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# NATIONAL TOURISM MONITORING PROGRAMME 2021-2025

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## ANNUAL RESULTS FOR 2022

### CARLINGFORD

**for:**

**Fáilte Ireland**

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**by:**

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**February 2023**

# Document Control

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## Carlingford – Interesting Finds

### ECOLOGICAL HIGHLIGHTS

Otters are also known to frequent Carlingford lough, although none were spotted during the visit. Carlingford Lough and the surrounding coastal area, play host to multiple whale and dolphin [cetacean] species including bottle nosed dolphins and within the last few years, a bowhead whale.



### KEY RECOMMENDATIONS

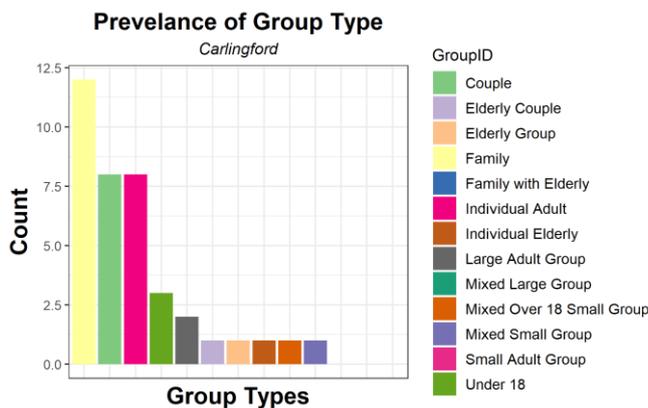
- Landscaping of the urban areas could be utilised to create resources for invertebrates and pollination to parklands and areas of amenity grasslands to promote biodiversity
- Nature signage on site mainly focuses on bird species and could be broadened to include a wider variety of the ecological aspects of Carlingford.
- Dumping and littering were the main impacts identified in Carlingford during the 2021 survey. No littering was observed in 2022 however, litter management processes in Carlingford should still be reviewed with respect to the current demands on the existing bins.

### VISITOR INTERACTION & MANAGEMENT

- Visitor interactions on site well controlled with strong management practices in place.
- Urban aspect of Carlingford means there were few high impact activities were undertaken on site.
- Low levels of visitor impacts were observed in 2022 when compared to 2021, with no littering or dumping observed in 2022.
- Most of the visitors to the site stayed for at least 49 minutes

### VISITOR NUMBERS AND DWELL TIME

- 111 people visited the site over 8 hours
- Average dwell time of 49 minutes



### Highlights:

- Strong wintering bird population
- Strong habitat for local marine wildlife
- Long site dwell time of at least 49 minutes
- Site signage is limited – missed opportunity for wildlife



# 1 Carlingford

## 1.1 Purpose & Outputs of the Programme

Building on the success of the Wild Atlantic Way (WAW) environmental monitoring programme which ran from 2015-2019 – Fáilte Ireland has decided to expand the programme to a national level. The programme will monitor 19 individual sites located in all of Fáilte Irelands regional areas; The Wild Atlantic Way, Irelands Hidden Heartlands, Irelands Ancient East and Dublin. The programme will run for 5 years from 2021-2025.

The sites that are included in the programme vary in type from inland forest parks, to coastal sites, to privately owned attractions and diverse urban locations - can be seen below.



The purpose of the programme is as follows:

- To gain more insight from an environmental perspective as to what is happening at a variety of sites where we encourage visitors to frequent,
- To gather information (visitor behaviour, movement, path and trail conditions, surveys for birds, flora etc) for each site over the course of 5 years,
- To understand if there are observable trends and/or observable variations amongst site types over a 5-year period,
- To note good & bad practice at sites in order to;

- Make recommendations where appropriate for site management which is intended will have sustainable benefits for the site, the visitor and the natural environment.

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

This culminated in our ability to make useful recommendations to site owners and managers and ultimately to development a practical set of Guidelines for Visitor management (from Planning thorough to Site Operation).

It is hoped that we can build on the learnings of this previous programme and by engaging with site managers, to knowledge share, can enhance the information that we gather for each site chosen nationally for this new programme.

The key areas of focus within the data being gathered is to answer the following questions:

- How do the learning outcomes from the WAW monitoring compare when using repeat measures at fixed locations over a long period? Hence, what are the predictors of impact occurrence and severity?
- Following on from the WAW monitoring data – with the refined methods we aim to understand what activities cause which impact; and what are the factors which influence these activity choices in visitors?
- Understanding visitor movement patterns with respect to ranging behaviours – i.e., is there a distance threshold where impacts are less severe or negligible?
- Undertake pathway condition assessments to understand the relative sensitivities or tolerances of path types to visitor movements – taking note of habitat type and visitor numbers/load capacity.

These questions will be answered upon completion of the full suite of surveys and data collected annually over the course of the monitoring programme. However, each year will have annual interim reports to enable emerging findings and management recommendation to be identified and shared with the relevant stakeholders to support progressive management practices.

### **1.1.1 Looking Ahead**

The National Tourism Monitoring Programme aims to assess and characterise visitor movements and impacts in 19 popular Fáilte Ireland tourism sites across Ireland within a 5-year period. This will be achieved through building on the methodologies and findings of the Wild Atlantic Way Environmental Monitoring Programme (2015-2019), by monitoring yearly trends in visitor numbers and movements during the high tourism season at each site. In addition to the annual visitor trend monitoring; visitor impact assessments, which examine visitor activity levels relative to condition assessments, will also be taken every two years for each site. At the end of the 5-year period, the resultant extensive data set will be analysed for long term trends and correlations between visitor numbers, visitor activity, and site condition assessments, at each site across the 5 years of the programme.

This monitoring programme will allow an examination of year-on-year shifts in visitor impact and trends, across each of Fáilte Ireland's regional areas; The Wild Atlantic Way, Irelands Hidden Heartlands, Irelands Ancient East and Dublin, resulting in an annual interim report for each year - while also assessing visitors trends, and changes in the condition of the each of the sites' habitats in relation to visitor trends, over a the entire 5-year period of the programme.

The long-term aim of the Monitoring Programme will be to inform local authorities and stakeholders to help in the design and implementation of methods that will encourage the sustainable management of visitor numbers and tourism activities, while also aiming to protect vulnerabilities of the local area's habitats in order to reduce environmental impact and enable more effective local conservation of each site.

## 1.2 Methods & Surveys

The following surveys were undertaken at Carlingford:

### 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 Carlingford was undertaken on the 28<sup>th</sup> of August 2022, with max temperatures reaching approximately 19.6° C, and very low levels rainfall on the day<sup>1</sup>. 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 Carlingford

Carlingford is a coastal town of medieval origins in County Louth and is conveniently halfway between the cities of Belfast and Dublin. Carlingford is located close to Slieve Foy and is on Carlingford Lough, which offer a range of recreational activities to locals and visitors alike. Carlingford Lough SPA and Carlingford Shore SAC are located directly next to the town of Carlingford and has coastal habitats such as mixed substrata shores and shingle and gravel shores. The harbour and adjoining marine waters are much used for adventure water sports.

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

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<sup>1</sup> Weather data gathered from closest available weather stations to the site from: <https://www.met.ie/climate/available-data/historical-data>



**Figure 1.1 Carlingford**



**Figure 1.2 Study Area within Carlingford SAC**

### 1.3.1 Critical Infrastructure

**Table 1.1 Summary of Wastewater infrastructure at Carlingford**

Wastewater Treatment Plant (WWTP)	Irish Water Indication of Capacity	Comment
Public toilet facilities are available  There is currently a WWTP within Carlingford town (#D0268)	Potential spare capacity to be considered on case-by-case basis <sup>2</sup> .	Current wastewater facilities are sufficient if visitor numbers increase.  There is capacity available within the treatment plant if required <sup>3</sup>

**Table 1.2 Summary of Drinking Water infrastructure at Carlingford**

Drinking Water	Water Resource Name (WRZ)	Irish Water Indication of Capacity	Comment
As an urban town, Carlingford is a heavily serviced area	Cavanhill & North Louth	Capacity available – Level of service (LoS) improvement required <sup>4</sup> .	Current water supply is sufficient

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

<sup>3</sup> <https://www.louthcoco.ie/en/publications/development-plans/louth-county-development-plan-2021-2027/1-carlingford-consolidated-.pdf>

<sup>4</sup> <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/louth/>

**Table 1.3 Summary of Transport infrastructure at Carlingford**

Nearest Settlement	Current Transport Infrastructure	Comment
Carlingford	As an urban area, Carlingford is highly accessible with multiple roadways leading to the town and a number of bus services that serve the town	The construction of a car park would alleviate pressures during peak tourist season <sup>5</sup>

## 1.4 Pathways and Features Condition Results

### 1.4.1 Pathway Condition

All of the pathways are along roads or hard surfaced piers. There are no notable damaged areas. Water access is mostly via concrete slipway structures.



**Figure 1.3 Pathways identified at Carlingford**



**Figure 1.4 Pathways and water access at Carlingford**

<sup>5</sup> <https://www.louthcoco.ie/en/publications/development-plans/louth-county-development-plan-2021-2027/1-carlingford-consolidated-.pdf>

### 1.4.2 Features Condition

Carlingford contains a number of informational signs related to both the historical and the natural aspects of the area (Figure 1.6). Along with these signs there are multiple attractions and monuments within Carlingford such as a fairy trail, a statue of the brown bull of Cooley, the giant's chair, and the ever-present Carlingford castle (Figure 1.6). Along with these, there are also other amenities relating to tourism and leisure with tennis courts, an adventure centre and a visitor office.



