NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

ANNUAL RESULTS FOR 2022

STREEDAGH BEACH

for: **Fáilte Ireland**

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Document Control

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Status of this version	Draft	

Contents

Streedagh Beach – Interesting Finds

ECOLOGICAL HIGHLIGHTS

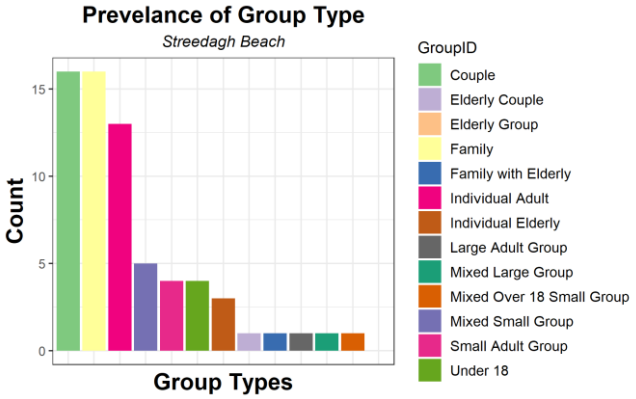
All of the designated features of the Streedagh Point SAC are present on site. Namely, Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Narrow-mouthed whorl snail (*Vertigo angustior*) [1014], Perennial vegetation of stony banks [1220], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Mediterranean salt meadows (Juncetalia maritimi) [1410]

The protection of these habitats is paramount.

Great northern diver (*Gavia immer*), Golden plover (*Pluvialis apricaria*), Bar-tailed godwit (*Limosa lapponica*) and Curlew (*Numenius arquata*) are known to winter at this beach.

VISITOR NUMBERS AND DWELL TIME

- 171 people visited the site over 8 hours
- Average dwell time of 53 minutes



KEY RECOMMENDATIONS

- As with the recommendations set forth in the 2021 report, the density trails on site at Streedagh Beach are very high and localised. In saying this though the habitats off trail are relatively undisturbed. However, it should be noted that efforts should be made in order to consolidate the trails on site.
- Existing parking management system is ineffective, with movable barriers. An examination should take place of how to improve the existing management system for parking.
- Engaging interpretive material is required to increase visitor awareness of the importance of the habitats at Streedagh Beach and their sensitivities.

VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site well controlled with strong management practices in place.
- 98% of activities recorded by visitors were deemed to be of low level such as swimming and dog walking, an increase of 23% from 2021.
- Impacts observed on site include desire lines and erosion.
- Most of the visitors to the site stayed for at least 53 minutes –given the nature of the site itself as a beach.
- Slight increase in visitors reading signage on site, which was 0% in 2021 survey

Highlights:

- Dune management system is needed
- Camping control measures are needed.
- Increase of average dwell time by 9 minutes.
- Increase in signage read. However, site signage is limited.

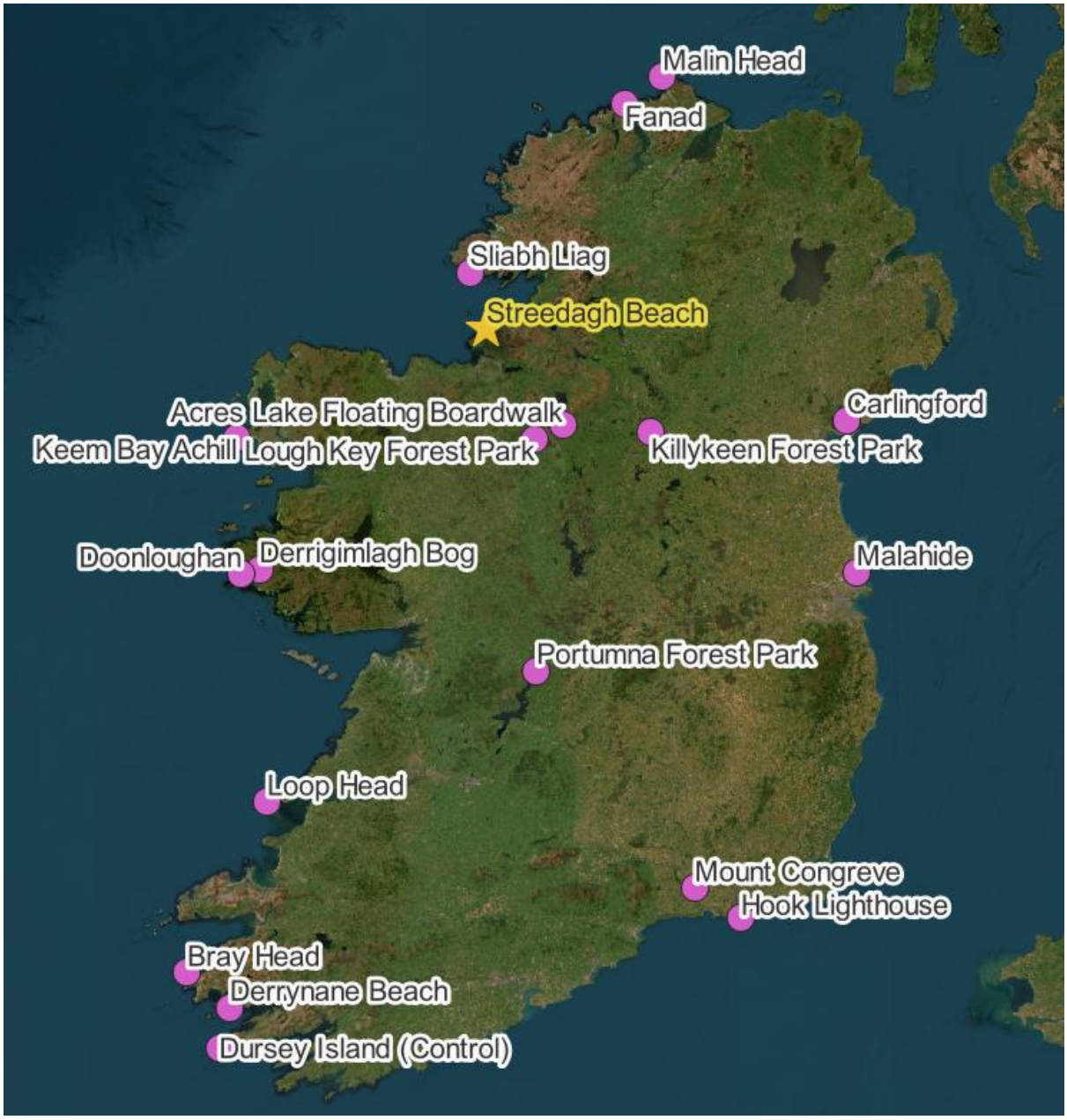


1 Streedagh Beach

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.

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 recommendations to be identified and shared with the relevant stakeholders, in order to support progressive and informed management practices

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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 Streedagh Beach:

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 Streedagh Beach was undertaken on the 22nd of July 2022, with max temperatures reaching approximately 22° C, with 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 Streedagh Beach

Streedagh Beach in northern County Sligo, is around 3km long. It contains a wide range of important habitats such as a calcareous spring, marram dunes, fixed dunes and lower salt marshes and as such, is within the Streedagh Point Dunes SAC. It also has important historical association with the Spanish Armada as well as two nearby megalithic tombs. The remains of a 14th Century Spanish Armada ship still mostly buried at the far end of the strand is visible at very low tide.

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

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

Figure 1.1 Streedagh Beach

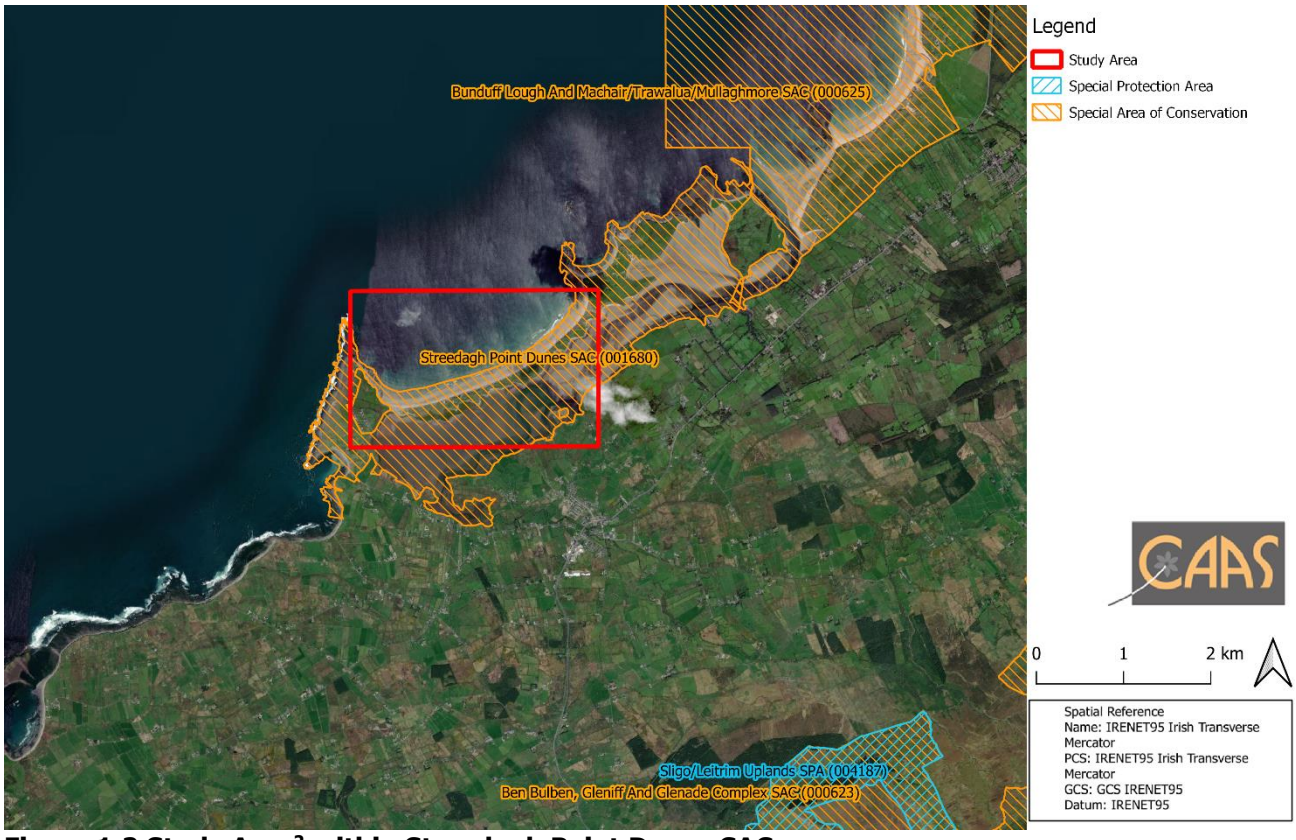

Figure 1.2 Study Area[2] within Streedagh Point Dunes SAC

[2] Approximate study area

1.3.1 Critical Infrastructure

Table 1.1 Summary of Wastewater infrastructure at Streedagh Beach

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
Toilet facilities are available on site. No current WWTP on site at Streedagh Beach. Nearest settlement with WWTP in Grange (WWTP Reg #D0381)	Potential spare capacity to be available[3]	Current wastewater facilities are sufficient

