

Cill Ulta Townland Community Biodiversity Action Plan 2022-2027



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**The Community
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SUMMARY

The study area of Killult townland resulted in first records of **247 species** submitted to NBDC. This is a modest start to biodiversity recording in the area but provides a very significant increase in records within the townland area. The background level of **biodiversity recording was very limited** in the area and the NBDC dataset contained relatively few records prior to this study.

Habitat mapping was carried out across c. 780ha of the townland and an extension of land out to coastal/inter-tidal habitats. The habitat mapping focussed on identifying any areas of semi-natural habitat and did not focus on hedgerows. Hedgerows in the area were found to be of relatively low biodiversity and ecological value compared to other areas of Ireland where woodland cover and the linkage to it is more significant. In general the habitats of greatest importance in this area are the coastal habitats and the river corridor.

Community consultation was carried out via an online survey and resulted in returns indicating a background general appreciation of biodiversity in the area but with indications that engagement with it was relatively low.

The *Cill Ulta* lands were selected for greater focus (Plan Focus Area) and **actions were generated under three objectives.**

Objective 1 Contribute to biodiversity protection and enhancement by managing *Cill Ulta* lands for priority species

- | | |
|------------|---|
| Action 1.1 | Maintain a cropping regime within <i>Cill Ulta</i> land which is compatible with biodiversity interest <ul style="list-style-type: none">• Seed crops for wintering birds• Pollinator-friendly crops• Suitable weed control regime to support wildlife• Provision of suitable cover for Corncrakes (see Objective 3) |
| Action 1.2 | Devise a specific pollinator plan for the lands & maintain in conjunction with All-Ireland Pollinator plan |
| Action 1.3 | Devise a woodland management plan to promote woodland biodiversity (consider potential application for Native Woodland Grant Scheme) |
| Action 1.4 | Create a wildlife pond (also for use in awareness raising) –Plan pond with ecologist & source funding |
| Action 1.5 | Nest box provision within <i>Cill Ulta</i> land to target priority bird species notably: Swallow, House Sparrow, Starling, Grey Wagtail, Barn Owl, Kestrel |
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Objective 2 Contribute to wider townland biodiversity enhancement by raising awareness and knowledge of local biodiversity

- | | |
|------------|---|
| Action 2.1 | Develop sites at <i>Cill Ulta</i> for viewing of the wildlife of the site and of Ballyness Bay through a walking route and creation of lookout points with interpretation |
| Action 2.2 | Develop an annual biodiversity events & training programme including a Community Bio-blitz |
| Action 2.3 | Wildlife pond & pond dipping platform & educational materials developed |
| Action 2.4 | Consider options around development of <i>Cill Ulta</i> as a biodiversity learning centre or similar initiative in conjunction with complementary projects |
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Objective 3 Contribute positively to maintaining and enhancing the conservation condition of Ballyness Bay SAC and Falcarragh to Meenlaragh SPA by sensitive and targeted management of *Cill Ulta* lands.

- Action 3.1 Determine extent and boundaries of *Cill Ula* lands in relation to SAC by on site meeting with NPWS
- Action 3.2 Hold discussion meeting about potential management options subject to outcome of action 3.1
- Action 3.3 Maintain corncrake early cover and other habitat on *Cill Ula* fields by engagement with any extant NPWS Corncrake scheme
- Action 3.4 Plot all calling Corncrake registrations on database
- Action 3.5 Carry out Corncrake habitat condition assessment

These actions involve relatively limited funding and can potentially be delivered alongside other projects by personnel associated with the *Cill Ula* enterprise.

Two additional actions were identified of value for the wider area which tackle the issues of the widespread invasive species and the potential benefits of increased community engagement

Additional action A. Carry out a full survey of invasive species in conjunction with suitable stakeholders

Additional action B. Biodiversity & social media activity – create an area based biodiversity social media feed or feeds on e.g. Facebook and Instagram

1. INFORMATION AND DESCRIPTION

1.1 Introduction & general information

Cill Ulta is a townland in the Gaeltacht of County Donegal, located on the northern coastline between An Fál Carrach (Falcarragh) and Machaire Rabhartaigh (Magheroarty). It includes part of Bá Bhaile an Easa (Ballyness Bay - including the Ballyness Bay SAC¹), is located along the Wild Atlantic Way and is in the Falcarragh to Meenlaragh SPA² which is designated for its Corncrake population.

This community BAP³ is led by LAN (Lárionad Acmhainní Nádúrtha - LAN Ctr) which now operates as “Cill Ulta”. This is a centre for sustainability which promotes food sovereignty, sustainable energies, farm-to-fork research, Irish agricultural heritage and craft, biodiversity and the Irish language.

The *Cill Ulta* enterprise is located at the site of “The Glasshouses”. This was a commercial horticultural venture which was abandoned in the 1970s following oil price rises causing the enterprise to be no longer profitable. Over the years, various community groups have worked to preserve as much of the structure as possible and one acre of glasshouses remain with the rest of the site having been classified as industrial wasteland. In the late 1990’s, LAN, a non-profit with charitable status, was formed to use and revive the site. Since then, the industrial waste has slowly been cleaned and converted to useable growing land and now includes 9 production poly-tunnels, the original 1 acre of glasshouse, an apiary, and multiple production fields.

The *Cill Ulta* enterprise now focusses on sustainable horticultural production alongside community enterprise and environmental sustainability. The site sits in a strategic position which allows good interaction with its environment.

Cill Ulta is increasingly providing leadership regarding biodiversity and this Community Biodiversity Action Plan is a first step in creating a framework for the area through which biodiversity actions can be delivered.



Figure 1 Polytunnels for horticulture, part of the social enterprise at Cill Ulta (Image courtesy Cill Ulta)

1.2 Site location, land-use and habitat overview

The plan study area is the townland of Cill Ulta with a small extension out into Ballyness Bay and including a small adjacent island – these are included for ecological completeness as they form a clear component of the ecological character of the area. The whole study area extends to approximately 780 Ha. (Figure 2). The main habitats present in the area are agricultural, predominantly improved or semi-improved grassland. There is wet heath habitat where the site reaches its highest point and the eastern fringe of the townland is bounded by the Tullaghobegly River, flowing northwards and entering Ballyness Bay. The river and its floodplain add a significant range of habitats and the whole

¹ Special Area of Conservation <https://www.npws.ie/protected-sites/sac>

² Special Protection Area - <https://www.npws.ie/protected-sites/spa>

³ Biodiversity Action Plan

peninsula is bounded by the intertidal and coastal habitats of Ballyness Bay. There is relatively little woodland and where it exists is largely low growing and scrubby, is riparian woodland along the river corridor or is mixed planted woodland with a significant non-native element. Field boundaries are a combination of fences, earth banks/walls and relatively few and relatively poorly developed hedgerows and treelines.



Figure 2 Site location and extent

The whole area is heavily interspersed with residential property with garden grounds and associated land as well as roads and tracks, farmyards and similar hard standing. Around 197 Ha. (25%) of the area is excluded from consideration in the plan as it relates to these areas.



The Glasshouses and associated horticultural and arable land, the location of the *Cill Ulta* social enterprise, covers a large area of the peninsula in the north of the site. It provides a focus for this plan and its cultivated land and the surrounding semi natural habitats provide an ideal opportunity for enhancement of biodiversity in an area that is accessible and is promoted to the community as a resource.

Figure 3 Organically grown Garlic in fields at Killult - weedy arable fields attract declining farmland birds and important pollinating invertebrates



Figure 4 A view north from the southern boundary up the Tullaghobegly valley - the improved/semi-improved pasture, wet grassland and scrub and domestic dwellings can be seen



Figure 5 Saltmarsh habitats and a view south to scrub woodland and pasture - Remnant natural coastal habitats remain on the site fringes, looking back from the northern edge of the area the extensive dwelling pattern and low growing woodland and scrub is obvious.

Figures 3 to 5 illustrate the general ecological and land-use character of the area.

Figure 6 below characterises the area into broad ecological and land-use types (which will be known here as biodiversity zones) and identifies the extent of the detailed plan focus area encompassing the “Community horticulture” zone.

These zones are derived from field survey and assessment of the primary areas of biodiversity interest taking into consideration existing biodiversity interest, opportunities that may exist for developing biodiversity awareness or enhancement (subject to further consultation with landowners or other stakeholders as may be appropriate).

The three zones are notable:

- A. Community horticulture** – the area of horticultural/arable land and associated surrounding habitats such as scrub and waste ground that are the basis for the *Cill Ula* operation. This forms an area of relatively promoted access and provides a clear opportunity for biodiversity enhancement alongside a range of valuable native coastal habitats in particular. (see figure 3 & 9).
- B. Riparian wetlands** – the area of low-lying wet grasslands and other wetland communities and scrub and the riparian habitats of the Tullaghobegly River itself. (see figure 4 & 8).
- C. Coastlands** – the intertidal lands and semi-natural grasslands bordering intertidal land. This includes areas of saltmarsh, fixed dune grassland and semi-improved grasslands with characteristics of machair grassland (see figure 5 & 7).

All of these areas offer biodiversity value and a range of opportunities which could be developed for biodiversity enhancement and community involvement however **this plan relates primarily to Zone A** and develops site-specific actions within that area. This area has a community enterprise which includes sustainability at its core and is a publicly accessible area and a willingness for continued engagement in biodiversity initiatives.