Figure 1.5 Features recorded at Carlingford



Figure 1.6 Wildlife Sign at Carlingford and Carlingford castle

### 1.4.3 Hazards

No hazards of any significance were reported in Carlingford.

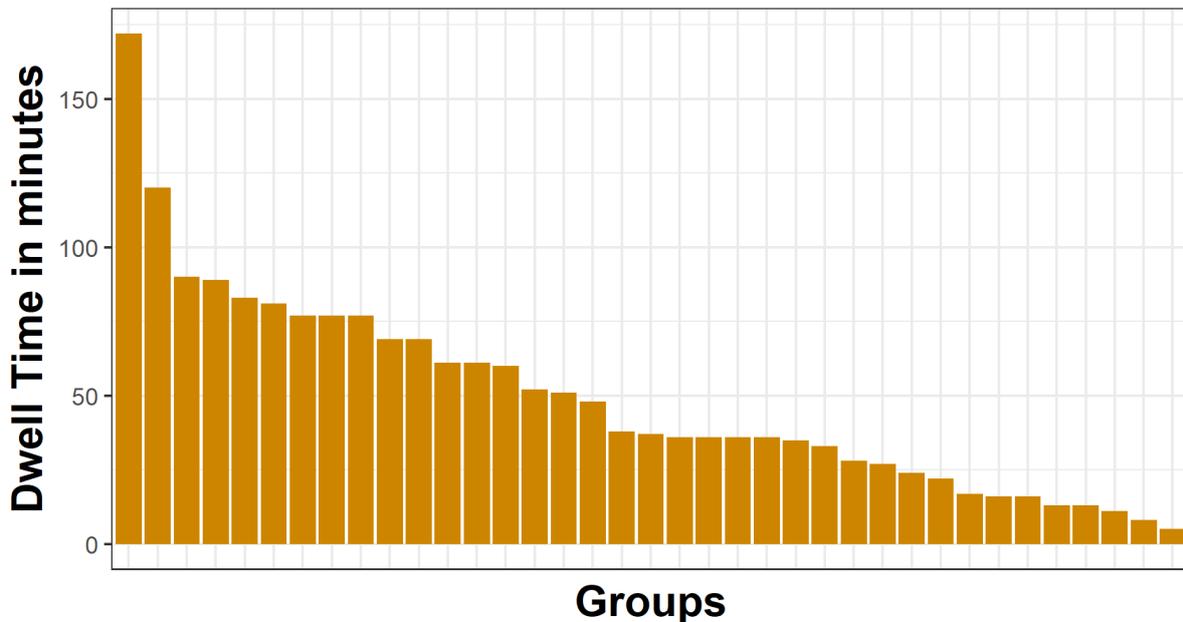
### 1.5 Visitor Characterisation Survey

The visitor monitoring surveys resulted in a total of 111 visitors, a significant decrease from 179 in 2021, (which represent 38 group observations). The site is most popular amongst the family group with the dominant mode of transport being by foot. The average dwell time for the site was 49 minutes, which is only 1 minute less than 2021; with the following activities undertaken during the survey (listed in order of occurrence rate):

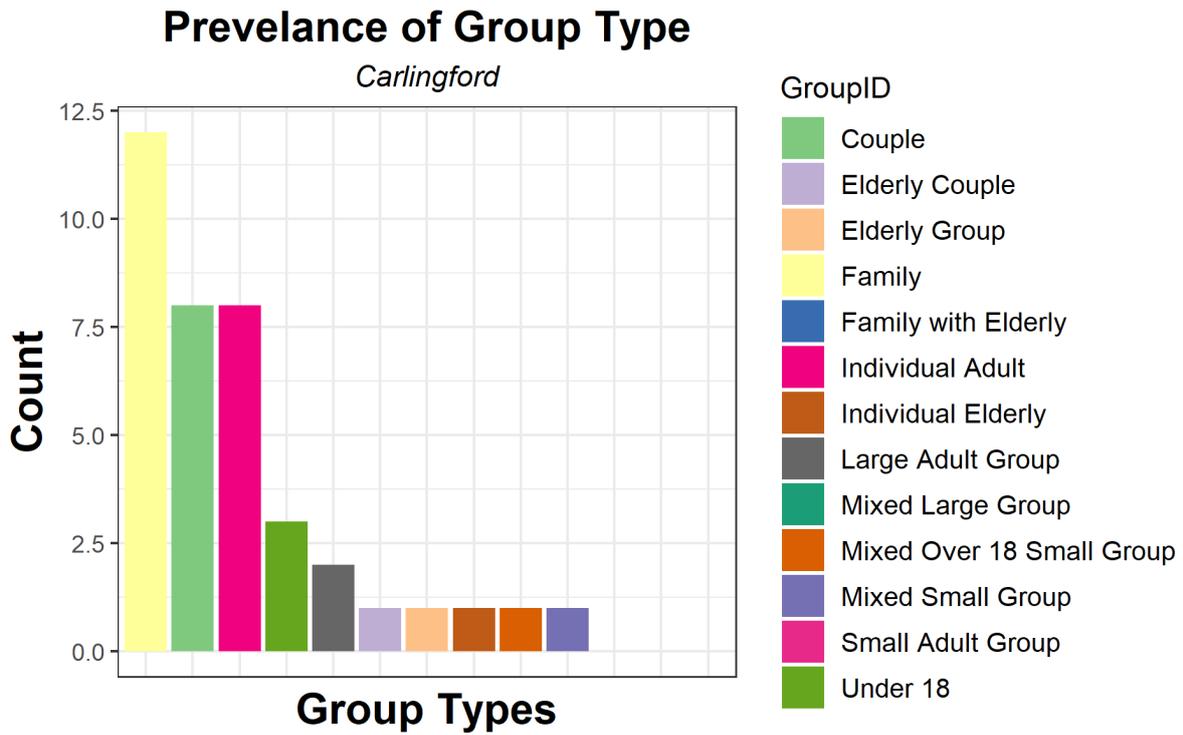
Activity Type
Dog walking (on lead)
Swimming
Exploring off trail
Other
Photographing
Sitting
Cycling
Dogwalking (off lead)
Scooter
Café
Off road driving and Quadbiking
SUP Boarding