Table 1.2 Summary of Drinking Water infrastructure at Streedagh Beach

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
Nearest serviced settlement to Streedagh Beach is Grange	North Sligo Regional Water Supply	Capacity available – Level of service (LoS) improvement required[4]	Current water supply is sufficient

Table 1.3 Summary of Transport infrastructure at Streedagh Beach

Nearest Settlement	Current Transport Infrastructure	Comment
Grange	Streedagh Beach is accessible from Grange via the L3203	There is an unmarked car park on site, the introduction of a designated car park on site would help alleviate pressures on the site caused by the unmarked car park

1.4 Pathways and Features Condition Results

1.4.1 Pathway Condition

Most of the main paths at Streedagh Beach are confined to an area within 250m of the paved road access point and the loosely organised – but unedged parking area that intrudes at busy times onto muddy sand and saltmarsh areas. There is occasional and slight evidence of paths or trails for remaining 2km of the beach length.

There are various degrees of pathways formation which show various levels of compaction and damage caused by walkers and vehicles in this restricted area.

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

Figure 1.3 Pathways identified at Streedagh Beach

Figure 1.4 Pathways at Streedagh Beach

1.4.2 Features Condition

Streedagh Beach contains features that would be expected of a coastal visitor area such as a lifeguard hut along with toilets and carpark surfaced with unbound material. The beach also has signage related to beach safety and warnings of strong currents. Along with these, it also has information signage such as historical information and a general information board as well as signage that designates the area as a Special Area of Conservation, with barriers that prevent cars from entering dunes, and as part of the Wild Atlantic Way (Figure 1.6).

Figure 1.5 Features recorded at Streedagh Beach

Figure 1.6 Features at Streedagh Beach

1.4.3 Hazards

No hazards were noted or recorded at Streedagh Beach during hazard mapping.

1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 171 visitors, up from 156 in 2021, (which represent 66 group observations, up from 65). The site is most popular amongst the couple and family group with the dominant mode of transport being car. The average dwell time for the site was 53 minutes, up from 44 minutes in 2021; with the following activities undertaken during the survey (listed in order of occurrence rate):

Activity Type
Swimming
Sitting
Photographing

Activity Type
Picnicking
Dogwalking (on lead)
Building sand castles
Dogwalking (off lead)
Exploring off trail
Other
Jogging
Surfing
Digging
Swimming, Sailing, Surfing, Kayaking, Bodyboarding and other aquatic sports
Drinking
Dune Surfing
Football, Frisbee/Catch, Tennis and other informal sports matches
Horse-riding
Reading
SUP Boarding