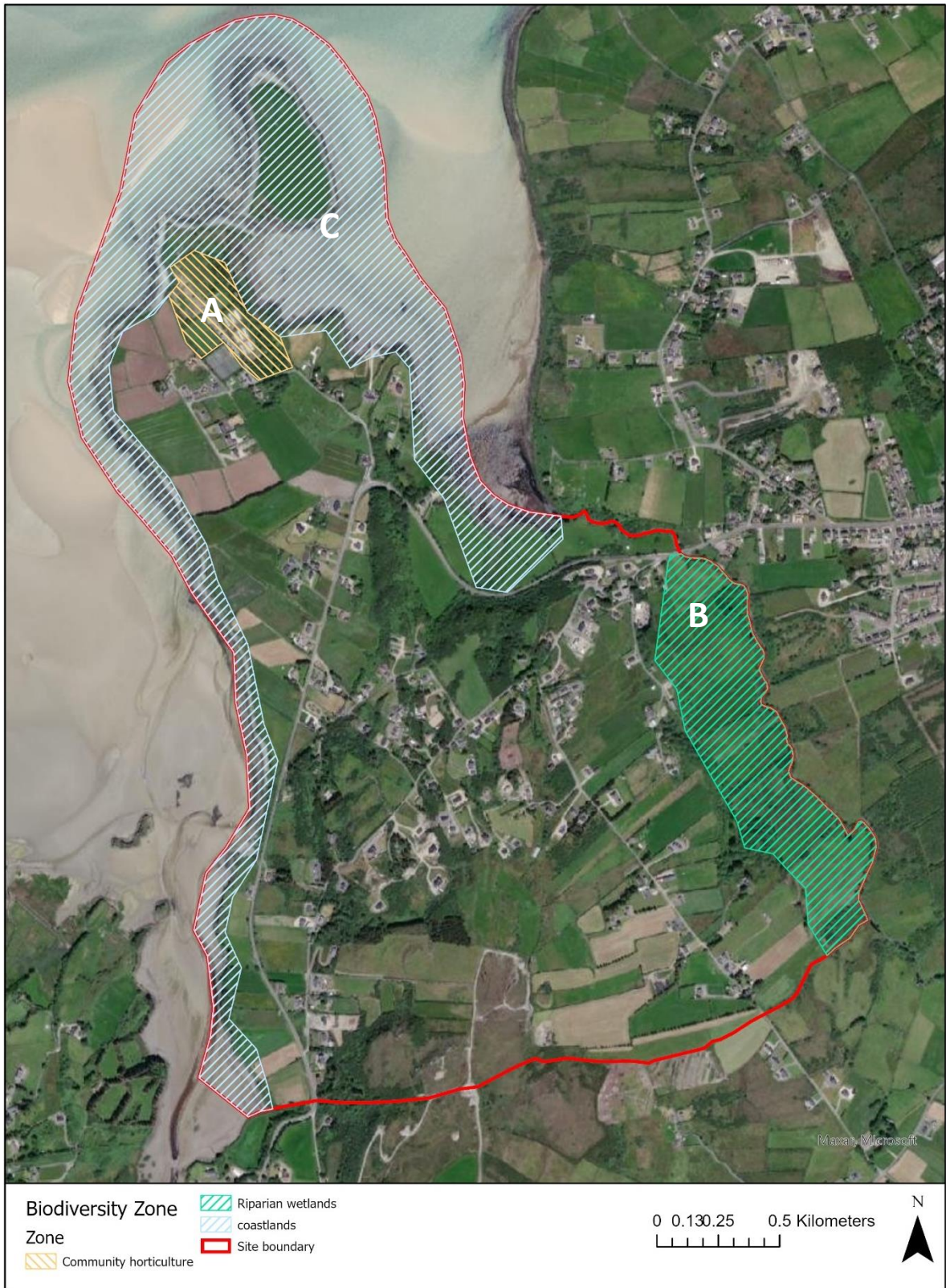


Figure 6 Biodiversity zones - main zones of interest for biodiversity within the study area



Figure 7 Coastlands Zone - Saltmarsh vegetation is present on much of the coastal edge and forms a feature of the Ballyness Bay SAC – Sea Aster in flower along with saltmarsh grasses and Sea Plantain



Figure 8 Tullaghobegly River (Riparian Wetlands Zone) - this forms the eastern boundary of the townland but is also an important ecological corridor and its valley contains low lying wetland areas, mainly wet grassland and pockets of marsh. The riverbanks are infested in places with Invasive alien plant species, notably Himalayan Balsam, along much of its length.



Figure 9 Surveying pollinators in the Community Horticulture Zone - the Cill Ulta land grows a range of crops in a sustainable and biodiversity-friendly way and the fields are rich in clover and other plants which are rich habitats for pollinators though in places there are invasive alien plant species. The nettle beds form early cover and provide the most reliable site for Corncrake within the An Fál Carrach to Meenlaragh SPA.

2. AIMS

The aims of this plan are:

1. To identify the main biodiversity resource that exists across the study area and collate existing information on presence and extent of semi-natural habitats and priority species or species groups
2. To identify priority actions for biodiversity enhancement within the *Cill Ulta* community horticulture area (zone A) and any complementary actions elsewhere
3. Identify opportunities for community involvement and awareness raising of biodiversity

Given the limited resources of the project and the relatively large extent of the plan area it is not feasible to carry out a comprehensive species and habitat survey but rather to focus on preliminary findings and recommended actions and focus on the highest priorities.

This is a potentially effective approach given the apparently relatively low level of engagement in specific biodiversity initiatives in the area, the relatively modest volume of existing records and the cross linkages to local Natura sites and their special interest being of primary importance.



Figure 10 Horticultural fields and nearby coastlands form the focus of biodiversity opportunity within the area

With the emerging Covid 19 situation the project was significantly disrupted and the original plan to include a “Bithblitz pobail” (Community BioBlitz) and workshop was replaced by running a community biodiversity awareness questionnaire and running in parallel, with alternative funding, a series of online (and one outdoor) community biodiversity training events.

3. CONSULTATION & LINKAGES

Due to Covid 19 restrictions community consultation was carried out via an online Biodiversity Awareness Survey (see appendix 1) run during 2020-2021.

Results of these are described in this section and give an indication of the level of current engagement and awareness of biodiversity.

An online questionnaire prepared by the consultant was circulated by *Cill Ulta* staff to community groups and contacts both within the townland and to communities neighbouring. This included circulation on social media, through direct emails, distribution of flyers to all households in the townland and through community groups.

The survey results are provided in Appendix 1. These focus on the awareness and attitudes towards biodiversity and provides a baseline measure of existing levels of interest amongst the community as well as which issues, in broad terms, are seen as being most important by the community.

Twenty individuals responded between December 2020 and July 2021 with most responses in the first month. While this was a modest response, it is a relatively small community with a relatively high incidence of second home ownership. However, the low level of response may indicate a general lack of awareness or interest in biodiversity, despite responses showing regular engagement with the outdoors.

While there was a strong recognition of the importance of biodiversity there was an apparently limited awareness of issues around it despite relatively high levels of appreciation of it through regular outdoor activities. It was notable that respondents were somewhat polarised in their views as to how well it was protected in the local area and what the main issues were. Again, awareness raising and meaningful engagement would enable better community engagement and a positive outcome for biodiversity.

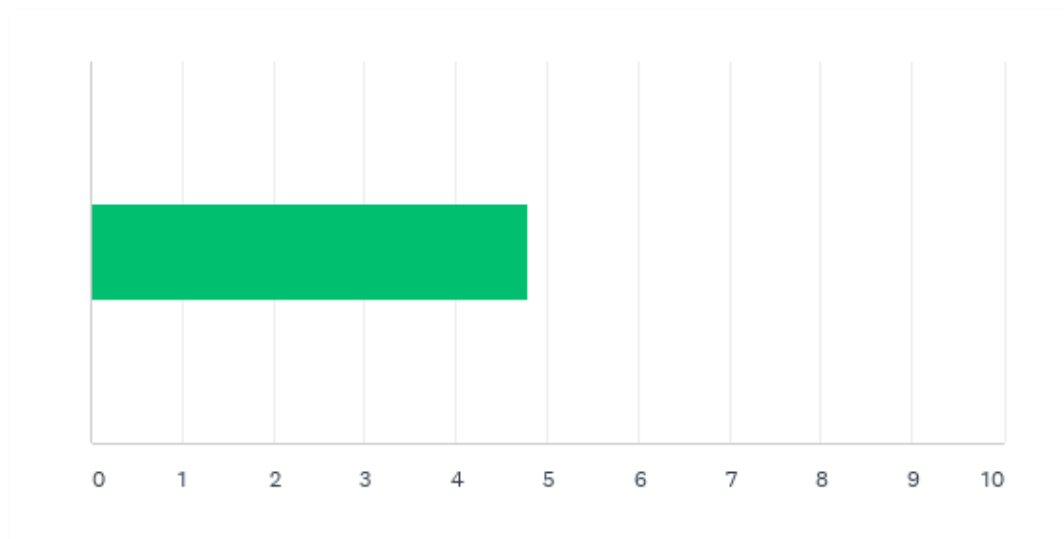


Figure 11 the average response to question 4 of the survey “Please indicate on this scale (using the slider) how well informed you feel about biodiversity loss in your local area. *Léirigh, le do thoil, ar an scála (úsáid an sleamhnáin) cé chomh eolach is atá tú fá mheath na bithéagsúlachta i do cheantarEolach*” – this indicates that awareness raising initiatives would be of value in engendering greater support for biodiversity.

Overall, the promotion of awareness initiatives amongst the community could be of high value in engendering support for and participation in, biodiversity initiatives. Without this it is likely that

biodiversity initiatives could well be very limited in their scope and effectiveness and as such awareness raising and engagement should be a priority in the initial years of implantation of the plan.

