.

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.