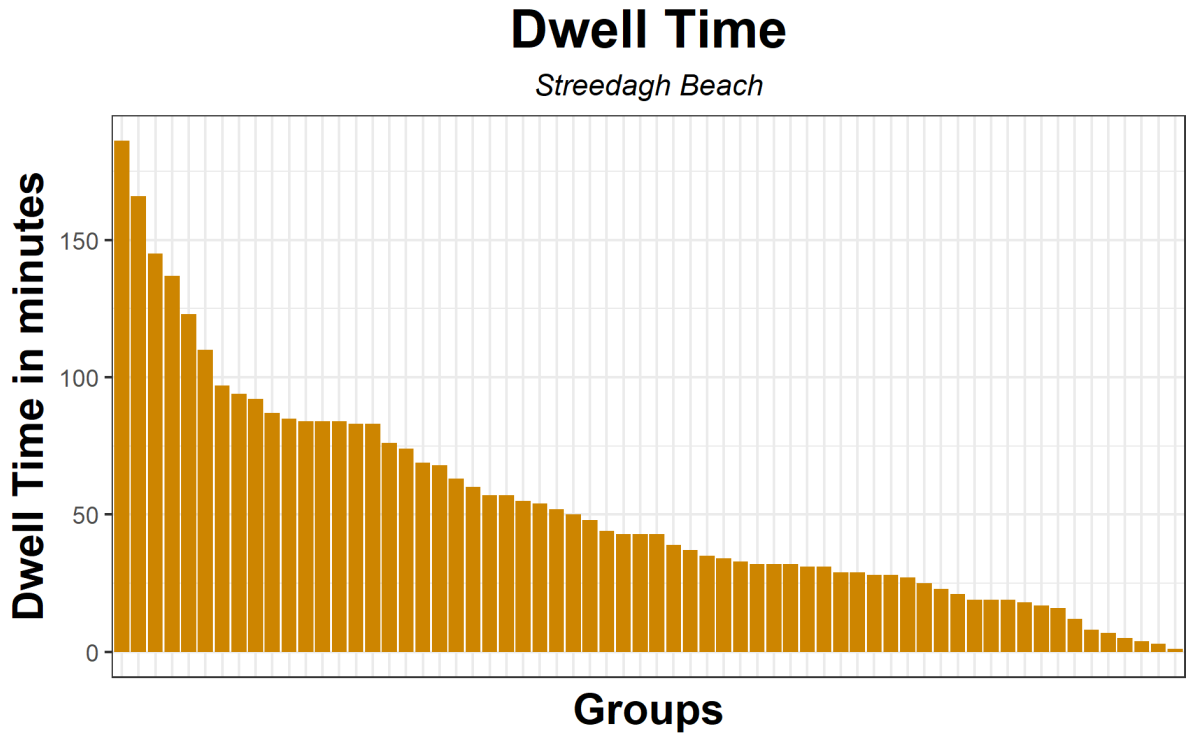

Figure 1.7 Duration of Time Spent at Streedagh Beach

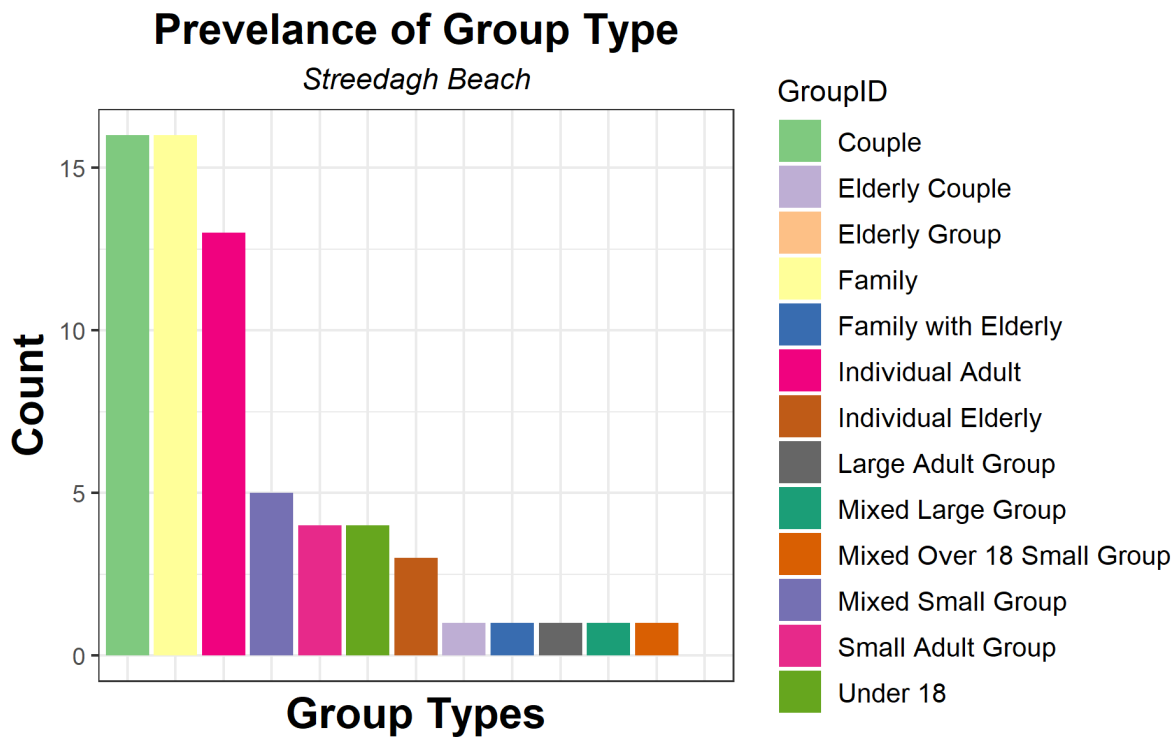

Figure 1.8 Groups of visitors that visited Streedagh Beach

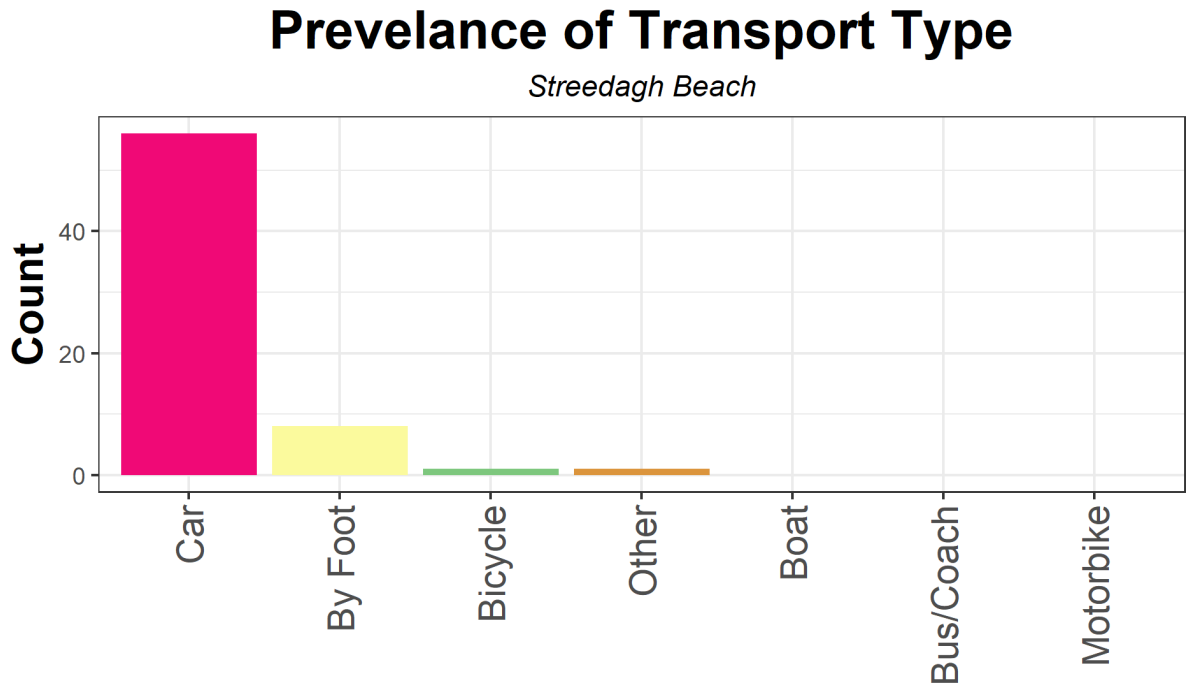

Figure 1.9 Mode of transport used to visit Streedagh Beach

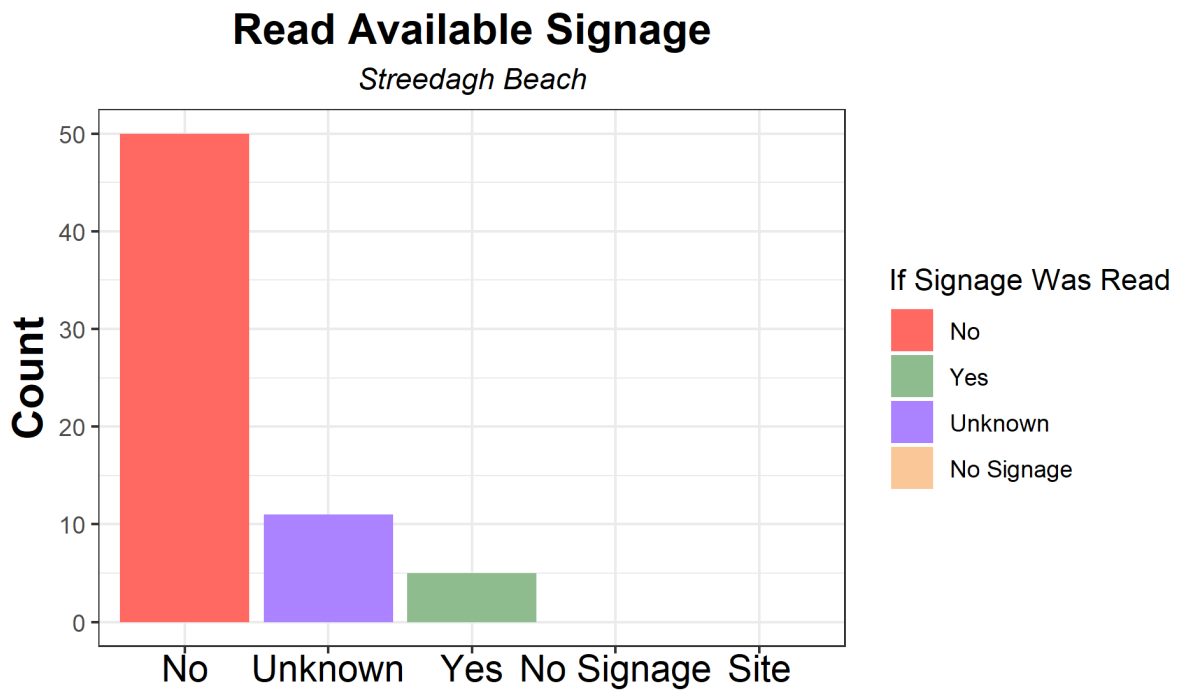

Figure 1.10 Use of Interpretive Material at Streedagh Beach

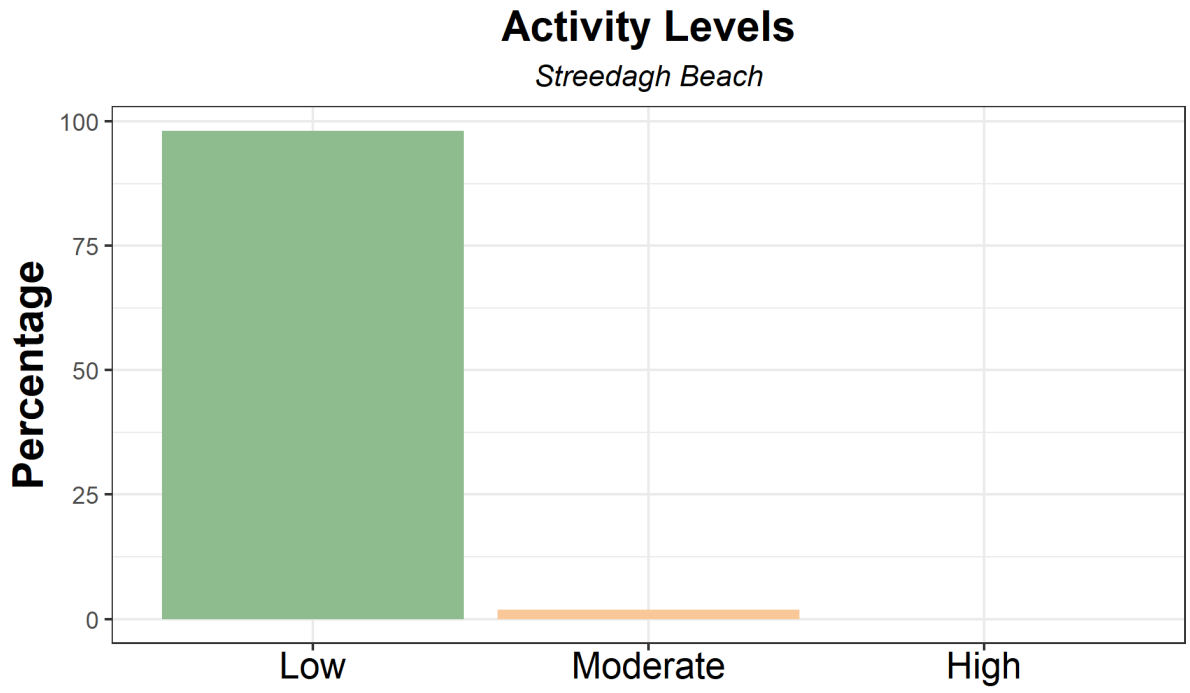

Figure 1.11 Categories of Activity Levels Observed at Streedagh Beach