As there is already regular interaction between Cill Ulta staff and the board members of the associated EIP project (Cúlra Créafóige EIP) with landowners and the wider community and with NPWS regional staff, consultation with other stakeholders was limited to on-site outdoor discussions with *Cill Ulta* staff and the board members of the Cúlra Créafóige EIP project⁴. Particularly given the relatively restricted conditions under Covid-19 rules.

These added some informal views and opinions on the potential resource and also the potential actions which may be relevant. Knowledge of NPWS corncrake management scheme, through direct involvement, also informed the plan.

Wider consultation would be required in the implementation phase for any actions which may be recommended outside of the main *Cill Ulta* lands.

Running in parallel, a complementary project to provide biodiversity training events, online, for participants of the Cúlra Créafóige EIP project was carried out although uptake was modest and predominantly by those living outside the study area. This again supports the finding that awareness raising and engagement in biodiversity matters should be a future priority.

4. IDENTIFYING THE BIODIVERSITY RESOURCE

4.1 Desktop study

A range of datasets were accessed to contribute records which help to characterise the biodiversity resource of the area and inform the analysis in section 5. These are listed in Appendix 2 and include datasets from the National Biodiversity Data Centre, designated site information from NPWS and a range of other sources.

4.1.1 Scope and significance

The initial data search generally produced a good suite of records within the NBDC database - over 2000 records of 785 species. These were derived from a much wider area which included surveys from the designated sites which overlapped the townland, thus many species were not derived from the project area itself. A more refined data search on only the 1km squares within the townland produced a substantially lower list of only 75 recorded species. This missed many common species and species known to occur in the area (see Appendix 3) and is more reflective of the extent of existing recording in the area.

The data indicate that the wider area is relatively well studied but that the origins of the records, many deriving from formal surveys within designated sites, suggest the wider hinterland area has much lower biodiversity survey coverage. This would be expected of a mainly agricultural and residential landscape (see habitat information 4.2) outside of designated sites.

It is challenging to identify a definitive list of species for the project area and project focus area as this is clouded by overlap with the designated sites and as such the higher quality habitat areas, but the list held at Appendix 3 is a good starting point. There are a range of red-listed⁵ and protected species

⁴ <https://ec.europa.eu/eip/agriculture/en/find-connect/projects/c%C3%BAIra-cr%C3%A9af%C3%B3ige-cultivation-renewal-programme>

⁵ <https://www.npws.ie/publications/red-lists>

within this database some of which derive from the extensive list of birds derived from the National IWeBS survey data and the Bird Atlas 2007-11 data.⁶⁷

The main significance of the data derived from the desktop study relates to species recorded within the designated Natura sites – Ballyness Bay SAC and An Fál Carrach to Meenlaragh SPA which in part overlap and/or adjoin the project area (see figure 12) .

The SAC has primary importance as a coastal dune and estuary complex with priority habitats and the rare Geyer's Whorl Snail *Vertigo geyeri*⁸. The Natura site synopsis fails to mention the presence of EU priority species Atlantic Salmon and Common Seal however, both of which are commonly seen in the estuary with Salmon utilising all local rivers at some level. Common Seal (but not Salmon are noted on the NBDC database – see appendix 3)

The SPA is designated primarily on account of its Corncrake population a red-listed and EU Annex I migratory bird species – this is not noted in the NBDC database, suggesting data from the annual monitoring is not making its way into the database. The SPA solely lists Corncrake as the qualifying interest and mentions no other species of note.

The project area includes part of the catchment of the Tullaghobegly River. The catchment of this river is classified as a “Margaritifera sensitive area”. An MSA relates to the presence of Freshwater Pearl-mussel and their specific ecological requirements. Freshwater Pearl Mussel is a high priority species in Ireland with a relatively restricted range and declining populations.

Particular to the project focus area on the *Cill Ulta* lands, this area has regularly held at least one calling male Corncrake in recent years, with territory centres appearing to be located at the northern fields where there is newly created weedy arable crops and extensive nettle beds for early cover⁹ as well as adjacent dune grassland. Table 1 below indicates corncrake numbers at the *Cill Ulta* land since 2018.

Table 1 Corncrake records at Cill Ulta lands since 2018

	2018	2019	2020	2021
No. calling males	1	1	1 (poss. 2)	2
Comments	Irregular calling – dune grassland and lower fields			Male & female seen, 2 males calling middle fields

⁶ Irish Wetland Birds Survey <https://birdwatchireland.ie/our-work/surveys-research/research-surveys/irish-wetland-bird-survey/>

⁷ <https://www.bto.org/our-science/projects/birdatlas>

⁸ Not listed on NBDC database and may not occur within project area

⁹ <https://www.corncrakelife.ie/early-late-cover>



Legend

-  SPA
-  SAC
-  Project area

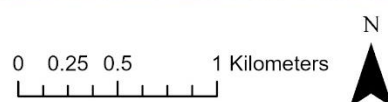


Figure 12 Natura sites within the project area – the coastal habitats are included within the Ballyness Bay SAC and some areas of the mainland are included within the An Fál Carrach to Meenlaragh SPA

4.1.2 Gaps and opportunities

The gaps and opportunities that are identified from an examination of the existing records are described in table 2.

In general, the gaps relate to a bias towards recording in the coastal SAC areas and recording through formal surveys and the opportunities in turn relate to encouragement of more recording by individuals, by experts and through events and also recording in a wider range of habitats and remembering to record common and familiar species that are known from the area but may not feature in the existing database or at a resolution that may exclude them from being recorded at the townland or 1km-square level e.g. Corncrake and Salmon.

Table 2 Data gaps and opportunities

Gap	Opportunity
<i>Low number of biodiversity records specific to project area</i>	Increase wider participation in biodiversity recording
<i>Low range of species groups recorded specific to project area</i>	Invited experts to the area, or field recording events, would increase range of recording
<i>Some known (priority) species not within NBDC database</i>	Field recording of known species would assist in filling data gaps
<i>No habitat data outside SAC</i>	habitat mapping of whole area would assist with recording of a wide range of species groups
<i>Little data from non-coastal and dune habitats</i>	Terrestrial habitats have contributed relatively few records within the project area
<i>Records mostly from formal surveys</i>	Encouragement of <i>ad hoc</i> recording would help generate more records
<i>Few invasive species records</i>	Invasive plant species are abundant and likely to be an issue and can be recorded by non-experts

These gaps and opportunities have helped to direct field survey effort to focus on the more straightforward and familiar species groups. These groups will form the main focus of area wide and focus-area survey and in particular to examine areas of potential interest with a view to identifying actions for biodiversity.

4.2 Biodiversity field surveys

4.2.1 Field Surveys carried out

Table 3 outlines the surveys that were carried out.

Table 3 Field surveys carried out in Cill Ulta

Survey	Method/target groups	Aim	Surveyor	Coverage	Time period
<i>Habitat mapping</i>	Fossitt level 3 & notable priority habitats in focus area	Mapping of semi-natural habitats	AL	all semi-natural habitats & not associated with dwellings	4 visits Apr '20 – Jun '21
<i>Botanical records</i>	Ad hoc records during other surveys	Collection of casual records within semi-natural habitats across the project area	AL	all semi-natural habitats where accessed	April '20 – Aug '21
<i>Dragonflies & damselflies</i>	Ad hoc records collected during other surveys	Collection of casual records	AL	All wetland areas visited	Apr '20 – Jun '21
<i>Butterflies</i>	Ad hoc records during other surveys	Collection of casual records	AL	All areas visited	Apr '20 – Jun '21
<i>Moths</i>	Moth trapping public event & one other occasion	Indicative sample of moths	AL	Cill Ulta glasshouses lands	2 nights: Aug '20 & Jun '21

<i>Survey</i>	Method/target groups	Aim	Surveyor	Coverage	Time period
		within plan focus area			
<i>Pollinators</i>	Field survey transects as training for EIP staff (Jun '21) Casual records during other surveys	Collection of casual records	AL/EG	All areas but mainly focussed on Cill Ulta glasshouses lands	Aug '20, Jun '21
<i>Breeding birds</i>	Atlas ¹⁰ -style survey of townland 1km squares	Breeding evidence for species present	AL	All accessible areas	Apr '20 – Jun '21
<i>Mammals</i>	Ad hoc records of sightings and signs during other surveys	Collection of casual records	AL	All accessible areas	Apr '20 – Jun '21
<i>Invasive plant species</i>	Targeted survey of Plan focus area – ID of main locations of high priority species General observations in wider area	Collection of spatial records where possible	AL	Cill Ulta glasshouses lands	Jun '21

Field surveys for general biodiversity were focussed in certain main areas (zones A-C, Figure 6) and additional records were collected widely, where access was allowed, within the whole study area.

4.2.2 Survey results

All records have been provided in standard format to NBDC and are listed in Appendix 4. Main findings and key habitats and species are summarised in this section.

Habitat mapping

Habitats across the site were mapped using a combination of walkover of accessible land and ground truthing of aerial imagery, sourced from either Google maps or Bing maps (or both) depending on the resolution and ability to differentiate key habitat features.