## Dwell Time

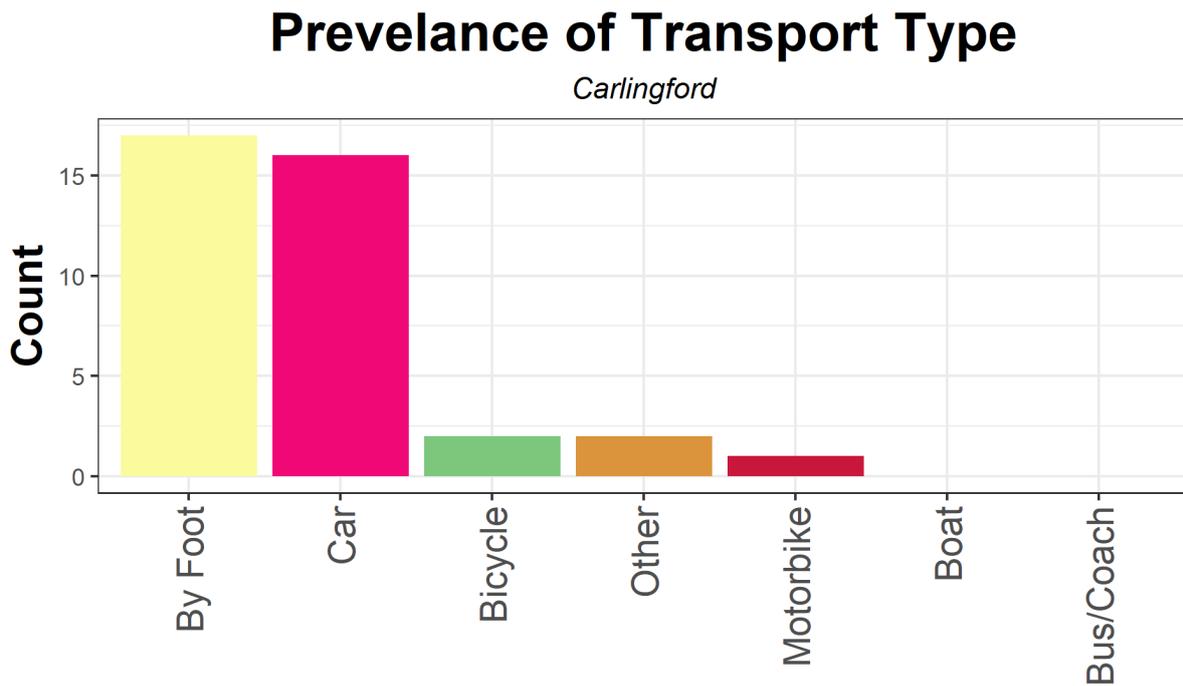
*Carlingford*



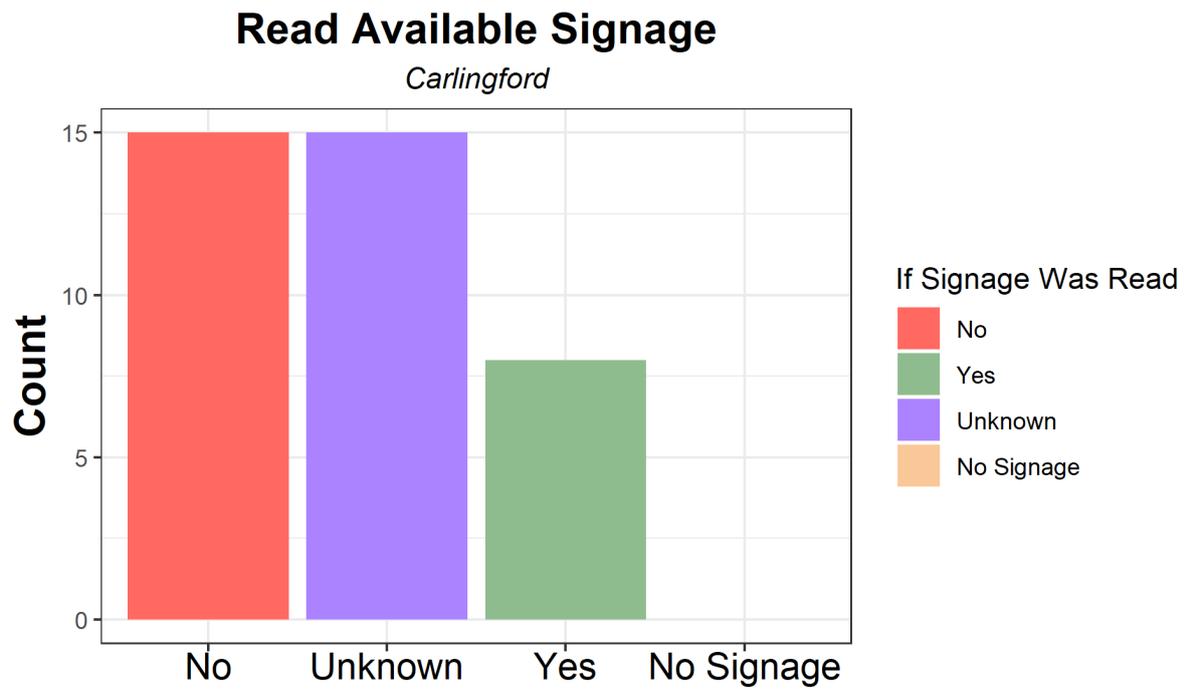
**Figure 1.7 Duration of Time Spent at Carlingford**



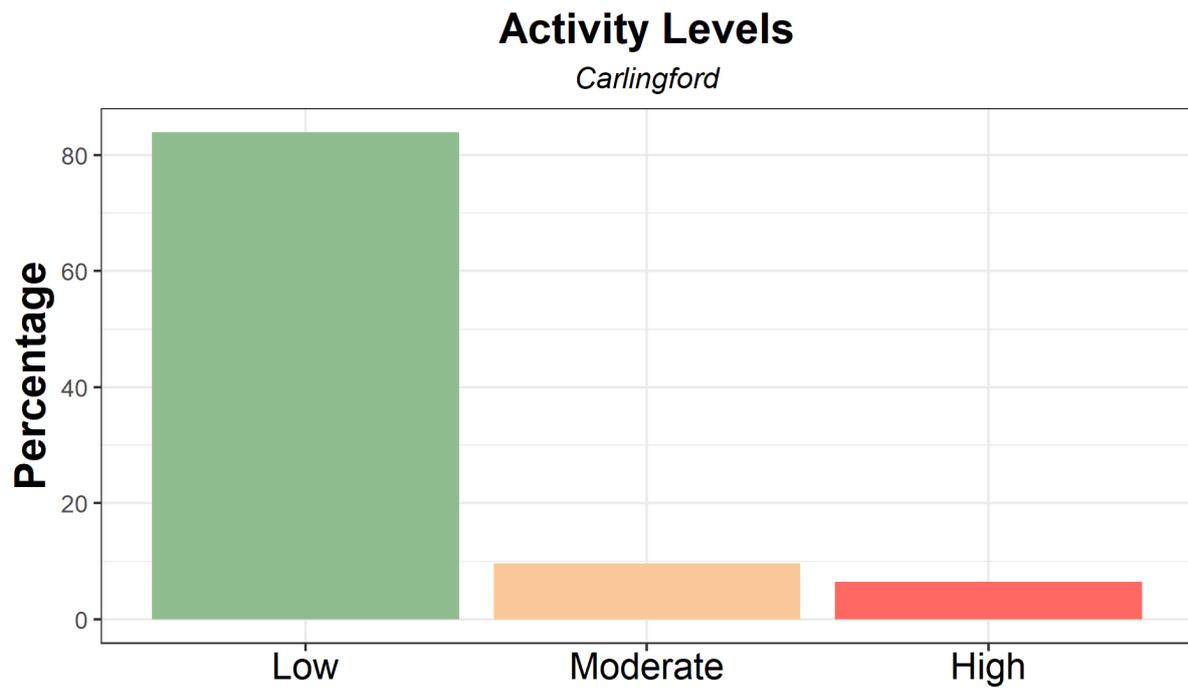
**Figure 1.8** Groups of visitors that visited Carlingford