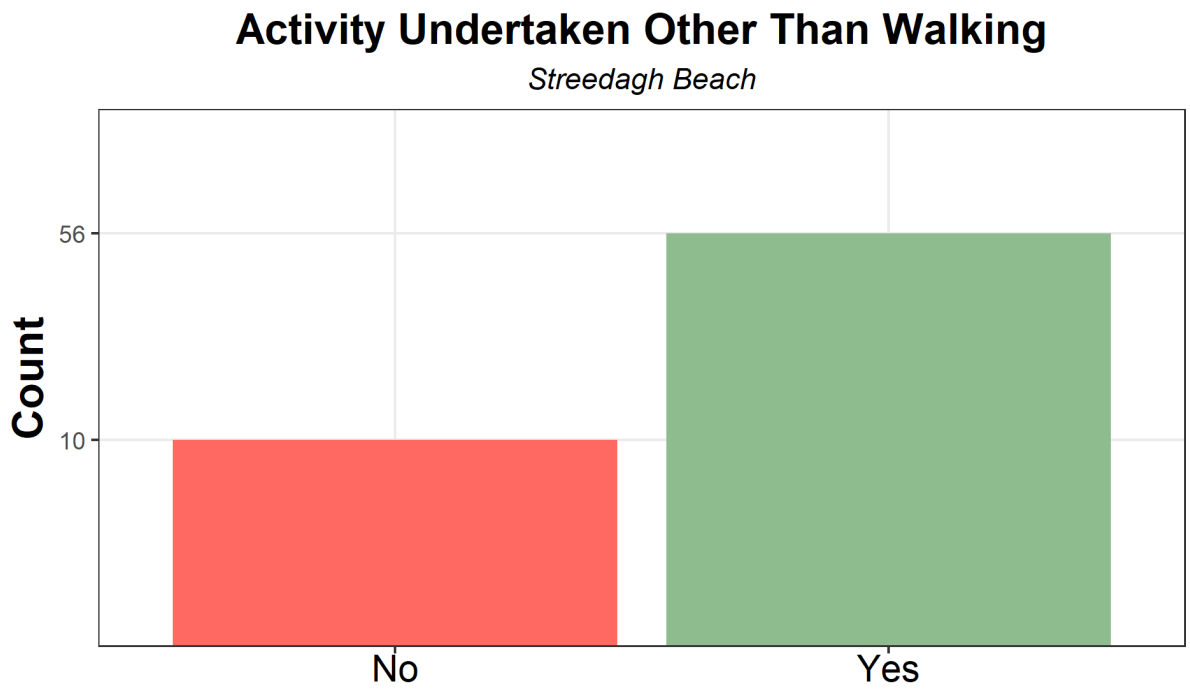

Figure 1.12 Activities undertaken other than walking

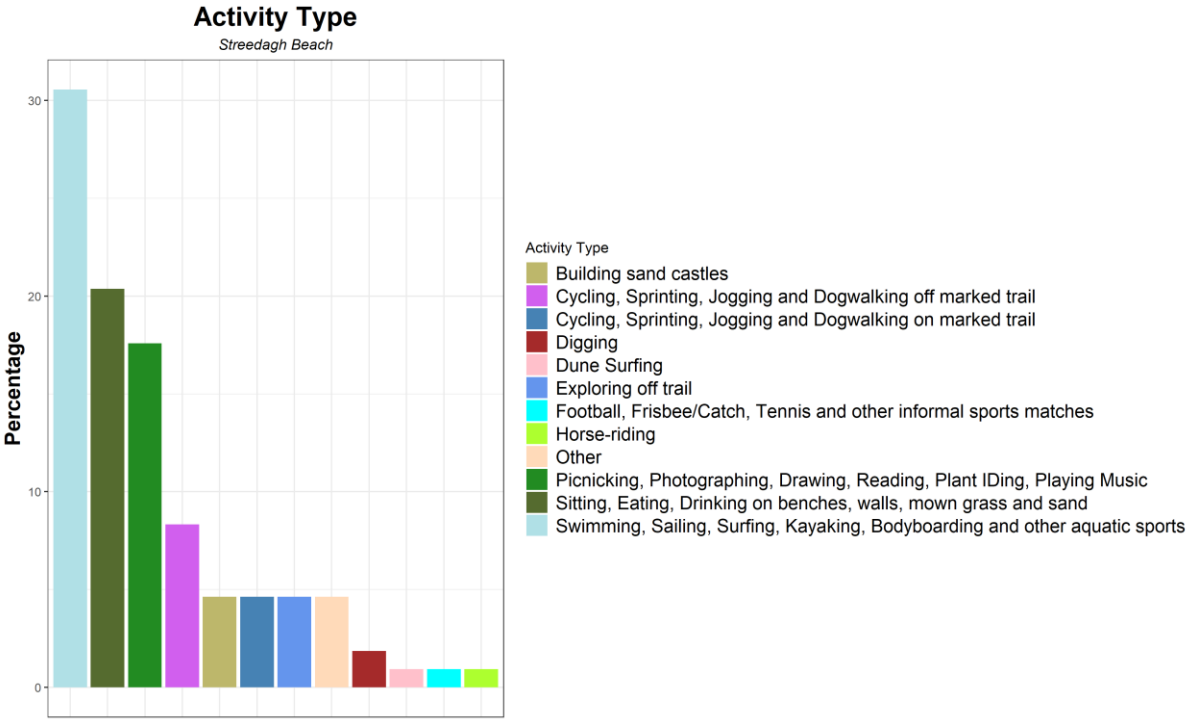

Figure 1.13 Range of Visitor Activities Observed at Streedagh Beach

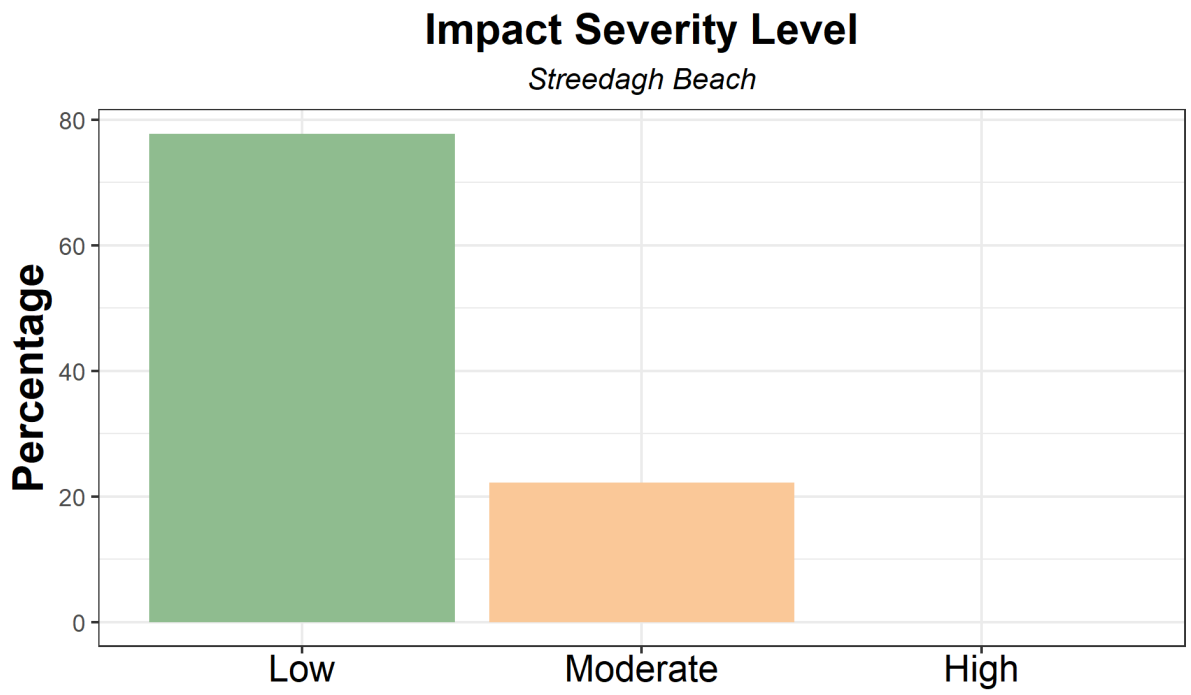

Figure 1.14 Categories of Environmental Impact Levels Observed at Streedagh Beach as a result of Visitor Activities

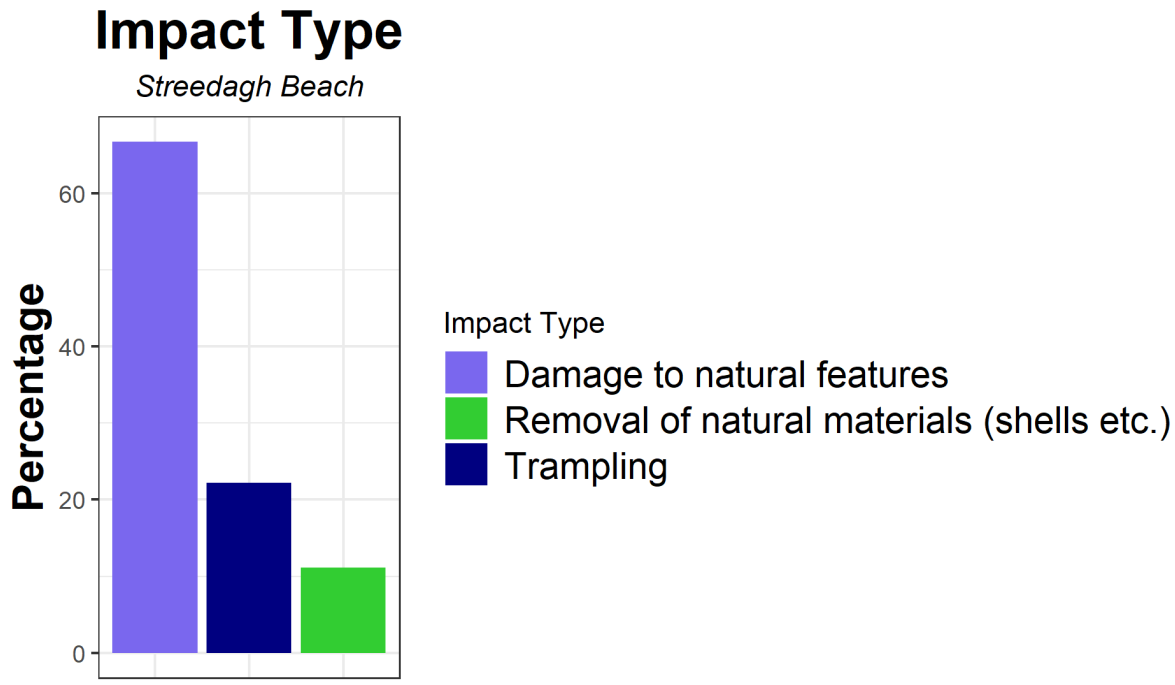

Figure 1.15 Range of Environmental Impacts Observed at Streedagh Beach

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.