Habitat mapping constraints:

Access – no right of access was assumed or obtained and all habitat mapping was taken from publicly accessible areas. The survey was carried out during the Covid-19 pandemic and access permission was not sought. As a result the survey generally focussed on public lands only. This prevented detailed survey of relevés to be applied in almost all cases and as such habitat assignment was carried out mainly using observations at some distance and macro scale recording of plant species present

Hedgerows and walls - It should be noted that no attempt to map hedgerows and walls was undertaken in the wider study area. This in part was due to restricted access to many areas of the site partly driven by Covid -19 protocols identified as part of the health & safety field survey risk assessment and partly due to working within Government Covid guidance. In addition though it also was of lower priority due to the relatively limited value of hedgerows in the area, both as field

¹⁰ <https://www.bto.org/our-science/projects/birdatlas>

boundaries (as compared to other parts of Ireland) and their role and relevance as ecological corridors. This is in the context of a largely open ground and grassland dominated ecology of the area.

In this more open coastal landscape with a higher propensity for use of walls and fences as boundaries and a focus on open ground habitats rather than woodland as habitats of highest value, the role of hedgerows, ecologically, is much reduced and of less relevance than in a more wooded area. It was ecologically more relevant to focus on open habitats and linear features such as the coastal habitat strips and river corridor which connected areas of grassland and wetland habitats. Notable also were the banks vegetated with grassland and ruderal plant communities being common along field edges in the project focus area on *Cill Ulta* land (see figure 13 and 14).

Rivers – the Tullaghobegly River forms the eastern boundary of the study area. It is mapped as a polygon rather than a linear feature (which is a variance from normal habitat mapping practice) as the river channel is highly variable in width and is mapped up to the townland boundary which would otherwise cause visual conflict on mapping if mapped in a linear format. The river corridor (marked as Zone C) is broadly aligned with the apparent floodplain on the eastern side of the river and while access to most of it was not possible, access along the anglers path on the eastern bank and parts of the western bank was feasible and allowed views onto some areas of wetland.

Habitat condition – No formal assessment of habitat condition was undertaken, mainly due to the lack of accessibility over the whole area and the limited time availability and accessibility into most of the habitats as well as the predominance of agricultural habitats rather than purely semi-natural habitats.

The habitats found within the study area are outlined in Table 4 and are mapped in figure 13.

Table 4 Summary Fossitt codes and extent within study area

Fossitt Habitat codes	Broad habitat type	Total Area
BC1, BC2	Arable & horticultural crops	8.46
BL3, CC1	Built land	2.62
CD3	Fixed dunes (modified)	2.52
CD6	Machair (characteristics of/modified)	2.34
CM2, CM2/GS3, CM2/GS4	Saltmarsh	8.77
CW2	Tidal river	0.56
FL8	Ponds	0.29
FS1	Reedbeds	0.68
FW1	River	2.22
GA1, GA1/GS3, GA1/CD6	Improved/highly modified grassland	190.5
GS1, GS1/WS1, GS1/GS2	Dry grassland (neutral, semi-improved)	1.40
GS3, GS3/WS1, GS3/GS4	Dry-humid acid grassland (dry)	40.88
GS4, GS4/CM2	Wet grassland	64.24
HH1/GS3, HH3	Heathland (mainly wet heath)	22.12
LR3, LS3, LS5, MW4	Intertidal and shoreline habitats	155.41
NC	Not covered in survey	207.71
Rud.	Ruderal/highly modified habitats	0.80
WD1, WD1/WS1, WL2	Planted woodland and treelines	5.40
WN2, WN5, WN5/WD2	Semi-natural woodland	29.29
WS1, WS1/GS2, WS1/GS4, WS1/HD1, WS1/Rud.	Scrub habitat	38.37
	TOTAL	784.54

Of the habitats identified in table 4, most are highly modified, some however show characteristics of priority habitats, including potential for fixed dunes, machair and some heathland habitats albeit in very small areas. The river corridor zone holds a moderate extent of wet grassland and in places some look to have potential for classification as fen habitats though access was not possible to confirm this.

The coastal habitats are of highest priority and most are already designated for their special interest. One area of undesignated dune type grassland, albeit highly modified, sits close to the north of the boundary of the PFA though is not within the management control of *Cill Ulta*.

The River Tullaghobegly itself is of note as an eroding upland river, with a section of lower river being tidal. It has been tested for water quality by the EPA¹¹ periodically Q-value results include a score of 4-5 in 1990 (“High” quality status) in the mid river section, upstream of the study area, and 4 in 2018 (“Good”) in the lower section. The river is classified as “Margaritifera sensitive area” as it can support Freshwater Pearl Mussel and is noted as “at risk” of failing to meet its Water Framework Directive targets by 2027¹². As such the river catchment could be an important area to consider for biodiversity measures, and in particular, its importance as a Salmon and Sea Trout river means there are potentially many local people who have an interest in its wildlife and health.

The broad habitats within the Plan Focus Area (*Cill Ulta* land) are listed in Table 5 and illustrated in Figure 14

Table 5 Extent of main habitats within Plan Focus Area

Fossitt Habitat codes	Broad habitat type	Total Area
BC2	Arable & horticultural crops	8.47
FL8	Ponds	0.29
Rud.	Ruderal/highly modified habitats (field edge nettles)	0.2
WD1, WD1/WS1, WL2, WS1	Planted woodland, treelines & scrub	4.69
CD3	Fixed dunes (includes associated damp grassland)	c. 0.5

¹¹ Available at <https://gis.epa.ie/EPAMaps/>

¹² <https://gis.epa.ie/geonetwork/srv/eng/catalog.search#/metadata/e9b2fac6-e14f-46c3-ae48-59513f6e71cb>



Figure 14 habitats within and around the Plan Focus Area

Significant plant communities & botanical records

The PFA is dominated by land for growing and by associated areas of ruderal vegetation around areas of built ground and field edges. The *Cill Ulta* operation promotes crops which are grown within the scope of the Cúlra Créafóige EIP. These are mainly experimental crops and crops for regenerative agriculture, focussing on the restoration of the ground to have better soil quality, is compatible with wildlife interest, has novel or alternative purposes such as natural fertiliser (comfrey), soil nitrogen fixer (clover) or as a cash crop (garlic) and is demonstrative of organic growing. These crops are grown without herbicidal treatments and as such the fields and field edges are rich in arable weeds, a range of common grasses and verge species and support abundant pollinating insects and in winter support seed eating bird populations.

Of particular value within the crop fields are the large banks of nettles which form ideal early and late cover for Corncrakes. The whole of the open ground of the PFA sits within a Corncrake SPA.

The history of disturbed ground and mixed uses over many years has given rise to the occurrence of Invasive Alien Species, predominantly garden escapes and there are a number of species within the area which need to be carefully monitored in future and treated where possible. Notably Giant Rhubarb. Other species present include Monbretia and Fuchsia. Any treatments would first require details survey of the site and the townland as a whole ideally to prioritise and plan action, given the extensive nature of IAS presence in the area.

While there are no significant habitats in terms of rarity, quality or naturalness the within the PFA there is a small area of fixed dunes and damp grassland associated with it which is within the nominal PFA boundary. There is also a substantial area of scrub and immature mixed, planted, broadleaved woodland (this has characteristics of wet woodland in places). The woodland has the potential for management to create an enhanced native woodland community.

Botanical records from within the boundary of the PFA are shown in Appendix 4, species of note include two orchids; Pyramidal Orchid and Northern Marsh Orchid, both noted on fixed dune/dune slack areas on edge of the site. There is also a developing woodland floor community within the woodland areas including areas with small populations of Bluebell and Primrose and in damp areas Yellow Flag Iris. In the dry scrub areas on the western side, the fringing grassland, while highly modified in the past is more akin now to neutral grassland and has typical species present including a range of common grasses particularly False Oat Grass. Notable flowering plants found included Knapweed which was abundant in places and Devil's-bit scabious in small areas. Both of these species are particularly valuable for pollinator species



Figure 15 Northern Marsh Orchids in damp dune slack area on edge of the PFA

There are two small reservoirs within the *Cill Ulta* lands and these are lined and hold water for irrigation. Their levels change and the water is fairly stagnant and enriched and they have very limited wildlife value though likely support some aquatic invertebrates. Access to their steep sides is hazardous. They do support both amphibious bistort and on the edges, Purple loosestrife, both of which have pollinator value and in the bistort submerged stems and leaves helps to provide aquatic invertebrate habitat.



Figure 16 One of two reservoirs on Cill Ulta land - these are not suitable to approach but do support some basic aquatic interest

Dragonflies and damselflies



Only five species of Dragonflies and damselflies were noted on the site (records are shown in appendix 4). Common Darter, Brown Hawker, Common Blue Damselfly, Blue-tailed Damselfly and Emerald Damselfly. While there are two small reservoirs, these are of limited value though may support common dragonflies. The general lack of freshwater wetland areas on the site limits the scope of this group. Improving the extent of these habitats in future would be of value in diversifying these groups.

Figure 17 Common Emerald Damselfly - seen close to irrigation reservoirs on site

Butterflies and moths

Butterflies are relatively abundant within the PFA and very obvious during favourable weather conditions. While no rare species were noted abundance was high particularly of migrant species. The butterfly species list is included in Table 6.

Table 6 Peak Butterfly counts at Cill Ulta lands

Species	Count	Date	Comment
Peacock	3	14/08/2020	
Small Tortoiseshell	2	14/08/2020	
Red Admiral	6	14/08/2020	
Painted Lady	1	14/08/2020	
Large White	1	14/08/2020	
Small white	2	18/06/2021	
Green-veined White	8	18/06/2021	
Small Copper	2	14/08/2020	
Common Blue	3	14/08/2021	
Ringlet	6	21/07/2020	Abundant near dune grassland
Meadow Brown	4	21/07/2020	
Speckled Wood	2	18/06/2020	Around entrance

In addition to these species Orange Tip is likely present at the correct season (May) but was not recorded on survey visits.