**Figure 1.9** Mode of transport used to visit Carlingford



**Figure 1.10 Use of Interpretive Material at Carlingford**



**Figure 1.11 Categories of Activity Levels Observed at Carlingford**

## Activity Undertaken Other Than Walking

Carlingford

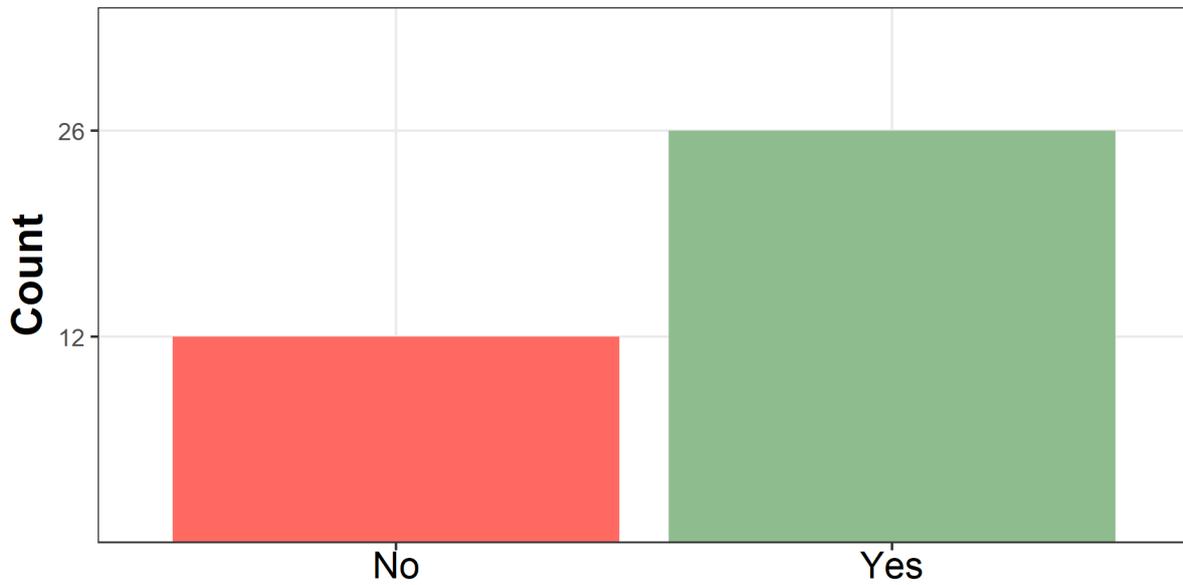


Figure 1.12 Activities undertaken other than walking

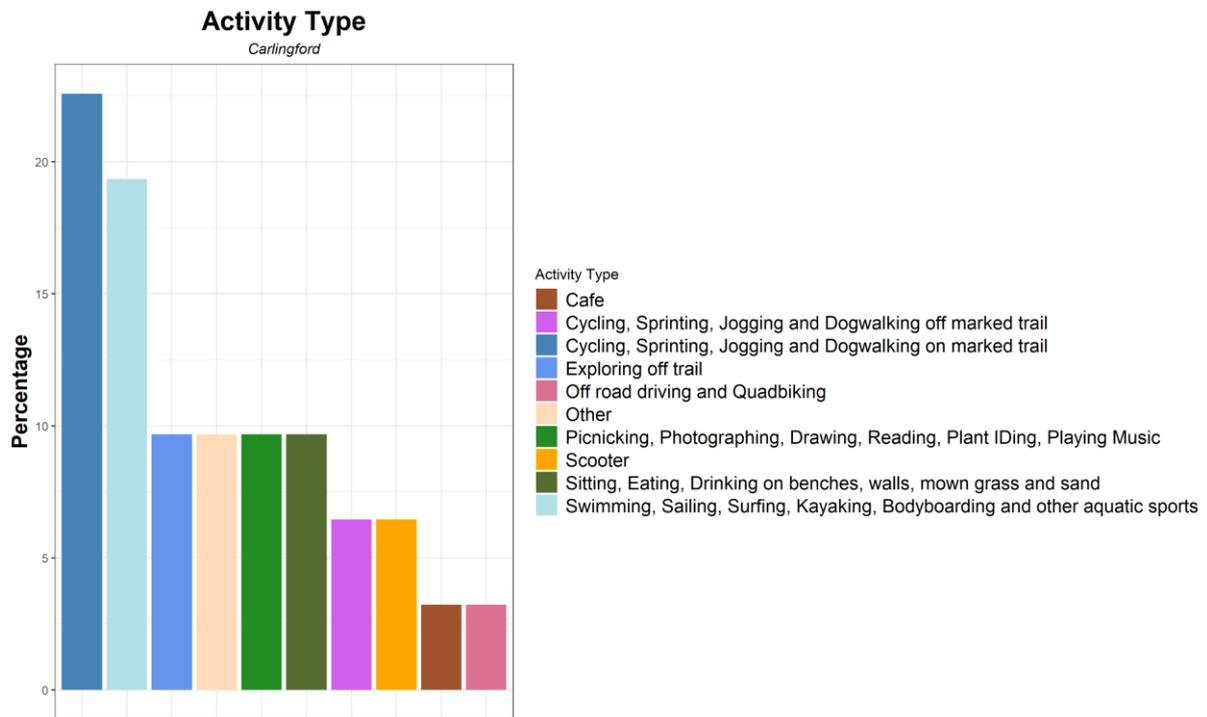
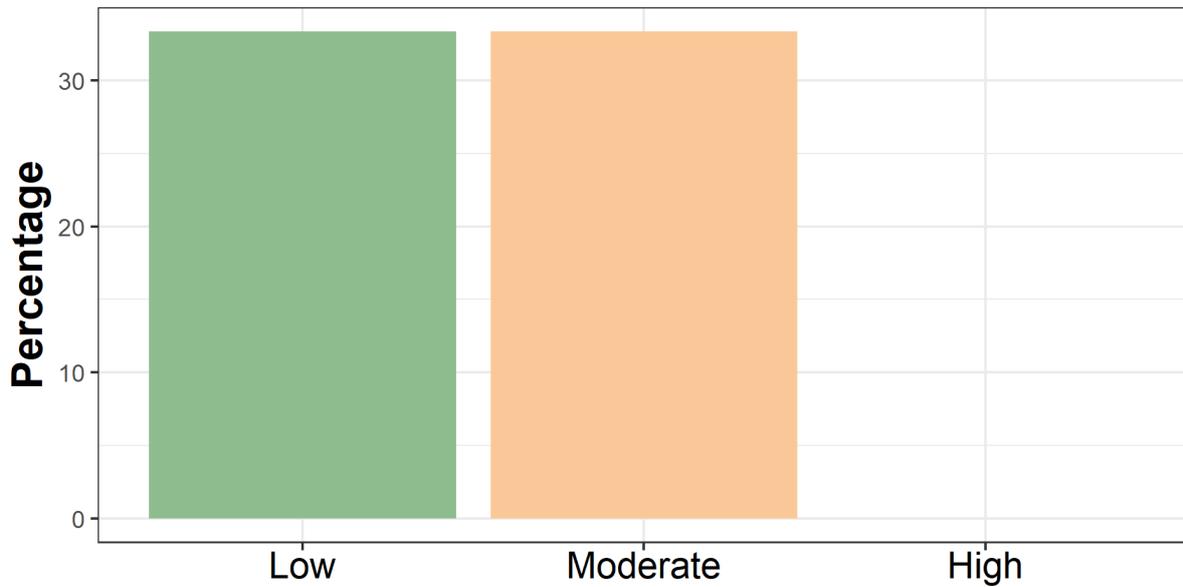


Figure 1.13 Range of Visitor Activities Observed at Carlingford

### Impact Severity Level

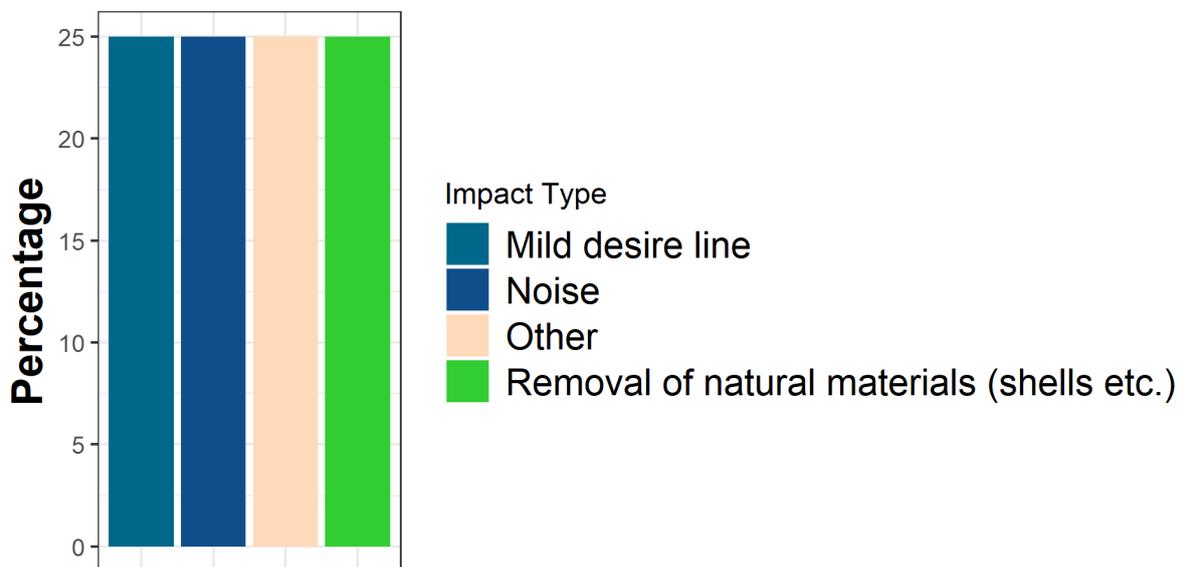
*Carlingford*



**Figure 1.14 Categories of Environmental Impact Levels Observed at Carlingford as a result of Visitor Activities**

### Impact Type

*Carlingford*



**Figure 1.15 Range of Environmental Impacts Observed at Carlingford**

The environmental impacts that were observed and recorded used the same coding system as the Wild Atlantic Way Monitoring<sup>6</sup>. 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.

<sup>6</sup> See Appendix I for more detail



**Figure 1.16 Visitor movement patterns at Carlingford**

Of the 38 groups recorded on site, down from 52 in 2021, 68% of them undertook activities other than walking, which is a reduction of 88% in 2021. These activities (identified above) resulted in 4 impacts, 11 in 2021, being observed on site during the survey. Thus, 13% of activities on site resulted in impacts on the environment, with 23% resulting in impacts on 2021. The impact severity levels varied with 50% of the impacts being low, 50% of impacts being moderate, an increase from 18% in 2021, and 0% of impacts being high severity. The impacts identified for the site were:

Impact Type	Count
Mild desire line	1
Noise	1
Other	1
Removal of natural materials (shells etc.)	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 Carlingford produced a number of changes from the 2021 Visitor Characterisation Survey. Noted changes include;

- A large decrease was noted between the number of impacts observed from 2022 when compared to 2021;
- A severe reduction in the percentage of visitors who drove to the site and opted instead to walk;
- Both a decrease in percentage of swimming related activities and stationary activities such as picnicking;
- Decrease in the percentage of visitors that read available signage; and,
- A reduction of visitors during the 8-hour survey by 38% to 111 visitors over 38 groups with dwell time reducing by 2%.

### Prevalence of Group Type 2021 vs 2022

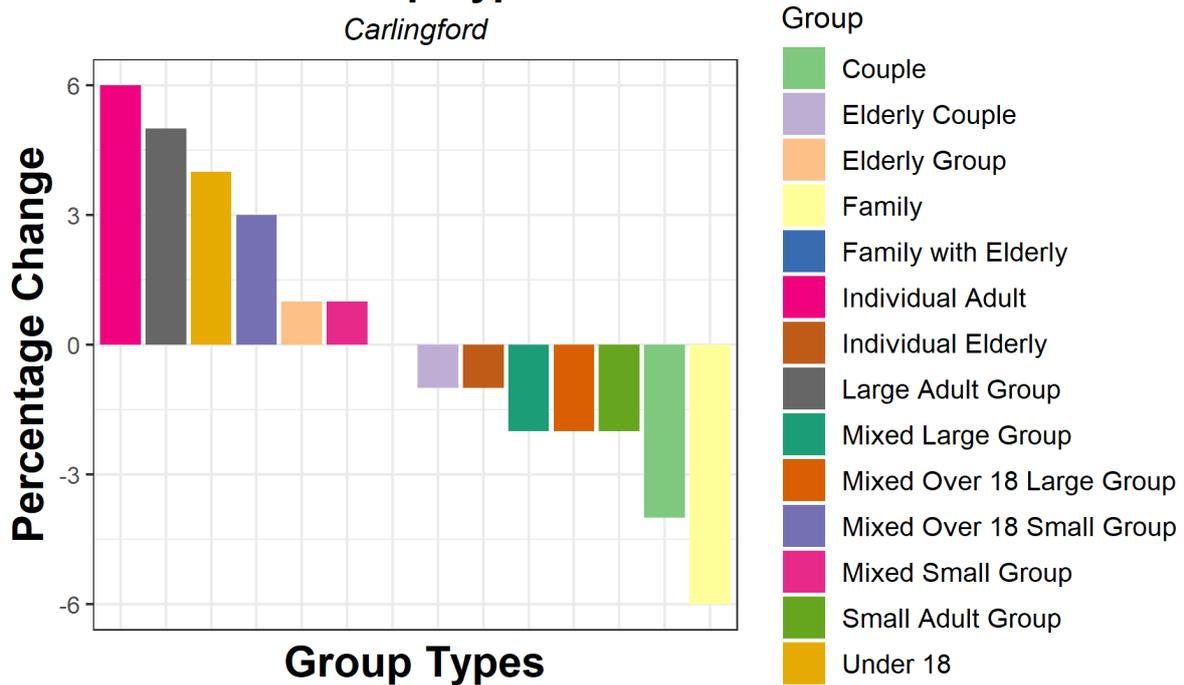


Figure 1.17 Percentage Change in groups of visitors that visited Carlingford between 2021 and 2022