[5] See Appendix I for more detail

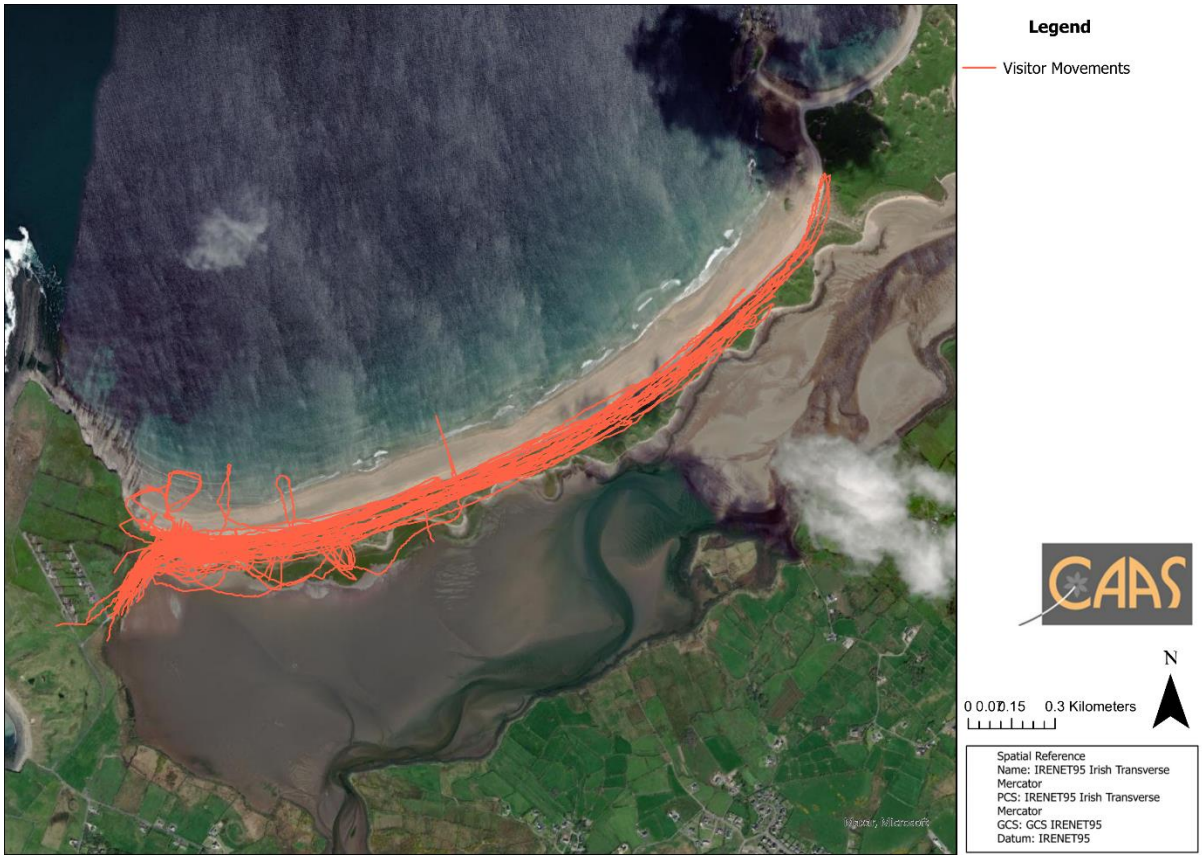

Figure 1.16 Visitor movement patterns at Streedagh Beach

Of the 66 groups recorded on site 85% of them undertook activities other than walking. These activities resulted in 9 impacts, up from 7 in 2021, being observed on site during the survey. Thus, 8% of activities on site resulted in impacts on the environment, down from 13%. The impact severity levels varied with 78%, up from 43%, of the impacts being low, 22%, down from 57%, 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	6
Removal of natural materials (shells etc.)	1
Trampling	2

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 Bray Head produced a number of changes from the 2021 Visitor Characterisation Survey. Noted changes include;

- An increase in the number of low-level activities, to 98%, along with a slight increase of visitors who chose to walk to the site;
- Slight increase in the number of visitors who read signage on site, to 8% from 0% in 2021.
- A moderate decrease was noted in the number of activities (cycling, jogging etc.) on marked trails on site while there was a moderate increase in activities such as sitting on site; and,
- An increase of visitors during the 8-hour survey by over 9% to 152 visitors over 66 groups with dwell time increasing by over 30%.

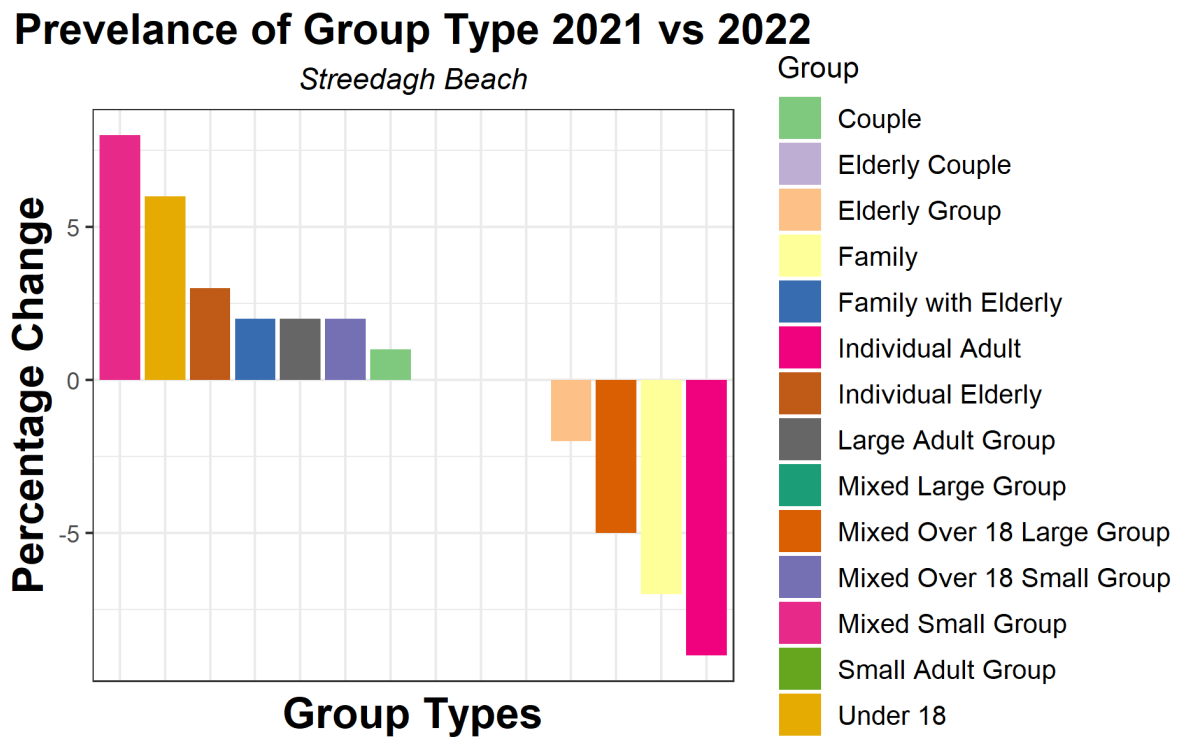

Figure 1.17 Percentage Change in groups of visitors that visited Streedagh Beach between 2021 and 2022

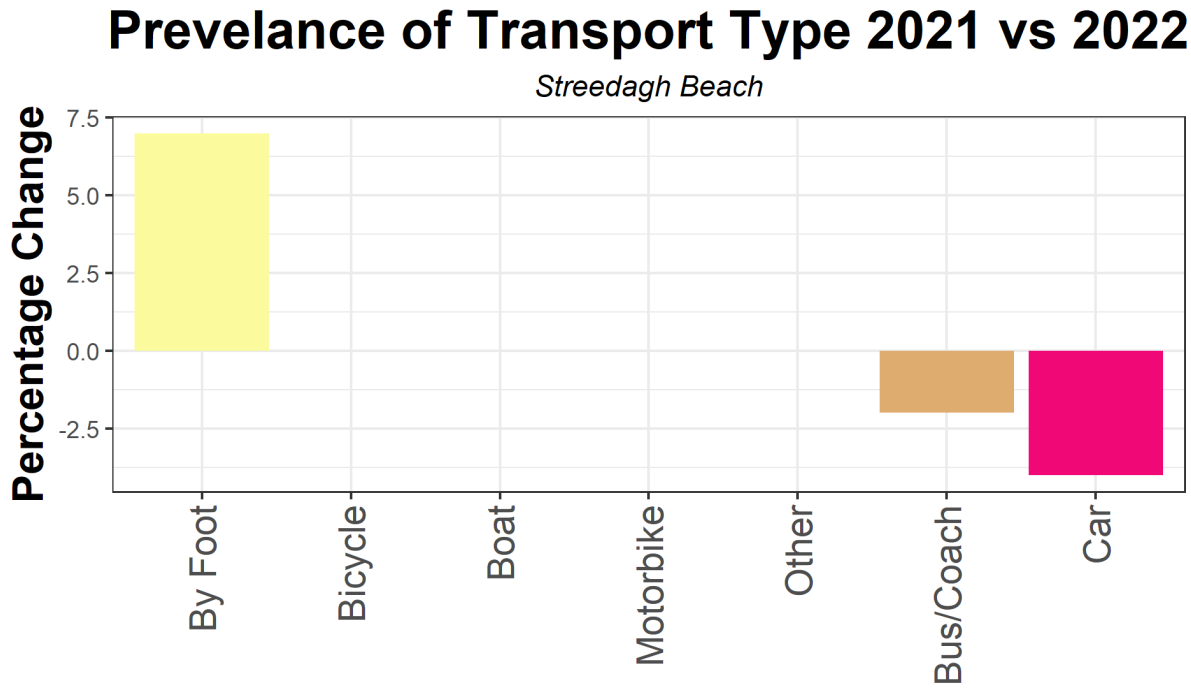

Figure 1.18 Percentage Change in mode of transport used to visit Streedagh Beach between 2021 and 2022

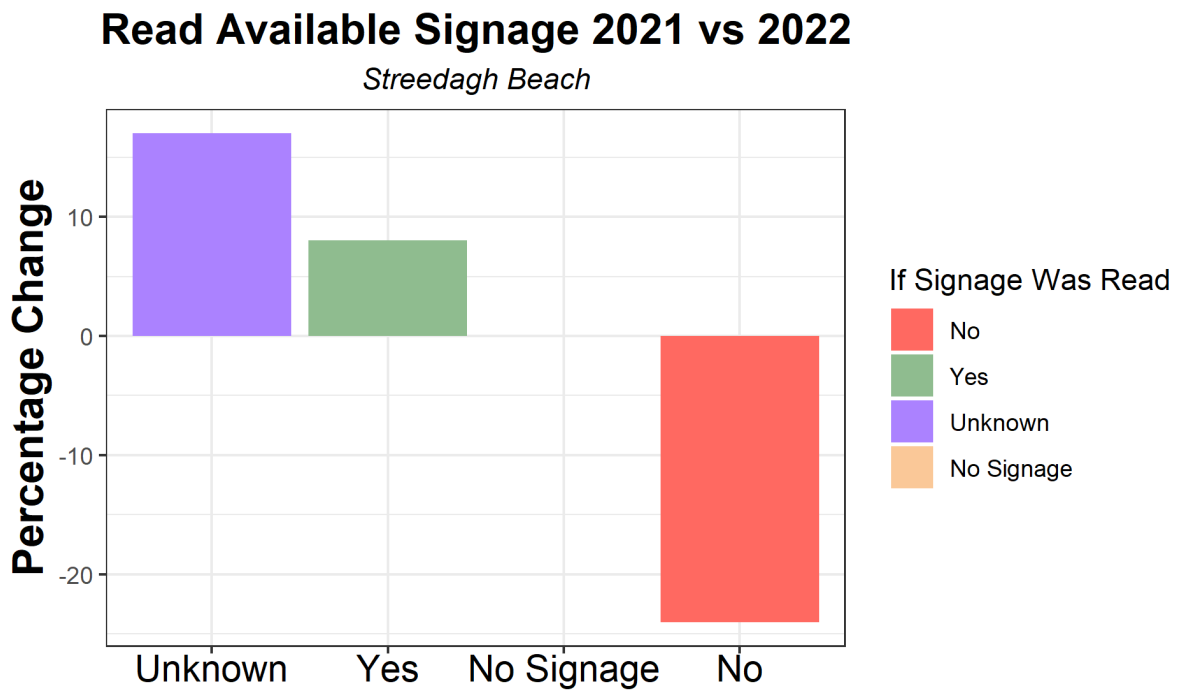

Figure 1.19 Percentage change in use of Interpretive Material at Streedagh Beach between 2021 and 2022