Bees

A single survey of Bumblebees was undertaken in June 2021 as a training exercise with *Cill Ulta* staff as part of the EIP project. In addition, casual records were amassed during site visits for habitat mapping etc. The species noted are shown in Appendix 4.

Notable species found across the PFA were Common Carder Bee and the declining Red-tailed Bumblebee and a single Moss Carder Bee (see table 7).

Given the proximity to extensive dune grasslands it is possible that the rich fields of pollinator crops such as clover and the comfrey could attract bees from a wide area and be a valuable resource and an opportunity for people to see and learn about pollinator insects. The site has the potential to support efforts for pollinators by continuing existing diverse organic cropping and maintaining the surrounding flower rich field margins.

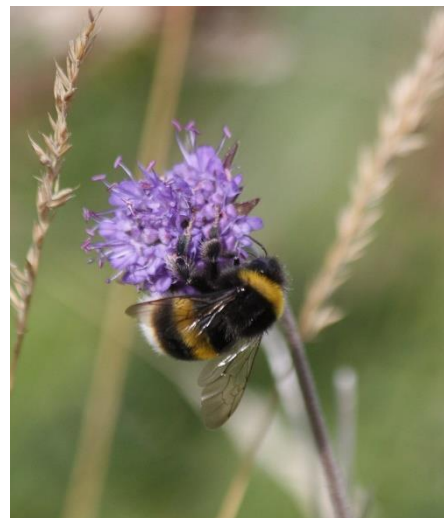


Figure 18 White-tailed Bumblebee on Devil's-bit Scabious on grassland field margin

Table 7 Bumblebee species – first records from Cill Ulta lands

Species	Count	Date	Comment
White-tailed Bumblebee	20+	18/06/2021	<i>Bombus lucorum</i> , on crop fields & edges
Garden Bumblebee	5+	14/08/2020	<i>Bombus hortorum</i> on Comfrey
Red-tailed Bumblebee	1	18/06/2021	<i>Bombus lapidarius</i> , on clover
Common Carder Bee	8+	14/08/2020	<i>Bombus pascuorum</i> , Nettles and Comfrey
Moss Carder Bee	2	14/08/2020	<i>Bombus muscorum</i> , seen on knapweed on field edge

Hoverflies



Figure 19 *Helophilus pendulus* on Knapweed

Hoverflies were recorded incidentally during visits to the PFA and all records are shown in appendix 4. No notable species were recorded, which may reflect the relatively limited range and naturalness of habitats present on the PFA. The species *Cheilosia illustrata* was noted on umbellifer plants (Cow Parsley) in August and is a relatively infrequent species. Commoner species recorded include a range of common *Syrphus* species and the distinctive, mainly wetland, species *Helophilus pendulus* (Figure 19).

Fish, amphibians and reptiles

The Tullaghobegly River is notable as a salmon and sea trout fishery. It is closely controlled by an angling association which undoubtedly assists in the conservation of Salmon (an EU Annex II and globally threatened species). During a survey of the Tullaghobegly river riparian zone Salmon were observed in pools along the river. In addition, Brown trout (Sea Trout) were seen and both Salmon and Sea Trout were seen in river channels at the mouth of the river.

No other fish species were noted in the waterbodies but it is likely that a range of marine species occupy the estuary channels where they overlap the study area.

No common frog, palmate newt or common lizard were recorded but further investigation at appropriate seasons would likely turn these up in appropriate wetland areas.

Birds

Table 8 includes all priority red and amber listed species¹³ which breed on or close to the site with the highest breeding evidence code recorded and their occurrence either within the PFA or the wider study area. These records were collected by visiting a range of different habitat types, during habitat and other surveys also and noting species location and assigning a suitable breeding evidence code which relates to either possible, probable or confirmed breeding based on observed behaviour.

¹³ Gilbert, G., Stanbury A. and Lewis, L. (2021) Birds of Conservation Concern in Ireland 2020 – 2026. *Irish Birds* 9: 523-544 Available from: <https://birdwatchireland.ie/birds-of-conservation-concern-in-ireland/>

Table 8 Birds of Conservation Concern in Cill Ulta

Species (Red list – High concern / amber list Medium concern)	Breeding evidence code		Date (of highest breeding evidence code)	Comments
	PFA	Wider study area		
Swift	F	F	21/07/20	
Corncrake	P	P	18/06/21	Probably breeds in PFA – 2 males + female seen
Kestrel	F	H	21/07/20	
Meadow Pipit	FF	FF	18/06/21	Breeds in PFA
Grey Wagtail		FF	18/06/21	Tullaghobegly river
Eider	U	U	18/06/21	Breeds on offshore islands uses estuary for young
Oystercatcher	P	P		Foraging on estuary – may breed
Lapwing	F	P	21/07/20	May breed in wider area
Curlew	U	U	21/07/20	Foraging on estuary
Dunlin	U	U		Foraging on estuary
Snipe		D	09/08/20	
Redshank	U	U	09/08/20	Foraging on estuary
Common Sandpiper	M	M	14/08/20	
Common Tern	F	F	21/07/20	Foraging on estuary
Arctic Tern	F	F	21/07/20	Foraging on estuary
Sandwich Tern	F	F	21/07/20	Foraging on estuary
Kingfisher		H	14/08/20	Maybe nesting on Tulloghbegly – no burrows seen
Skylark	S	S	18/06/21	May breed in PFA, singing birds present
House Martin	F	ON	18/06/21	Houses in wider study area
Swallow	ON	ON	18/06/21	Nest in PFA buildings
Sand Martin	F	H	18/06/21	Maybe nesting on Tulloghbegly – no burrows seen
Willow Warbler	FF	FF	18/06/21	Woodland edge of PFA
Starling	H	ON	18/06/21	
Northern Wheatear	M	H	14/08/20	
Goldcrest	S	T	09/08/20	
House Sparrow	P	ON	18/06/21	
Greenfinch	F	F	09/08/20	
Linnet	F	P	21/07/20	
Shelduck	H	H	21/07/20	Estuary
Mallard		H	09/08/20	River
Red-throated Diver	F	F	14/08/20	Over PFA
Cormorant	U	U	14/08/20	Feeding in estuary channels
Ringed Plover	H	H	18/06/21	On intertidal
Black-headed Gull	F	F	14/08/20	Foraging on estuary areas and fields
Common Gull	F	F	14/08/20	Foraging on estuary areas and fields
Lesser Black-backed Gull	F	F	14/08/20	Foraging on estuary areas and fields
Herring Gull	F	F	14/08/20	Foraging on estuary areas and fields

A range of wintering species occur on the estuary and are well monitored by IWeBS (see appendix 2) the PFA includes a nominal section of estuary but the views onto the wider estuary provide a potentially good opportunity for viewing of birds and seals with appropriate interpretation.

Wintering species on the *Cill Ulta* fields are of note with good numbers of Skylark, Linnet and occasionally Twite being recorded from the site in winter, particularly from Oat stubbles. Given the lack of arable crops in the wider vicinity this could form a valuable habitat for winter farmland birds.

Corncrake

2021: 2 calling males, 1 female seen, territorial/courtship behaviour observed on 18 June 21

Anecdotal information from *Cill Ulta* staff indicates habitat usage remains focussed on northern fields at the site. Habitat quality for Corncrake in this area is notably high, following 3-4 years of effort to clear the site of scrub and invasives and establish cropland and early cover areas. It now has extensive fringing nettle beds, tall clover and grass sward and weedy crops (see figure 9 & 13) and has capacity for higher corncrake numbers should the wider SPA population increase to support this.

Recorded annually since at least 2018 on *Cill Ulta* land, this species is one of the highest priorities for conservation in Ireland. Formal survey of the species is carried out by the NPWS Corncrake scheme fieldworkers for the purposes of management agreements. Additional information on site usage would be of value in future years.

Mammals

The main mammal interest relates to the estuary and the Tullaghobegly River. The estuary areas support Common Seal and Grey Seal. Both visit the tidal channels which bound the wider study area to hunt for fish. The estuary and the river support Otter and signs were noted on visits on August 2020. While it is likely otter also roam the estuary fairly widely.

Other mammals seen include Rabbit, signs of Fox and Hedgehog. No other mammals were noted.



Figure 20 Early cover for Corncrakes on Cill Ulta fields – comfrey and nettles on banks and field edges growth fast in spring and provide broad-leaved cover suitable to host returning Corncrakes before meadow and crop areas become suitable

Invasive species

The wider study area is heavily infested with a range of Invasive Alien Species (IAS). The most notable of which is Himalayan balsam. An initial attempt to map this species was abandoned due to its extent and its interrelationship with gardens and private ground and its pervasiveness through road verges. Similarly, Fuchsia and Montbretia are widespread as is Giant Rhubarb. There was one notable patch of Japanese Knotweed located. Rhododendron is also present in patches, often close to forestry areas and close to gardens from where it may have spread.

The main sites of concern are noted on Figure 22. This is where the occurrence of these species are of relevance to “biodiversity zones”. The full extent is much wider and related to most road verges at some level with a likelihood of hidden patches of some species where access was not possible.

Of note is the potential for significant biodiversity benefit in reducing or eradicating Himalayan balsam along the riparian zone of the river and the eradication of Giant Rhubarb from the PFA.

It is noted that Mink are seen in the area from time to time and that these could be a threat to the small population of Corncrake.