### Prevalence of Transport Type 2021 vs 2022

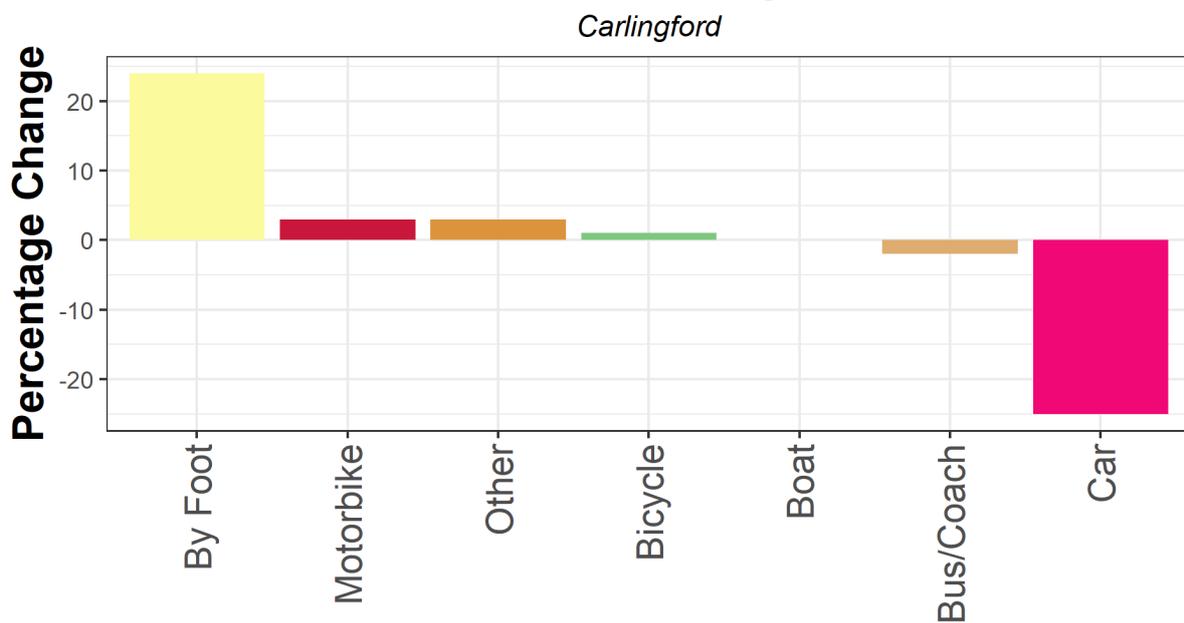
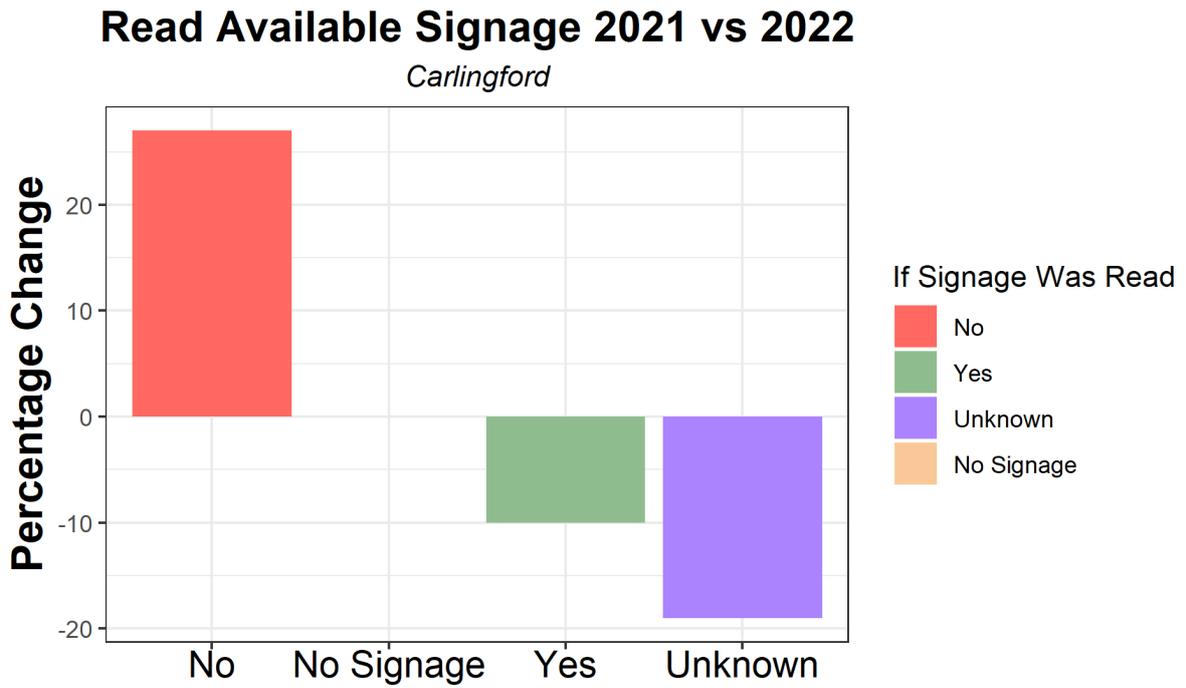
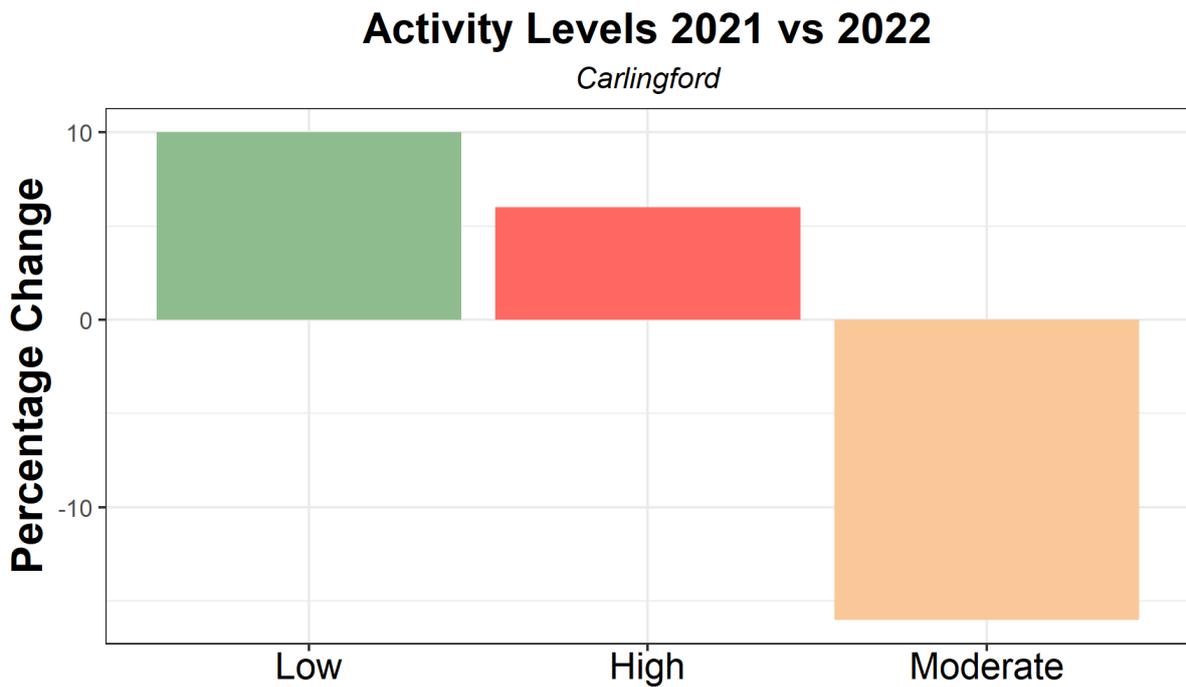


Figure 1.18 Percentage Change in mode of transport used to visit Carlingford between 2021 and 2022