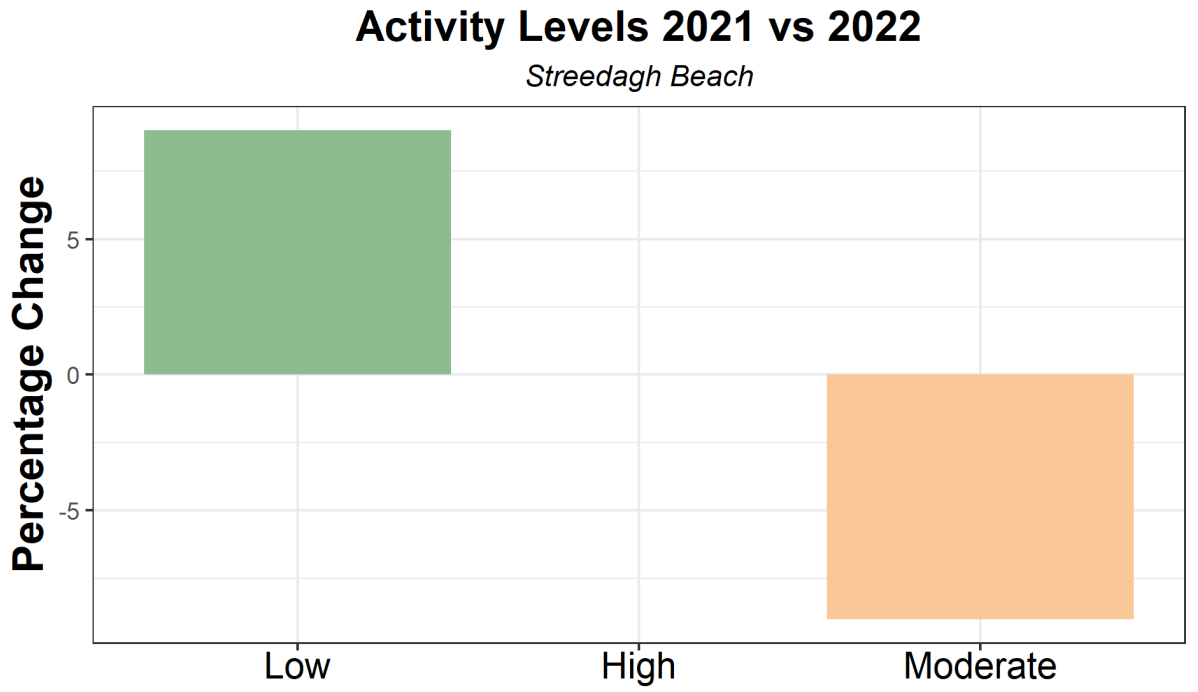

Figure 1.20 Percentage change in categories of Activity Levels Observed at Streedagh Beach between 2021 and 2022

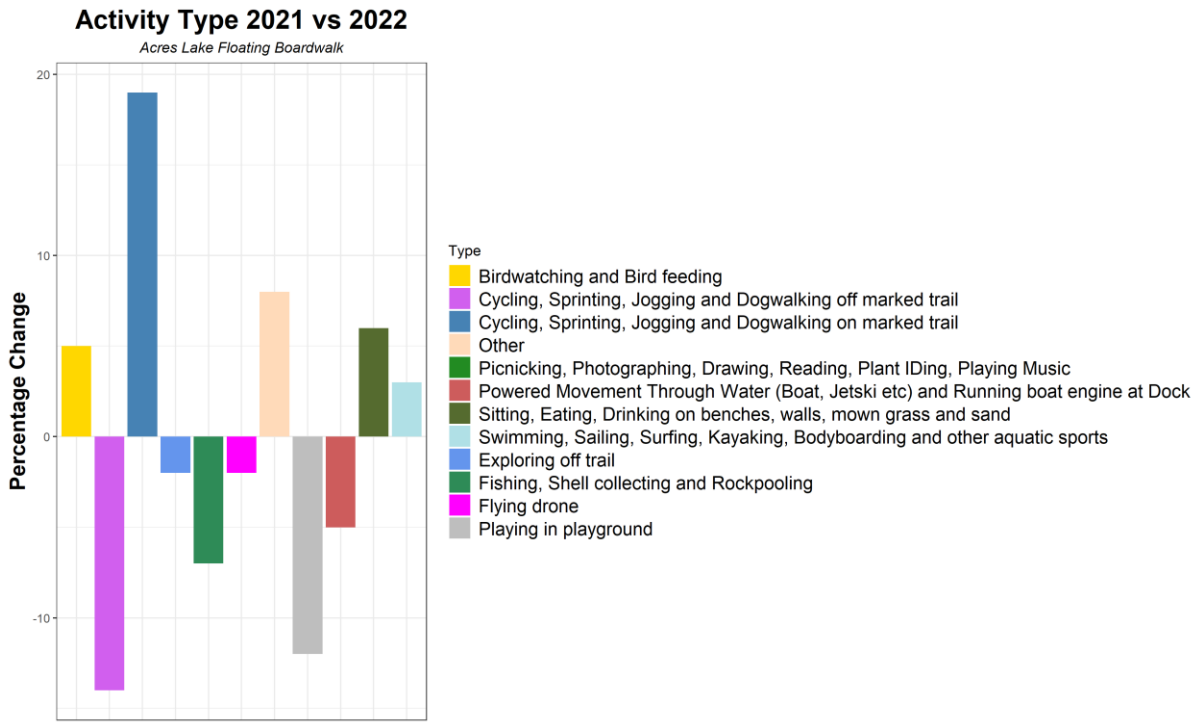

Figure 1.21 Percentage change in range of Visitor Activities Observed at Streedagh Beach between 2021 and 2022

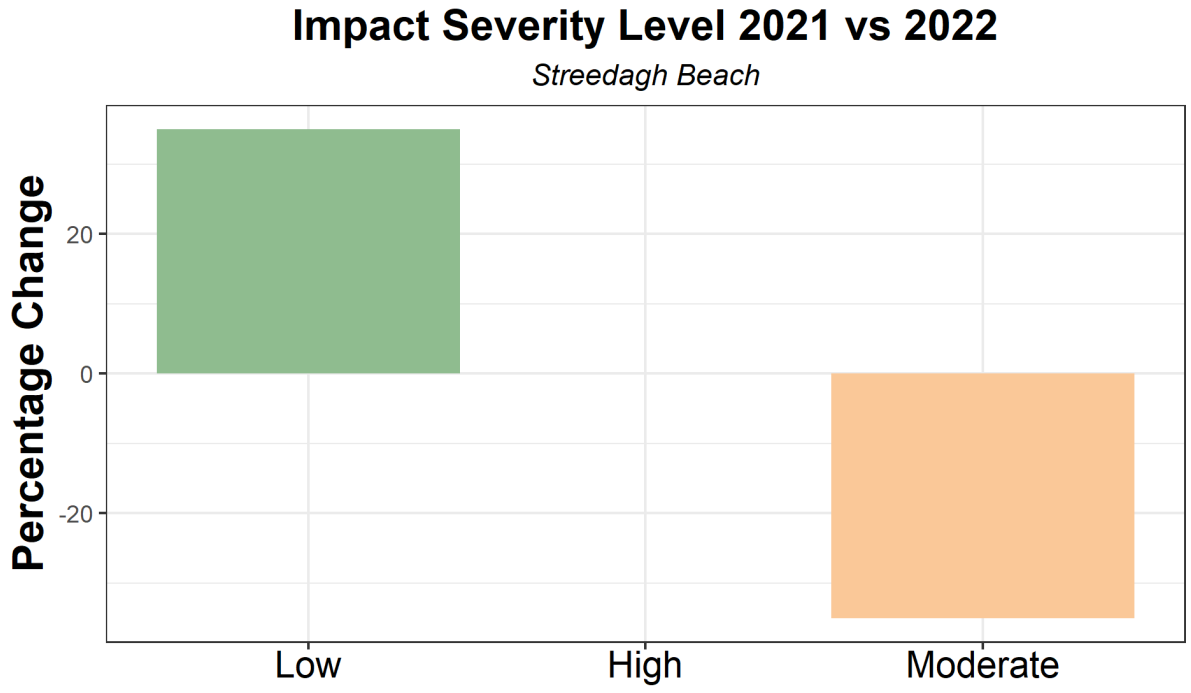

Figure 1.22 Percentage change in categories of Environmental Impact Levels Observed at Streedagh Beach as a result of Visitor Activities[6] between 2021 and 2022

[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.