Figure 21 Invasive species along the Tullaghobegly river – Himalayan Balsam, Montbretia and Fuchsia can all be seen in this image and have displaced native vegetation

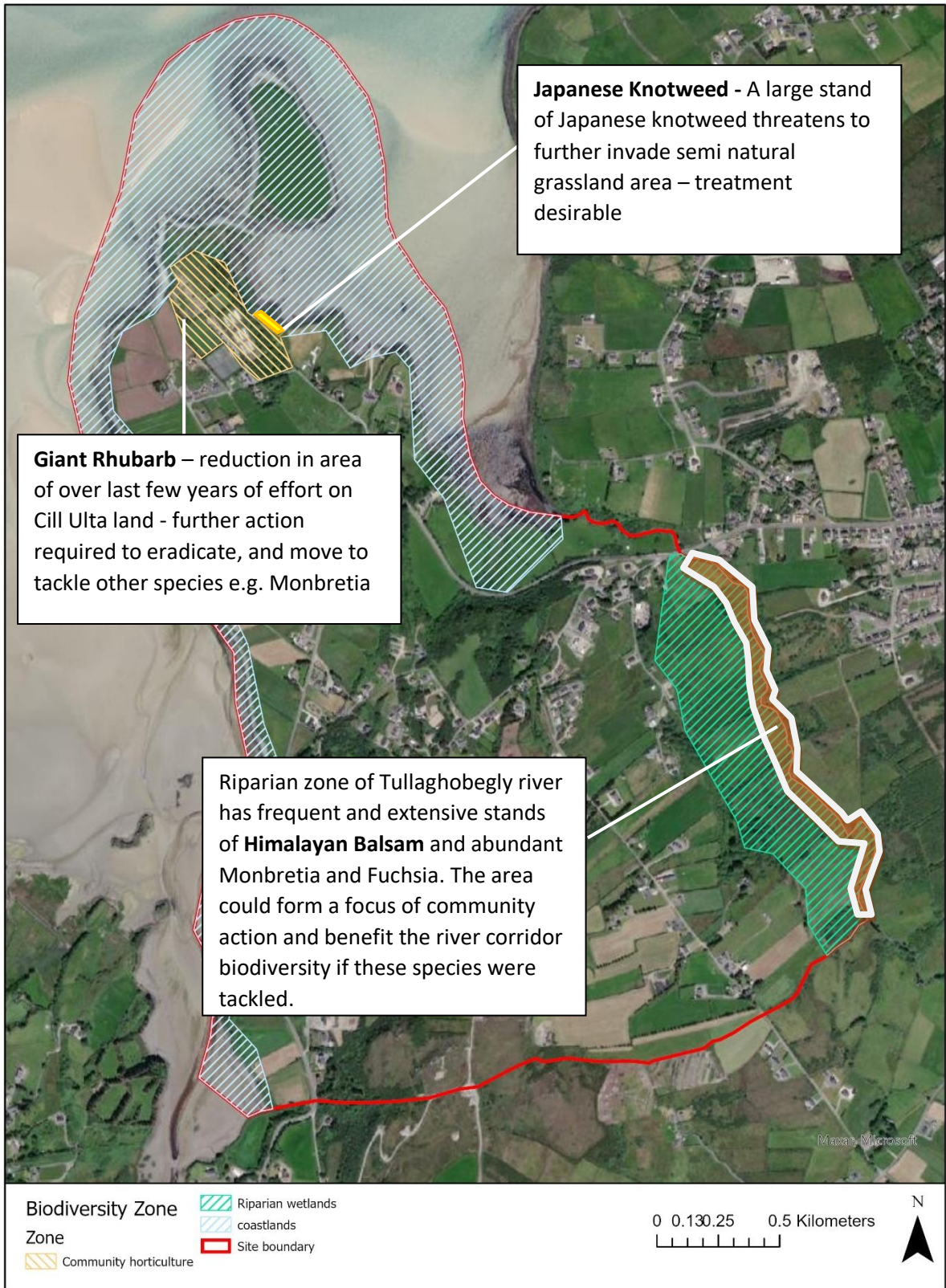


Figure 22 Invasive species - main issues in study area

5. ANALYSIS AND ACTIONS

5.1 Plan extent

While the wider project study area considers all of Cill Ulta townland and a surrounding area of estuarine/coastal habitat (see section 1.2) landowner permissions are not in place for widespread actions in the area as a whole. As such, analysis and actions are provided for what is referred to as the Plan Focus Area (PFA), which covers actions within the boundary of the state-owned, leased, *Cill Ulta* community horticulture land and actions which can be delivered there or through that initiative e.g. via community engagement on public lands which do not require specific landowner permission. The actions provided should provide a focus for community biodiversity efforts which could be applied more widely as biodiversity awareness increases and with increased community engagement.

Some desirable actions are highlighted for the wider study area whereby suitable community engagement, subject to landowner permission could result in a significant biodiversity benefit.



Figure 23 The old glasshouses area turned into low-input horticulture and sustainable cropping - the focus area for biodiversity initiatives in this plan

5.2 Main biodiversity attributes

From the desktop study and from field survey a number of key attributes of the plan focus area are identified and these are outlined in table 9 and figure 24.

Table 9 Plan Focus Area – main biodiversity attributes

Feature	Attributes	Issues/opportunities
Coastal intertidal and saltmarsh habitats	<ul style="list-style-type: none"> • SAC qualifying interests • Accessible 	<ul style="list-style-type: none"> • Increased awareness of its value and quality to engender better protection • Viewing opportunity of Ballyness Bay wildlife
Arable/horticulture field complex	<ul style="list-style-type: none"> • Corncrake habitat • Pollinator value • Accessibility 	<ul style="list-style-type: none"> • Enhanced Corncrake management • Enhanced management for pollinators • Awareness raising opportunities • Presence of invasive species – management needed
Pollinators	<ul style="list-style-type: none"> • Horticultural areas with ability to grow target crops • Grassland restoration opportunities 	<ul style="list-style-type: none"> • Pollinators and agriculture awareness • Gardening for wildlife • Training/education opportunity – butterflies/moths/bees etc identification and survey
Birds	<ul style="list-style-type: none"> • Buildings support nesting birds • Proximity to intertidal area 	<ul style="list-style-type: none"> • Enhance buildings by provision of nest sites – interpretation opportunity • Opportunity to develop viewing area of estuary
Corncrake	<ul style="list-style-type: none"> • SPA qualifying interest 	<ul style="list-style-type: none"> • Presence linked to sustainable agriculture • Rare & enigmatic species • Viewing/interpretive opportunity
Ponds	<ul style="list-style-type: none"> • Existing ponds, limited interest 	<ul style="list-style-type: none"> • Limited interest could be enhanced by creation of specific wildlife ponds, with educational potential

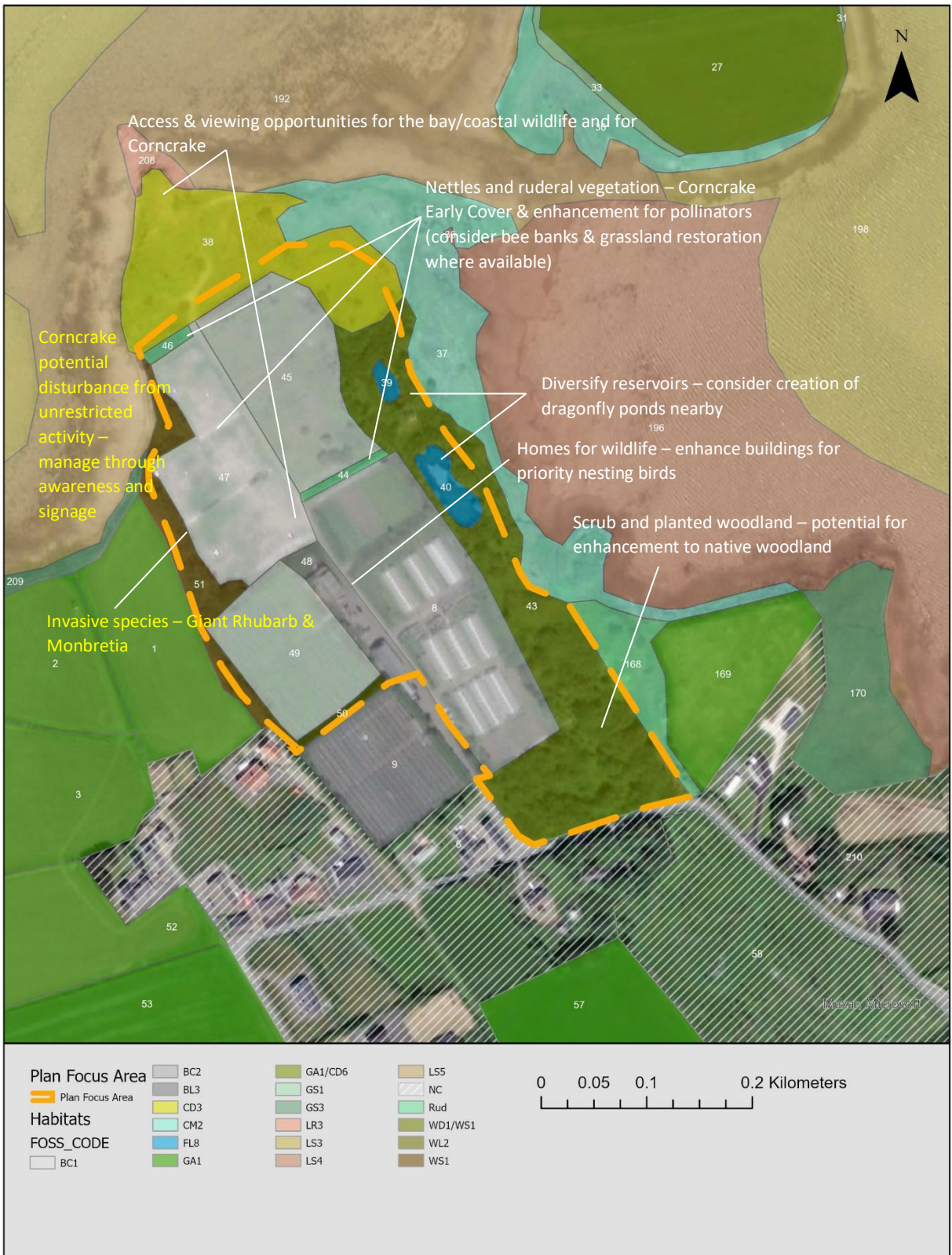


Figure 24 Key attributes (white) and issues (yellow) in plan focus area

In addition to these the Tullaghobegly river corridor provides an obvious focus for any activity relating to the freshwater environment and the engagement with the community around aquatic biodiversity and possibly invasive species actions is worth considering.