**Figure 1.19** Percentage change in use of Interpretive Material at Carlingford between 2021 and 2022



**Figure 1.20** Percentage change in categories of Activity Levels Observed at Carlingford between 2021 and 2022

## Activity Undertaken Other Than Walking 2021 vs 2022

Carlingford

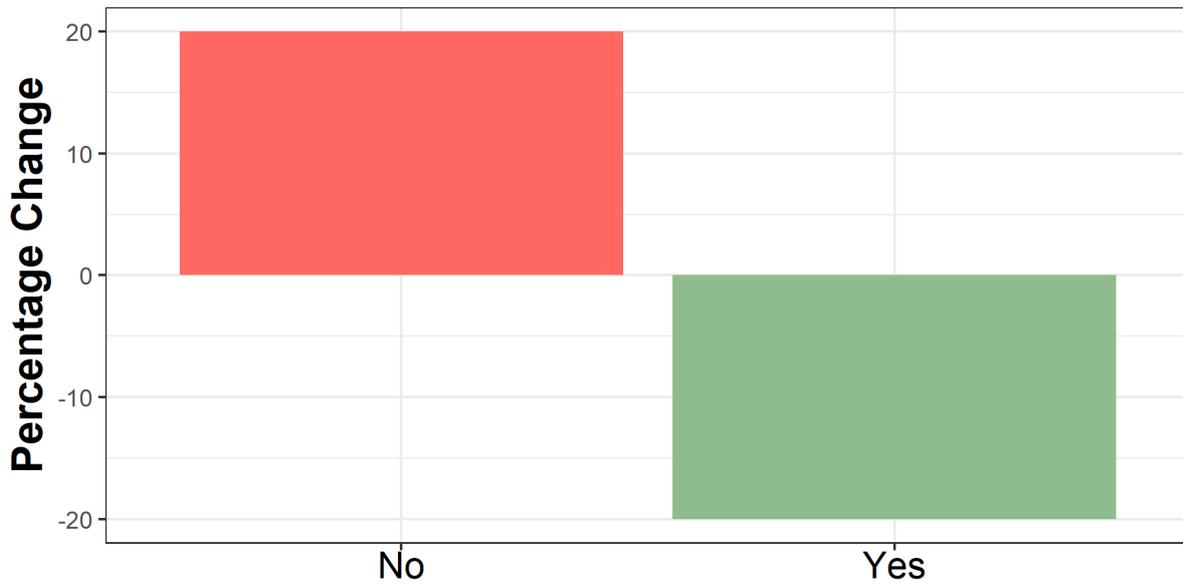


Figure 1.21 Percentage change in activities undertaken other than walking at Carlingford between 2021 and 2022

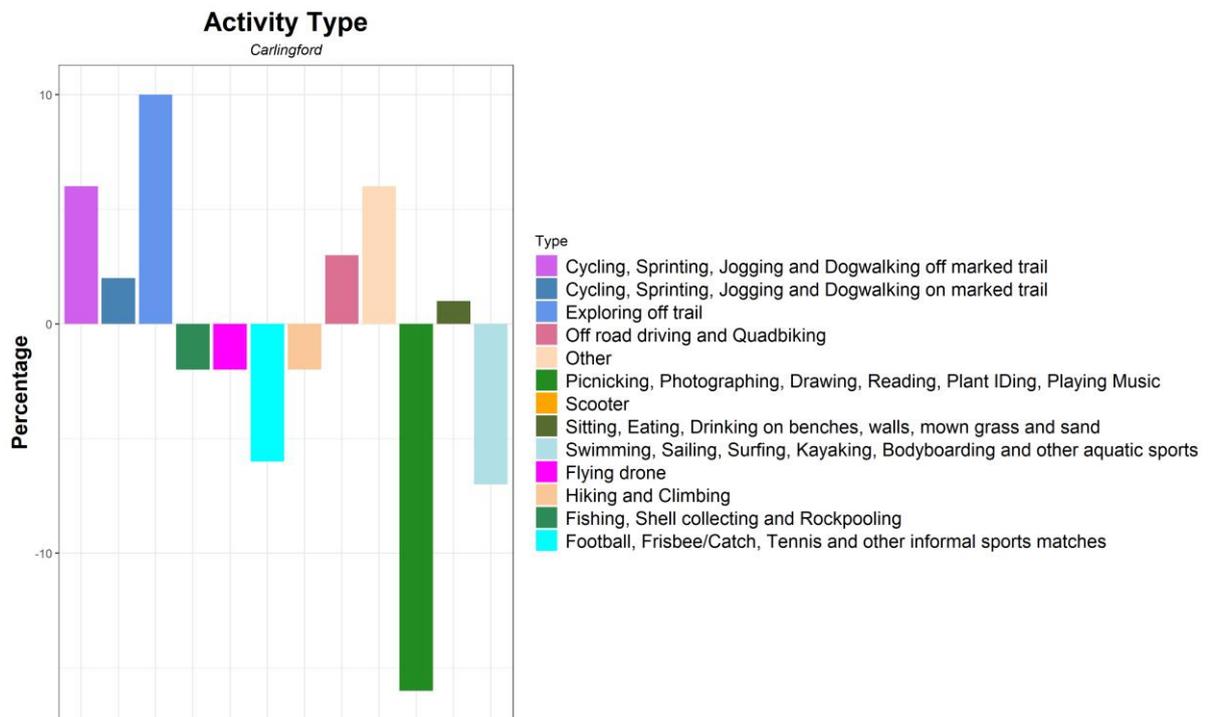
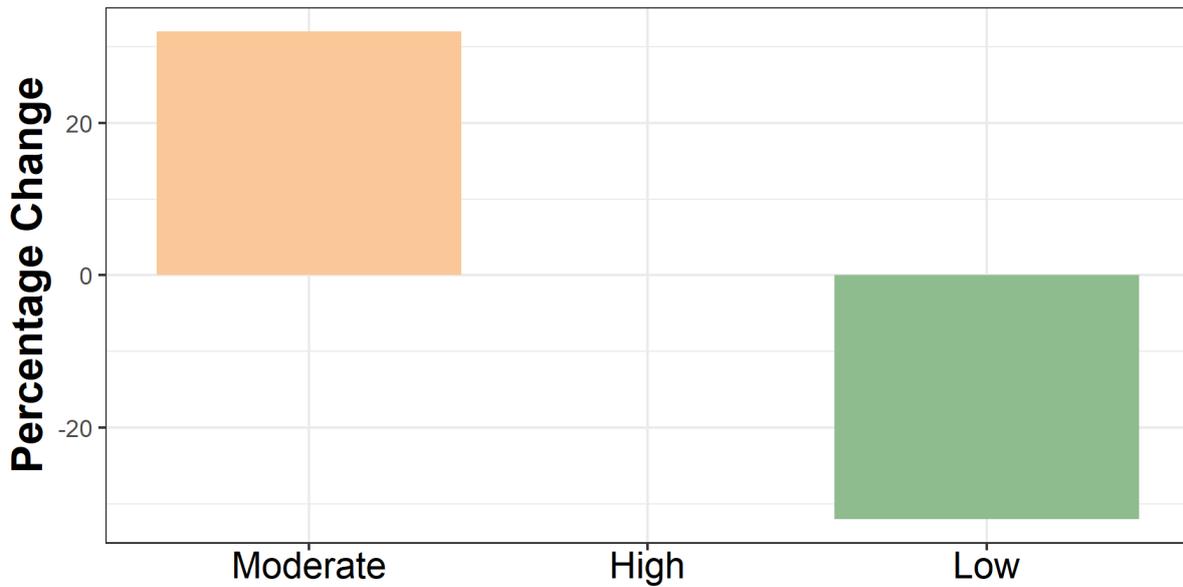


Figure 1.22 Percentage change in range of Visitor Activities Observed at Carlingford between 2021 and 2022

### Impact Severity Level 2021 vs 2022

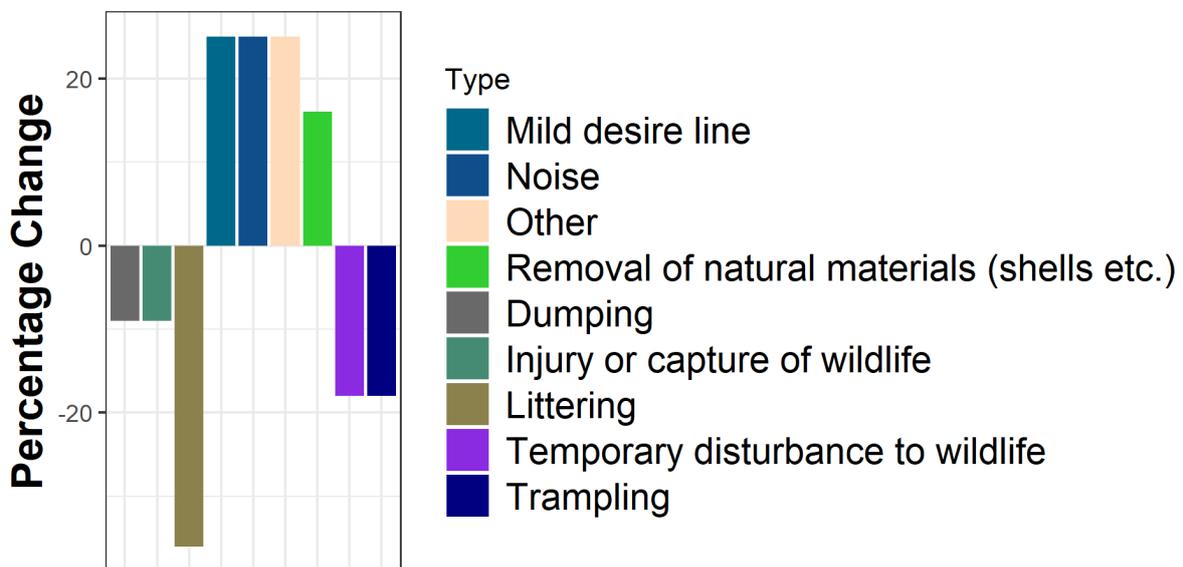
Carlingford



**Figure 1.23 Percentage change in categories of Environmental Impact Levels Observed at Carlingford as a result of Visitor Activities<sup>7</sup> between 2021 and 2022**

### Impact Type

Carlingford



**Figure 1.24 Percentage change in range of Environmental Impacts Observed at Carlingford between 2021 and 2022**

<sup>7</sup> Impact severity was measured as a categorical variable which has a range of impact factors that are pre-determined; such as injuring, killing or taking wildlife as a severe impact (high) and temporary disturbance of wildlife being a low impact. These are explained fully in the method section above.