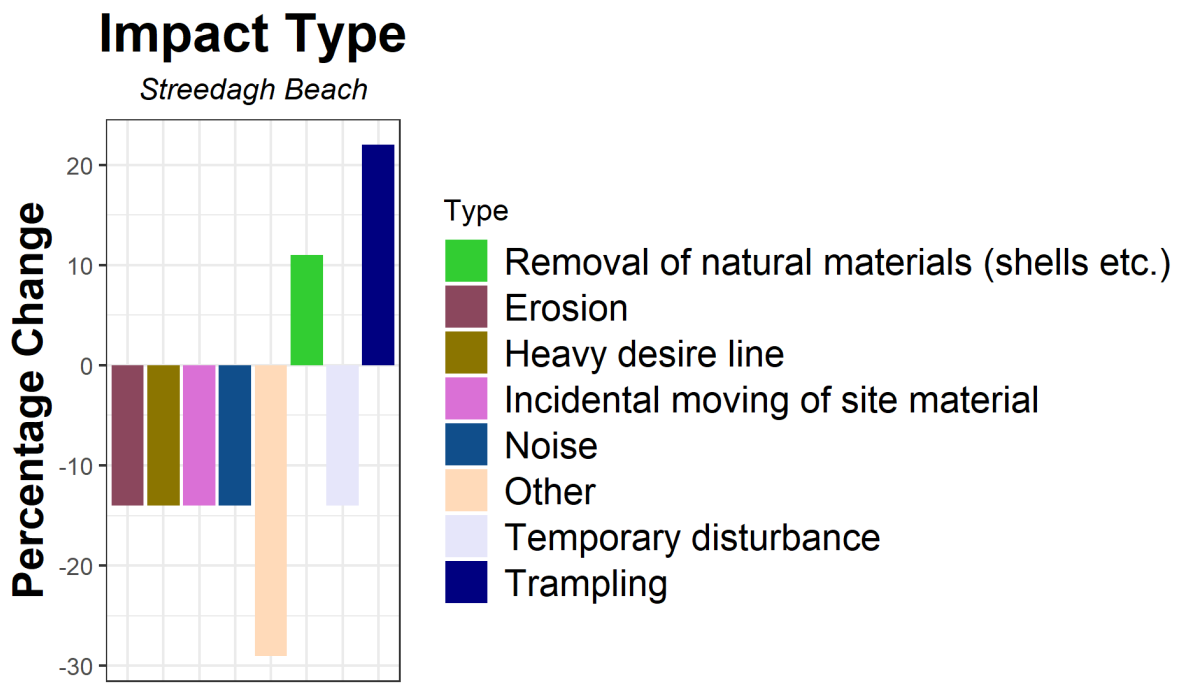

Figure 1.23 Percentage change in range of Environmental Impacts Observed at Streedagh Beach between 2021 and 2022

Table 1.4 Summary of changes with previous survey results

Survey	Notable Differences	Comment
Visitor Dwell Time	• Overall dwell time increased by 30%	Higher number of visitors to the site could lead to an increase in dwell time
Prevalence of Group Type	• 9% decrease in individual adults • 7% decrease in families • 8% increase in mixed small group • 6% increase in under 18s	No significant observations can be made from the group types that visited Streedagh Beach
Prevalence of Transport Type	• 4% decrease by car • 7% increase by foot	Small decrease in visitors arriving by car along with a small increase in visitors arriving to site by foot
Read Available Signage	• Signage not read dropped by 24% • 8% increase in signage read • Unknown increase by 17%	Overall slight increase in signage read, this is a significant increase as no visitors read signage during the 2021 survey
Activity Levels	• Moderate activity levels decreased by 9% • Low activity levels increased by 9% • No change in high activity levels	No significant changes observed
Activity Undertaken Other Than Walking	• No changes observed	No significant changes observed
Activity Type	• Jogging, cycling and dog walking etc. on marked trails decreased by 13% • Sitting, eating etc. increased by 18% • Exploring off trail increased by 5%	Decrease in activities done on marked trails along with a small increase in visitors exploring off trail Moderate increase in stationary activities such as sitting and eating

Impact Severity Level	• No change in high impact level • Low impact level increased by 35% • Moderate impact level decreased by 35%	Low numbers of individual impacts were observed for both years and thusly, these percentages are not indicative on any trends in visitor activity
Impact Type	• 22% increase in trampling • 11% increase in in removal of natural materials • 14% decrease in temporary disturbance	Low numbers of individual impacts were observed for both years and thusly, these percentages are not indicative on any trends in visitor activity

1.7 Ecological Monitoring Results

1.7.1 Ecological Constraints

The sensitive species and habitats of the designated sites within 2km of Streedagh Beach are sensitive to hydrological changes, land use management and overgrazing.

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

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[001680]	Streedagh Point Dunes pNHA	0	pNHA	
[001680]	Streedagh Point Dunes SAC	0	SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Narrow-mouthed whorl snail *(Vertigo angustior)* [1014], Perennial vegetation of stony banks [1220], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with *Ammophila arenaria* - white dunes [2120], Mediterranean salt meadows *(Juncetalia maritimi)* [1410]

1.7.2 Habitat Descriptions

The majority of the habitats at this site consist of sand shores (Fossitt Code LS2) and infralittoral muddy sands (Fossitt Code SS2). Streedagh Beach also contains marram dunes (Fossitt Code CD2) and fixed dunes (Fossitt Code CD3) which align with the Annex I habitat for which the SAC, Streedagh Point Dunes, is designated (Fixed coastal dunes with herbaceous vegetation – grey dunes [2130]).

There is an extensive network of trails through the dunes which have locally exhibit erosion and exposed sand. The density of trails is extremely high but localised – but all habitats off-trail are relatively undisturbed.

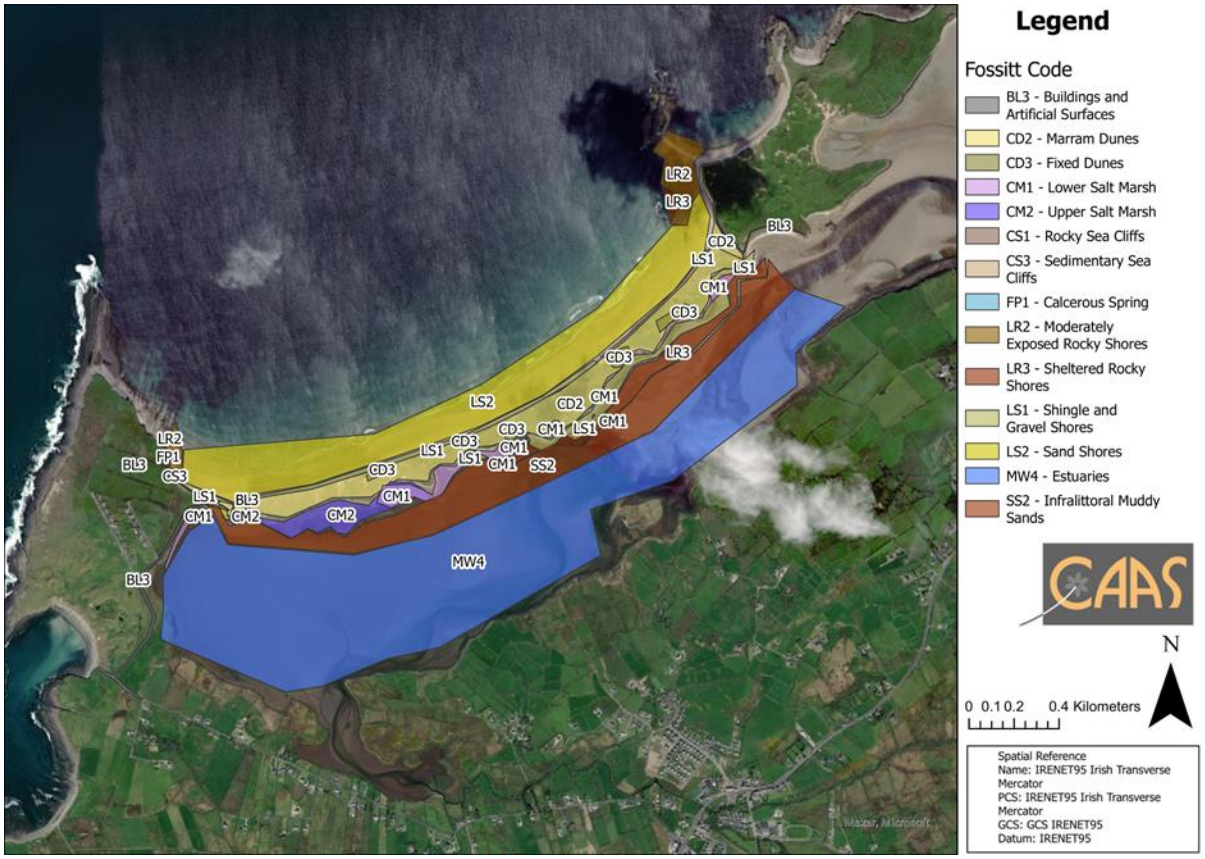

Figure 1.24 Habitats present at Streedagh Beach

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

The NBDC data shows that the most of the mammal species within the area of Streedagh Beach are marine mammals. Common seals, grey seal and bottle-nosed dolphins were the most commonly observed marine mammal species in the area while in regards to terrestrial mammals, there were also numbers of hares, badgers, otters and foxes that were observed and recorded in the area.

Table 1.6 List of mammals that have been recorded at NBDC Hectad[7] G65

Group	Common name	Scientific name	Number recorded
Marine mammal	Bottle-nosed Dolphin	*Tursiops truncatus*	14
Marine mammal	Common Dolphin	*Delphinus delphis*	3
Marine mammal	Common Porpoise	*Phocoena phocoena*	9
Marine mammal	Common Seal	*Phoca vitulina*	38
Marine mammal	Cuvier's Beaked Whale	*Ziphius cavirostris*	2
Marine mammal	Grey Seal	*Halichoerus grypus*	13
Marine mammal	Minke Whale	*Balaenoptera acutorostrata*	2
Marine mammal	Phocidae	*Phocidae*	1
Marine mammal	Sowerby's Beaked Whale	*Mesoplodon bidens*	1
Marine mammal	Sperm Whale	*Physeter macrocephalus*	1
Marine mammal	Striped Dolphin	*Stenella coeruleoalba*	1
Marine mammal	White-beaked Dolphin	*Lagenorhynchus albirostris*	1
Terrestrial mammal	American Mink	*Mustela vison*	1
Terrestrial mammal	Brown Long-eared Bat	*Plecotus auritus*	1
Terrestrial mammal	Eurasian Badger	*Meles meles*	8
Terrestrial mammal	Eurasian Pygmy Shrew	*Sorex minutus*	1
Terrestrial mammal	Eurasian Red Squirrel	*Sciurus vulgaris*	1
Terrestrial mammal	European Otter	*Lutra lutra*	8
Terrestrial mammal	European Rabbit	*Oryctolagus cuniculus*	7
Terrestrial mammal	Irish Hare	*Lepus timidus subsp. hibernicus*	12
Terrestrial mammal	Irish Stoat	*Mustela erminea subsp. hibernica*	5
Terrestrial mammal	Lesser Noctule	*Nyctalus leisleri*	3
Terrestrial mammal	Pine Marten	*Martes martes*	4
Terrestrial mammal	Pipistrelle	*Pipistrellus pipistrellus*	2
Terrestrial mammal	Red Fox	*Vulpes vulpes*	9
Terrestrial mammal	Soprano Pipistrelle	*Pipistrellus pygmaeus*	5
Terrestrial mammal	West European Hedgehog	*Erinaceus europaeus*	1
Terrestrial mammal	Wolf	*Canis lupus*	1
Terrestrial mammal	Wood Mouse	*Apodemus sylvaticus*	1

1.7.5 NBDC Records of Birds

Given the habitats at Streedagh Beach and the surrounding area, a large number of wading species were recorded by the NBDC such as dunlin, arctic terns, little egrets and guillemots. Along with this, a number of common birds such as bluetits, blackbirds and jackdaws have also been recorded and a large number of gulls, given the coastal location of Streedagh Beach.