The community in the area is small and results of the consultation indicate a relatively limited awareness of issues around local biodiversity and perhaps a limited opportunity to engage with this. Creating more opportunities for awareness raising and engagement through perhaps, events and activities would be of benefit. In addition the opportunity to see wildlife is often best achieved by providing venues to do so. There exists the potential at *Cill Ulta* lands to create viewing areas for estuary wildlife, creation of wildlife ponds and perhaps most significantly, the potential to create a Corncrake viewing area, which would enable disturbance free viewing of an elusive species and potentially even attract visitors from further afield.

Of particular note remains the relatively modest dataset of local biodiversity and this could be expanded significantly by public engagement and active focus on recording, through training and events would be of value.

5.3 SWOT analysis

The SWOT analysis below summarises the main analysis above, comments in previous sections and a review of the data gathered

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Good basic biodiversity resource and surrounded by high quality wildlife habitat for wider viewing • Proximity and accessibility to fields and coastlands • Raised areas with potential for viewing sites • Existing and recent management has enhanced biodiversity value of PFA • Existing experience of Cill Ulta team in people engagement/events/practical groundworks 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Limited biodiversity expertise in Cill Ulta staff and local community • Sensitivity of Corncrake to disturbance • Limited access to wider range of habitats • Agriculture dominated area – limited range of semi-natural habitats • Limited range of public land for carrying out actions – therefore co-operation needed • Extensive invasive species communities
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Development of a ‘brand’ based around nature for the site • Opportunity to become THE place to see Corncrake in Ireland • Complimentary projects which fit well with biodiversity promotion e.g. Cúlra Créafóige EIP • Good space at Cill Ulta for events and access to coastal habitats and horticulture land along with buildings • Walks/interpretation/lifelong learning based around biodiversity is feasible at Cill Ulta site • Riverine corridor for wildlife connectivity and wider community engagement 	<p>THREATS</p> <ul style="list-style-type: none"> • Competing project demands • Challenging presence of invasive species especially on river corridor • Lack of current engagement in biodiversity with community • Need for land at Cill Ulta ground to be productive • Increased visitor numbers may impact wildlife without careful management • Lack of resources • Lack of immediate local wildlife/biodiversity expertise • No management of invasive species apparent

5.4 Objectives & actions

Objective 1: Contribute to biodiversity protection and enhancement by managing *Cill Ulta* lands for priority species

Rationale for actions

The *Cill Ulta* enterprise is based on horticultural land which supports some priority species and species groups and could be further enhanced to support these and other species. While the habitats are mainly heavily manipulated and not semi-natural, the focus of the land as a productive system with sustainability central to the operation provides a good demonstration of what could be achieved on productive land.

In particular the site forms part of a Corncrake SPA and is possibly the most regular and important site in the SPA for the species at the time of writing (see Objective 3).

Of particular value at the site are the fields of organically grown crops, which also support a wide range of arable weeds, clover and other pollinator friendly plants

There is a small area of existing scrub and planted woodland and two small water reservoirs. Management of the woodland to enhance its naturalness and provide e.g. standing and fallen deadwood and better woodland ground layer flora would assist in enhancing its value for biodiversity and provide a venue, perhaps for a woodland walk. Nest boxes for birds could also add some minor value and be a visual indicator to people that management is underway.

The cropland and even the buildings support a range of priority breeding and wintering birds and some simple actions would support these species. Notably the red-listed Skylark and wintering finches, including Twite (red listed).

Provision of an additional one or two small wildlife ponds in addition to the reservoirs would add to habitat diversity on the site and be more accessible for people to learn through e.g. pond dipping events.

Continuing to record and monitor key species will help inform success through the life of this plan.

Actions

#	Action	When	By who	KPI/output
1.1	Maintain a cropping regime within Cill Ulta land which is compatible with biodiversity interest – Seed crops for wintering birds Pollinator-friendly crops Suitable weed control regime to support wildlife	2022	Cill staff Ulta & NPWS	Draft crop plan annually reviewed by ecologist
1.2	Devise a specific pollinator plan for the lands & maintain in conjunction with All-Ireland Pollinator plan	2022	Cill staff Ulta	Short plan devised
1.3	Devise a woodland management plan to promote woodland biodiversity (consider potential application for Native Woodland Grant Scheme)	2022-2027	Cill staff Ulta	Woodland plan devised by 2024
1.4	Create a wildlife pond (also for use in awareness raising) – Plan pond with ecologist & source funding Construct	2022-2027	Cill ecologist & volunteers, Ulta contractor	New pond in place by end 2024

#	Action	When	By who	KPI/output
1.5	Nest box provision within Cill Ulta land to target priority bird species notably: Swallow, House Sparrow, Starling, Grey Wagtail, Barn Owl, Kestrel	2024 & 2027	Volunteers & ecologist	Nest box plan by end 2022 Nestboxes erected by end 2024

Actions map



Figure 25 Map of actions under Objective 1 – Biodiversity protection and management

Objective 2 Contribute to wider townland biodiversity enhancement by raising awareness and knowledge of local biodiversity

Rationale for actions

The online Biodiversity Awareness Survey (see appendix 1) identifies that while recognition of the importance of biodiversity is widespread in the community there is an indication of a limited awareness of issues and engagement with it. It was noted meaningful engagement would enable better community engagement and a positive outcome for biodiversity.

The local area is important as a destination for domestic tourism and many people who visit are semi-resident or return visitors. In addition the area is on the Wild Atlantic Way. Thus a wide range of visitors could be encouraged to engage with biodiversity if facilities and activities existed.

The SWOT analysis identifies that local expertise in biodiversity is also fairly limited and that the community could benefit from training opportunities or educational initiatives that may enhance this in the medium to long term.

A number of opportunities for community engagement exist and could be further developed – the presence of *Cill Ulta* as a venue, a range of complementary projects which create good synergy, the presence and importance of tourism in the local area and the high quality adjacent habitats to the *Cill Ulta* site.

The site is arguably the best place to be guaranteed the presence of Corncrake in an accessible site on the Irish mainland. There is a raised area at the southern of the fields which could be converted to form a sheltered viewpoint from which people could visit to have a chance of seeing the elusive and secretive corncrake

Actions

	Action	When	By who	KPI/output
2.1	Develop sites at Cill Ulta for viewing of the wildlife of the site and of Ballyness Bay through a walking route and creation of lookout points with interpretation	2023	Cill Ulta staff & ecologist	Plan in place by 2023 & funding application
2.2	Develop an annual biodiversity events & training programme including a Community Bio-blitz	2022	Project Ecologist	Programme devised and delivered
2.3	Wildlife pond & pond dipping platform & educational materials developed	2023	Project ecologist in conjunction with local schools	Subject to funding
2.4	Consider options around development of Cill Ulta as a biodiversity learning centre or similar initiative in conjunction with complementary projects	2022-2027	Cill Ulta staff, board and ecologist advisor	Review carried out by end 2023