**Table 1.4 Summary of changes with previous survey results**

Survey	Notable Differences	Comment
Visitor Dwell Time	<ul style="list-style-type: none"> <li>Overall dwell time reduced by 2%</li> </ul>	No significant changes observed
Prevalence of Group Type	<ul style="list-style-type: none"> <li>6% increase in individual adults</li> <li>6% decrease in families</li> </ul>	Slight changes in percentage of visitor group types could be attributed to the 2022 survey taking place later in the season
Prevalence of Transport Type	<ul style="list-style-type: none"> <li>24% increase by foot</li> <li>25% decrease by car</li> </ul>	Large increase in percentage of visitors arriving by foot and thus large decrease in percentage of visitors arriving by car
Read Available Signage	<ul style="list-style-type: none"> <li>Signage not read increased by 27%</li> <li>10% decrease in signage read</li> <li>Unknown increased by 19%</li> </ul>	Significant increase in percentage of visitors that did not read available signage
Activity Levels	<ul style="list-style-type: none"> <li>High activity levels saw no change</li> <li>Low activity levels decreased by 7%</li> <li>Moderate activity levels decreased by 16%</li> </ul>	No significant changes observed
Activity Undertaken Other Than Walking	<ul style="list-style-type: none"> <li>Activities undertaken other than walking decreased by 20%</li> <li>Activities undertaken other than walking increased by 20%</li> </ul>	Significant decrease in percentage of activities undertaken other than walking
Activity Type	<ul style="list-style-type: none"> <li>7% decrease in swimming etc.</li> <li>16% decrease in picnicking etc.</li> <li>10% increase in exploring off trail</li> </ul>	Decrease in percentage of swimming and aquatic related activities may be attributed to the survey taking place later in the season  Moderate decrease in percentage of stationary activities such as picnicking
Impact Severity Level	<ul style="list-style-type: none"> <li>No change in high impact level</li> <li>Low impact level decreased by 32%</li> <li>Moderate impact level increased by 32%</li> </ul>	Large increase in percentage of moderate impacts. This is due to lower numbers of impacts being recorded during 2022
Impact Type	<ul style="list-style-type: none"> <li>35% decrease in littering</li> <li>25% increase in mild desire lines</li> <li>25% increase in noise</li> <li>18% decrease in trampling</li> <li>18% decrease in temporary disturbance to wildlife</li> </ul>	Lower number of impacts were recorded during 2022, therefore changes in impact type aren't reflective

## 1.7 Ecological Monitoring Results

### 1.7.1 Ecological Constraints

The species within Carlingford are sensitive to pollution, disturbance effects and invasive species. While habitats are sensitive to land management changes, anthropogenic disturbance, overgrazing, pollution and hydrological changes.

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

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[000452]	Carlingford Lough pNHA	0.01	pNHA	
[002306]	Carlingford Shore SAC	0.01	SAC	Perennial vegetation of stony banks [1220], Annual vegetation of drift lines [1210]
[004078]	Carlingford Lough SPA	0.33	SPA	Wetland and Waterbirds [A999], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]

Site Code	Site Name	Distance (km)	Site Type	Qualifying Feature
[000453]	Carlingford Mountain pNHA	0.86	pNHA	
[000453]	Carlingford Mountain SAC	0.86	SAC	Transition mires and quaking bogs [7140], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) [8110], Alpine and Boreal heaths [4060], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Blanket bogs * if active bog [7130], European dry heaths [4030], Calcareous rocky slopes with chasmophytic vegetation [8210], Alkaline fens [7230]

### 1.7.2 Habitat Descriptions

As Carlingford is an urban area, a lot of the habitat in the area is buildings and artificial surfaces (Fossitt Code BL3) with patches of amenity grassland (Fossitt Code GA2). As Carlingford lough is situated in the area, the shore of Carlingford is made up of shore habitats like single and gravel shores (Fossitt Code LS1) and mixed substrata shores (Fossitt Code LR4), which makes up the majority of the shoreline habitat (Figure 1.25).

Visitor movement patterns were restricted to hard infrastructure areas around the town and its marine edge. The harbour itself had vessel movement within and, birds were observed using the harbour for foraging.

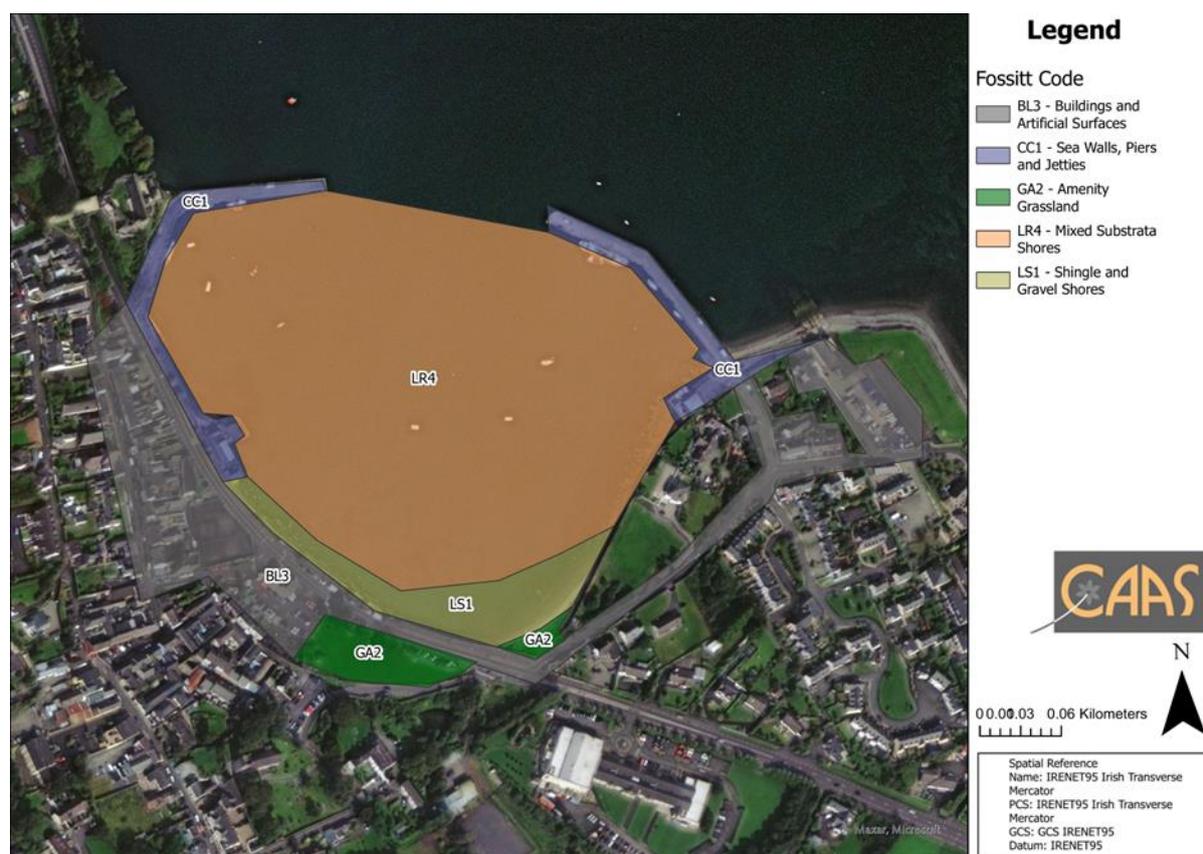


Figure 1.25 Habitats present at Carlingford

### 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 Birds

Given the location of Carlingford and its coastal habitats, the NBDC (National Biodiversity Data Centre) data shows that there a large number of species such as curlew, gulls and grebes. Brent Geese, for which Carlingford Lough SPA is designated, were also recorded. High numbers of passerines such as chaffinches and blue tits have also been recorded along with also high numbers of birds of prey such as buzzards and kestrels.

**Table 1.6 List of birds that have been recorded at NBDC Hectad<sup>8</sup> J11**

Group	Common name	Scientific name	Number Recorded
Bird	Bar-tailed Godwit	<i>Limosa lapponica</i>	3
Bird	Barn Owl	<i>Tyto alba</i>	1
Bird	Barn Swallow	<i>Hirundo rustica</i>	15
Bird	Black-billed Magpie	<i>Pica pica</i>	21
Bird	Black-headed Gull	<i>Larus ridibundus</i>	21
Bird	Black-legged Kittiwake	<i>Rissa tridactyla</i>	1
Bird	Black-tailed Godwit	<i>Limosa limosa</i>	5
Bird	Black Brant	<i>Branta bernicla subsp. nigricans</i>	6
Bird	Black Guillemot	<i>Cepphus grylle</i>	10
Bird	Blackcap	<i>Sylvia atricapilla</i>	14
Bird	Blue Tit	<i>Cyanistes caeruleus</i>	18
Bird	Brambling	<i>Fringilla montifringilla</i>	3
Bird	Branta bernicla subsp. hrota	<i>Branta bernicla subsp. hrota</i>	6
Bird	Brent Goose	<i>Branta bernicla</i>	12
Bird	Carrion Crow	<i>Corvus corone</i>	5
Bird	Chaffinch	<i>Fringilla coelebs</i>	23
Bird	Coal Tit	<i>Parus ater</i>	15
Bird	Common Blackbird	<i>Turdus merula</i>	28
Bird	Common Bullfinch	<i>Pyrrhula pyrrhula</i>	17
Bird	Common Buzzard	<i>Buteo buteo</i>	22
Bird	Common Chiffchaff	<i>Phylloscopus collybita</i>	16
Bird	Common Coot	<i>Fulica atra</i>	1
Bird	Common Crossbill	<i>Loxia curvirostra</i>	3
Bird	Common Cuckoo	<i>Cuculus canorus</i>	9
Bird	Common Goldeneye	<i>Bucephala clangula</i>	5
Bird	Common Grasshopper Warbler	<i>Locustella naevia</i>	2
Bird	Common Greenshank	<i>Tringa nebularia</i>	5
Bird	Common Guillemot	<i>Uria aalge</i>	3
Bird	Common Kestrel	<i>Falco tinnunculus</i>	17
Bird	Common Kingfisher	<i>Alcedo atthis</i>	4
Bird	Common Linnet	<i>Carduelis cannabina</i>	13
Bird	Common Moorhen	<i>Gallinula chloropus</i>	4
Bird	Common Pheasant	<i>Phasianus colchicus</i>	5
Bird	Common Pochard	<i>Aythya ferina</i>	1