Table 1.7 List of birds that have been recorded at NBDC Hectad[8] G65

Group	Common name	Scientific name	Number recorded
Bird	Anthus spinoletta/petrosus agg.	*Anthus spinoletta/petrosus agg.*	1
Bird	Arctic Tern	*Sterna paradisaea*	1
Bird	Bar-tailed Godwit	*Limosa lapponica*	7
Bird	Barn Swallow	*Hirundo rustica*	7
Bird	Barnacle Goose	*Branta leucopsis*	4
Bird	Black-billed Magpie	*Pica pica*	14
Bird	Black-headed Gull	*Larus ridibundus*	6
Bird	Black-legged Kittiwake	*Rissa tridactyla*	9
Bird	Black-tailed Godwit	*Limosa limosa*	1
Bird	Black Guillemot	*Cepphus grylle*	6
Bird	Blackcap	*Sylvia atricapilla*	4
Bird	Blue Tit	*Cyanistes caeruleus*	12
Bird	Bohemian Waxwing	*Bombycilla garrulus*	1
Bird	Branta bernicla subsp. hrota	*Branta bernicla subsp. hrota*	5

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

Group	Common name	Scientific name	Number recorded
Bird	Brent Goose	*Branta bernicla*	7
Bird	Chaffinch	*Fringilla coelebs*	14
Bird	Coal Tit	*Periparus ater*	5
Bird	Common Blackbird	*Turdus merula*	16
Bird	Common Bullfinch	*Pyrrhula pyrrhula*	8
Bird	Common Chiffchaff	*Phylloscopus collybita*	6
Bird	Common Crossbill	*Loxia curvirostra*	1
Bird	Common Cuckoo	*Cuculus canorus*	4
Bird	Common Eider	*Somateria mollissima*	7
Bird	Common Grasshopper Warbler	*Locustella naevia*	4
Bird	Common Greenshank	*Tringa nebularia*	7
Bird	Common Guillemot	*Uria aalge*	1
Bird	Common Kestrel	*Falco tinnunculus*	8
Bird	Common Linnet	*Carduelis cannabina*	7
Bird	Common Pheasant	*Phasianus colchicus*	5
Bird	Common Raven	*Corvus corax*	5
Bird	Common Redshank	*Tringa totanus*	10
Bird	Common Sandpiper	*Actitis hypoleucos*	1
Bird	Common Scoter	*Melanitta nigra*	4
Bird	Common Shelduck	*Tadorna tadorna*	5
Bird	Common Snipe	*Gallinago gallinago*	3
Bird	Common Starling	*Sturnus vulgaris*	14
Bird	Common Tern	*Sterna hirundo*	1
Bird	Common Whitethroat	*Sylvia communis*	6
Bird	Common Wood Pigeon	*Columba palumbus*	9
Bird	Corn Crake	*Crex crex*	1
Bird	Dunlin	*Calidris alpina*	10
Bird	Eurasian Collared Dove	*Streptopelia decaocto*	3
Bird	Eurasian Curlew	*Numenius arquata*	14
Bird	Eurasian Jackdaw	*Corvus monedula*	15
Bird	Eurasian Oystercatcher	*Haematopus ostralegus*	15
Bird	Eurasian Siskin	*Carduelis spinus*	2
Bird	Eurasian Sparrowhawk	*Accipiter nisus*	4
Bird	Eurasian Teal	*Anas crecca*	2
Bird	Eurasian Wigeon	*Anas penelope*	4
Bird	European Golden Plover	*Pluvialis apricaria*	2
Bird	European Goldfinch	*Carduelis carduelis*	10
Bird	European Greenfinch	*Carduelis chloris*	8
Bird	European Robin	*Erithacus rubecula*	17
Bird	European Shag	*Phalacrocorax aristotelis*	20
Bird	European Storm-petrel	*Hydrobates pelagicus*	4
Bird	Fieldfare	*Turdus pilaris*	4
Bird	Glaucous Gull	*Larus hyperboreus*	1
Bird	Goldcrest	*Regulus regulus*	10
Bird	Great Black-backed Gull	*Larus marinus*	10
Bird	Great Cormorant	*Phalacrocorax carbo*	8
Bird	Great Egret	*Ardea alba*	1
Bird	Great Northern Diver	*Gavia immer*	7
Bird	Great Skua	*Stercorarius skua*	1
Bird	Great Tit	*Parus major*	9
Bird	Grey Heron	*Ardea cinerea*	8
Bird	Grey Plover	*Pluvialis squatarola*	4
Bird	Grey Wagtail	*Motacilla cinerea*	7
Bird	Hedge Accentor	*Prunella modularis*	13
Bird	Hen Harrier	*Circus cyaneus*	1
Bird	Herring Gull	*Larus argentatus*	14
Bird	Hooded Crow	*Corvus cornix*	19
Bird	House Martin	*Delichon urbicum*	8
Bird	House Sparrow	*Passer domesticus*	9
Bird	Lesser Black-backed Gull	*Larus fuscus*	3
Bird	Lesser Redpoll	*Carduelis cabaret*	3
Bird	Little Egret	*Egretta garzetta*	1
Bird	Little Grebe	*Tachybaptus ruficollis*	3
Bird	Long-tailed Duck	*Clangula hyemalis*	5
Bird	Long-tailed Tit	*Aegithalos caudatus*	3
Bird	Mallard	*Anas platyrhynchos*	9

Group	Common name	Scientific name	Number recorded
Bird	Manx Shearwater	*Puffinus puffinus*	26
Bird	Meadow Pipit	*Anthus pratensis*	21
Bird	Merlin	*Falco columbarius*	1
Bird	Mew Gull	*Larus canus*	11
Bird	Mistle Thrush	*Turdus viscivorus*	8
Bird	Mute Swan	*Cygnus olor*	5
Bird	Northern Fulmar	*Fulmarus glacialis*	42
Bird	Northern Gannet	*Morus bassanus*	16
Bird	Northern Lapwing	*Vanellus vanellus*	7
Bird	Northern Wheatear	*Oenanthe oenanthe*	11
Bird	Pied Wagtail	*Motacilla alba subsp. yarrellii*	1
Bird	Purple Sandpiper	*Calidris maritima*	1
Bird	Razorbill	*Alca torda*	2
Bird	Red-billed Chough	*Pyrrhocorax pyrrhocorax*	6
Bird	Red-breasted Merganser	*Mergus serrator*	9
Bird	Red-throated Diver	*Gavia stellata*	3
Bird	Red Knot	*Calidris canutus*	2
Bird	Redwing	*Turdus iliacus*	5
Bird	Reed Bunting	*Emberiza schoeniclus*	8
Bird	Ringed Plover	*Charadrius hiaticula*	16
Bird	Rock Pigeon	*Columba livia*	1
Bird	Rock Pipit	*Anthus petrosus*	10
Bird	Rook	*Corvus frugilegus*	10
Bird	Ruddy Turnstone	*Arenaria interpres*	7
Bird	Sand Martin	*Riparia riparia*	3
Bird	Sanderling	*Calidris alba*	6
Bird	Sandwich Tern	*Sterna sandvicensis*	3
Bird	Sedge Warbler	*Acrocephalus schoenobaenus*	3
Bird	Sky Lark	*Alauda arvensis*	19
Bird	Snow Bunting	*Plectrophenax nivalis*	2
Bird	Song Thrush	*Turdus philomelos*	15
Bird	Spotted Flycatcher	*Muscicapa striata*	1
Bird	Stonechat	*Saxicola torquata*	13
Bird	Twite	*Carduelis flavirostris*	2
Bird	Whinchat	*Saxicola rubetra*	1
Bird	White-throated Dipper	*Cinclus cinclus*	3
Bird	White Wagtail	*Motacilla alba*	15
Bird	Whooper Swan	*Cygnus cygnus*	1
Bird	Willow Warbler	*Phylloscopus trochilus*	4
Bird	Winter Wren	*Troglodytes troglodytes*	19
Bird	Yellowhammer	*Emberiza citrinella*	3

1.8 Recommendations

- As with the recommendations set forth in the 2021 report, the density trails on site at Streedagh Beach are very high and localised. In saying this though the habitats off trail are relatively undisturbed. However, it should be noted that efforts should be made in order to consolidate the trails on site.
- To alleviate pressures on the sensitive dune habitats on site, a dynamic path management system should be introduced along with a habitat restoration plan in heavily impacted areas.
- The current parking management system on site seems to be inefficient as it consists of movable barriers. Therefore, as with the 2021 report, it is recommended that an examination should take place of how to improve the existing management system for parking.
- There is little engaging interpretive material on site for visitors, as shown by only 8% of visitors on site interacting with what interpretive material is on site. Therefore, efforts should be made to increase the number of engaging interpretive material in increase awareness of the importance and sensitivities of the habitats at Streedagh Beach.

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.