<sup>8</sup> 10km<sup>2</sup> grid

Group	Common name	Scientific name	Number Recorded
Bird	Common Raven	<i>Corvus corax</i>	19
Bird	Common Redshank	<i>Tringa totanus</i>	15
Bird	Common Shelduck	<i>Tadorna tadorna</i>	15
Bird	Common Snipe	<i>Gallinago gallinago</i>	8
Bird	Common Starling	<i>Sturnus vulgaris</i>	19
Bird	Common Swift	<i>Apus apus</i>	18
Bird	Common Tern	<i>Sterna hirundo</i>	2
Bird	Common Whitethroat	<i>Sylvia communis</i>	8
Bird	Common Wood Pigeon	<i>Columba palumbus</i>	20
Bird	Corn Crane	<i>Crex crex</i>	1
Bird	Dunlin	<i>Calidris alpina</i>	8
Bird	Eurasian Collared Dove	<i>Streptopelia decaocto</i>	13
Bird	Eurasian Curlew	<i>Numenius arquata</i>	21
Bird	Eurasian Jackdaw	<i>Corvus monedula</i>	20
Bird	Eurasian Jay	<i>Garrulus glandarius</i>	16
Bird	Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	17
Bird	Eurasian Siskin	<i>Carduelis spinus</i>	11
Bird	Eurasian Sparrowhawk	<i>Accipiter nisus</i>	11
Bird	Eurasian Teal	<i>Anas crecca</i>	7
Bird	Eurasian Tree Sparrow	<i>Passer montanus</i>	1
Bird	Eurasian Treecreeper	<i>Certhia familiaris</i>	7
Bird	Eurasian Wigeon	<i>Anas penelope</i>	5
Bird	Eurasian Woodcock	<i>Scolopax rusticola</i>	2
Bird	European Golden Plover	<i>Pluvialis apricaria</i>	4
Bird	European Goldfinch	<i>Carduelis carduelis</i>	11
Bird	European Greenfinch	<i>Carduelis chloris</i>	12
Bird	European Nightjar	<i>Caprimulgus europaeus</i>	1
Bird	European Robin	<i>Erithacus rubecula</i>	22
Bird	European Shag	<i>Phalacrocorax aristotelis</i>	3
Bird	European Turtle Dove	<i>Streptopelia turtur</i>	1
Bird	Fieldfare	<i>Turdus pilaris</i>	3
Bird	Firecrest	<i>Regulus ignicapilla</i>	1
Bird	Garden Warbler	<i>Sylvia borin</i>	1
Bird	Goldcrest	<i>Regulus regulus</i>	14
Bird	Great Black-backed Gull	<i>Larus marinus</i>	9
Bird	Great Cormorant	<i>Phalacrocorax carbo</i>	18
Bird	Great Crested Grebe	<i>Podiceps cristatus</i>	10
Bird	Great Northern Diver	<i>Gavia immer</i>	2
Bird	Great Spotted Woodpecker	<i>Dendrocopos major</i>	5
Bird	Great Tit	<i>Parus major</i>	13
Bird	Greater Scaup	<i>Aythya marila</i>	7
Bird	Grey Heron	<i>Ardea cinerea</i>	19
Bird	Grey Partridge	<i>Perdix perdix</i>	1
Bird	Grey Plover	<i>Pluvialis squatarola</i>	1
Bird	Grey Wagtail	<i>Motacilla cinerea</i>	15
Bird	Hedge Accentor	<i>Prunella modularis</i>	13
Bird	Hen Harrier	<i>Circus cyaneus</i>	1
Bird	Herring Gull	<i>Larus argentatus</i>	14
Bird	Hooded Crow	<i>Corvus cornix</i>	27
Bird	House Martin	<i>Delichon urbicum</i>	12
Bird	House Sparrow	<i>Passer domesticus</i>	16
Bird	Iceland Gull	<i>Larus glaucoides</i>	1
Bird	Jack Snipe	<i>Lymnocyptes minimus</i>	1
Bird	Lesser Black-backed Gull	<i>Larus fuscus</i>	1
Bird	Lesser Redpoll	<i>Carduelis cabaret</i>	10
Bird	Little Egret	<i>Egretta garzetta</i>	8
Bird	Little Grebe	<i>Tachybaptus ruficollis</i>	7
Bird	Long-eared Owl	<i>Asio otus</i>	2
Bird	Long-tailed Duck	<i>Clangula hyemalis</i>	3
Bird	Long-tailed Tit	<i>Aegithalos caudatus</i>	11
Bird	Mallard	<i>Anas platyrhynchos</i>	11
Bird	Meadow Pipit	<i>Anthus pratensis</i>	18
Bird	Mew Gull	<i>Larus canus</i>	16
Bird	Mistle Thrush	<i>Turdus viscivorus</i>	20
Bird	Mute Swan	<i>Cygnus olor</i>	2
Bird	Northern Fulmar	<i>Fulmarus glacialis</i>	4
Bird	Northern Lapwing	<i>Vanellus vanellus</i>	9
Bird	Northern Wheatear	<i>Oenanthe oenanthe</i>	17

Group	Common name	Scientific name	Number Recorded
Bird	Peregrine Falcon	<i>Falco peregrinus</i>	2
Bird	Pied Wagtail	<i>Motacilla alba subsp. yarrellii</i>	5
Bird	Razorbill	<i>Alca torda</i>	3
Bird	Red-backed Shrike	<i>Lanius collurio</i>	1
Bird	Red-breasted Merganser	<i>Mergus serrator</i>	13
Bird	Red-necked Grebe	<i>Podiceps grisegena</i>	2
Bird	Red-throated Diver	<i>Gavia stellata</i>	2
Bird	Red Grouse	<i>Lagopus lagopus</i>	1
Bird	Red Knot	<i>Calidris canutus</i>	3
Bird	Redwing	<i>Turdus iliacus</i>	7
Bird	Reed Bunting	<i>Emberiza schoeniclus</i>	9
Bird	Richard's Pipit	<i>Anthus richardi</i>	1
Bird	Ringed Plover	<i>Charadrius hiaticula</i>	7
Bird	Rock Pigeon	<i>Columba livia</i>	8
Bird	Rock Pipit	<i>Anthus petrosus</i>	8
Bird	Rook	<i>Corvus frugilegus</i>	19
Bird	Ruddy Turnstone	<i>Arenaria interpres</i>	11
Bird	Sand Martin	<i>Riparia riparia</i>	1
Bird	Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	1
Bird	Short-eared Owl	<i>Asio flammeus</i>	1
Bird	Sky Lark	<i>Alauda arvensis</i>	15
Bird	Slavonian Grebe	<i>Podiceps auritus</i>	1
Bird	Song Thrush	<i>Turdus philomelos</i>	21
Bird	Spotted Flycatcher	<i>Muscicapa striata</i>	7
Bird	Stock Pigeon	<i>Columba oenas</i>	3
Bird	Stonechat	<i>Saxicola torquata</i>	10
Bird	Surf Scoter	<i>Melanitta perspicillata</i>	2
Bird	Tufted Duck	<i>Aythya fuligula</i>	1
Bird	Twite	<i>Carduelis flavirostris</i>	3
Bird	Water Rail	<i>Rallus aquaticus</i>	1
Bird	White-throated Dipper	<i>Cinclus cinclus</i>	10
Bird	White Wagtail	<i>Motacilla alba</i>	16
Bird	Whooper Swan	<i>Cygnus cygnus</i>	3
Bird	Willow Warbler	<i>Phylloscopus trochilus</i>	15
Bird	Winter Wren	<i>Troglodytes troglodytes</i>	20
Bird	Yellowhammer	<i>Emberiza citrinella</i>	5

## 1.8 Recommendations

While dumping and littering was not observed during the 2022 survey, they still remain as an impact that effects Carlingford. As with the 2021 report, the litter management processes for Carlingford should be reviewed.

The nature and wildlife signage in the area should be updated to give a broader ecological and environmental context on not just the abundant bird species that are found on site. Landscaping could also be employed to help promote pollination and invertebrate resources in the parklands in the area.

## Appendix I

<b>Activities</b>		
<b>Category 1 Low Level</b>		
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
<b>Category 2 Medium Level</b>		
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
<b>Category 3 High Level</b>		
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

<b>Category 1 Low Impact</b>		
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
<b>Category 2 Medium Impact</b>		
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
<b>Category 3 Severe Impact</b>		
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<sup>9</sup>. 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.

<sup>9</sup> 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.