Actions map

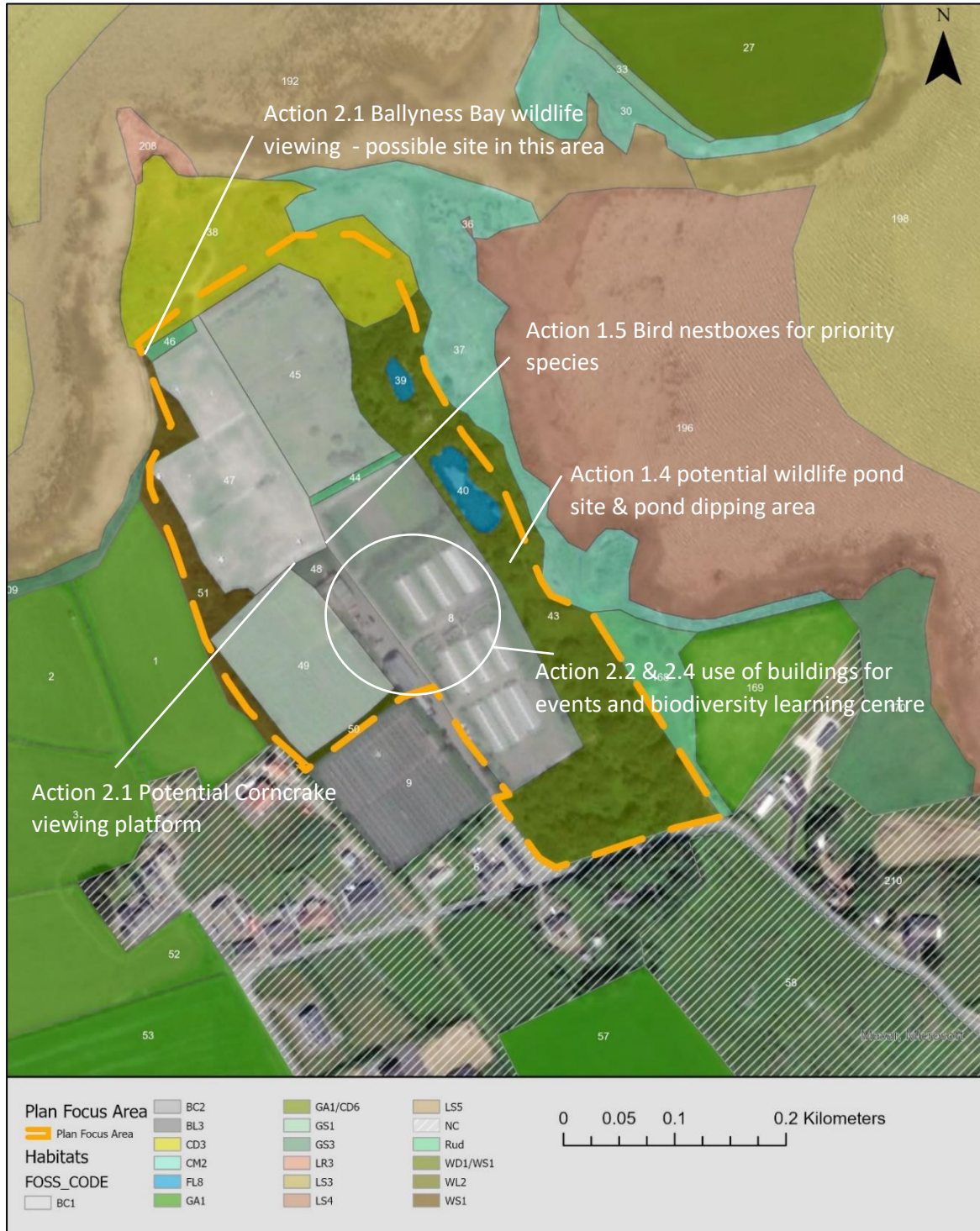


Figure 26 Actions under objective 2 – biodiversity awareness

Objective 3 Contribute positively to maintaining and enhancing the conservation condition of Ballyness Bay SAC and Falcarragh to Meenlaragh SPA by sensitive and targeted management of *Cill Ulta* lands.

Rationale for actions

Parts of the *Cill Ulta* land sit within Ballyness Bay SAC and Falcarragh to Meenlaragh SPA. These designations are significant biodiversity accolades and indicate where there are high priority species and habitats. Working to engender positive management where this is possible, for the qualifying interest features will help to enhance the condition of the sites as a whole and protect their special interest.

On the SAC the first step would be to assess the opportunity for managing dune grasslands and saltmarsh areas. This would be by determining where exactly the site boundary lies and whether *Cill Ulta* can take any useful actions for priority habitats. This could be done in consultation with NPWS to guide recommended actions for the future, beyond the life of this plan.

On the SPA, *Cill Ulta* lands form the most reliable site for Corncrake in the area and appear to be getting better. The work carried out so far to develop early cover areas and suitable cropping to support Corncrake breeding success is valuable and should be continued. The potential for the site to act as a demonstration area is high and a Corncrake “viewing platform” would add value (see action under objective 2). Further pressure to extend and expand horticultural operations may require peripheral areas around the fields to be utilised and this could be accommodated by careful siting of infrastructure, limiting its extent and continuing to positively manage the fields of main interest at the northern portion of the land.

Recording corncrake usage on the site by regular survey is valuable and should be in addition to standardised Corncrake scheme surveys

Actions

	Action	When	By who	KPI/output
3.1	Determine extent and boundaries of <i>Cill Ulta</i> lands in relation to SPA by on site meeting with NPWS	2022	Cill Ulta staff & NPWS	Meeting held
3.2	Hold discussion meeting about potential management options subject to outcome of action 3.1	2022	Cill Ulta staff & NPWS	Meeting held
3.3	Maintain corncrake early cover and other habitat on <i>Cill Ulta</i> fields by engagement with any extant NPWS Corncrake scheme	2022-2027	Cill Ulta staff	Corncrake presence
3.4	Plot all calling Corncrake registrations on database	2022-2027	Cill Ulta staff	Corncrake data recorded annually
3.5	Carry out Corncrake habitat condition assessment	2024 & 2027	Cill Ulta staff	Habitat condition assessment – short report

Actions map



Figure 27 Actions under objective 3 – additional corncrake management

Additional recommended actions

In addition to actions under the three main objectives there are actions which relate to the wider area, which would be recommended to tackle identified biodiversity issues or develop opportunities in the townland as a whole:

A. Carry out a full survey of invasive species in conjunction with suitable stakeholders

Rationale: There is a very diverse range and large extent of invasive alien plant species in the area. These are so extensive as to warrant a survey of their own and include Japanese knotweed, Monbretia, Fuchsia and in particular Himalayan Balsam. Focus would be valuable on the Tullaghobegly river corridor particularly, and across road verges throughout the townland. It would be of value to make connection with the local authority biodiversity officer to discuss a means of achieving this

B. Biodiversity & social media activity – create an area based biodiversity social media feed or feeds on e.g. Facebook and Instagram

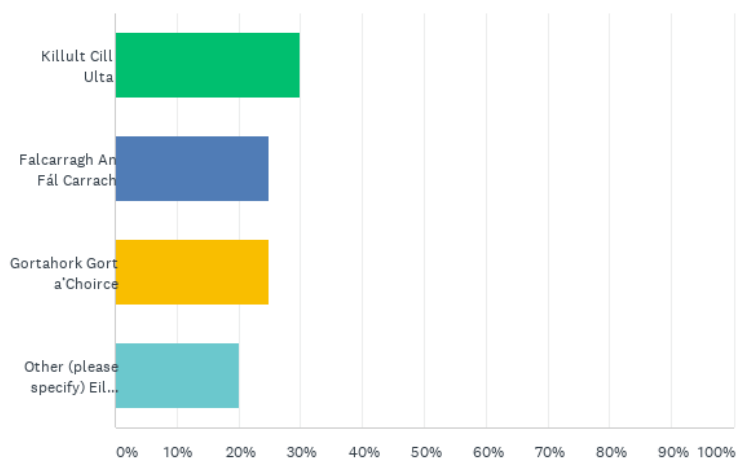
Rationale: Social media activity is driving much of the information that people are able to access now and specific social media activity around biodiversity information would be of value in this area. This could be considered in partnership with other communities or under the banner of a local organisation or group which includes the *Cill Ula* area. This would give a simple point of information and engagement on biodiversity of the area, including the ability to publicise events and training opportunities.

6. APPENDICES

Appendix 1 Community Biodiversity Awareness Survey

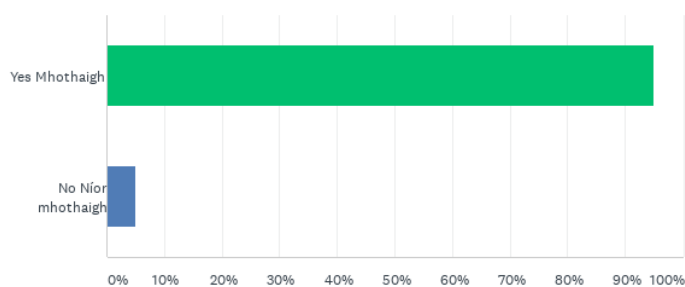
Q1 Asked respondents to provide a name and contact details if they were willing to. No data is included here.

Q2 Which Parish do you live in? Cá bhfuil tú i do chónaí?



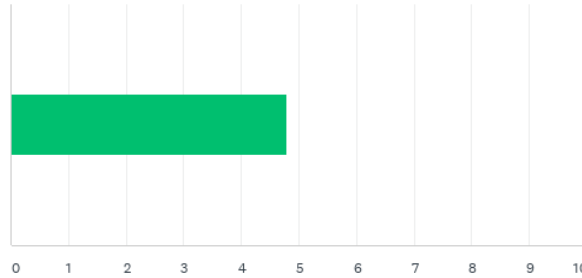
Q2 Notes: Respondents were primarily from the three neighbouring townlands and mainly from Cill Ulta. Although respondents are from a wider area than just the plan area the responses should be relatively representative of the local community

Q3 Have you ever heard the term "Biodiversity" before this survey? Ar mhothaigh tú iomrá ar choincheap na 'bitheagsúlachta' roimhe seo?



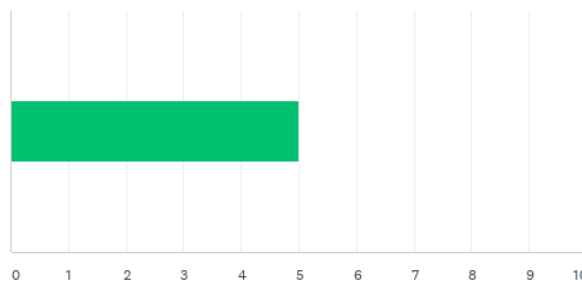
Q3 Notes: All but one person had heard the term biodiversity before

Q4 Please indicate on this scale (using the slider) how well informed you feel about biodiversity loss in your local area. Léirigh, le do thoil, ar an scála (úsáid an sleamhnáin) cé chomh eolach is atá tú fá mheath na bithéagsúlachta i do cheantarEolach



Q4 Notes: Respondents felt relatively uninformed about local biodiversity loss – this represents a general measure of local biodiversity awareness, indicating that people may feel relatively unengaged with biodiversity generally and specifically that biodiversity is a somewhat low priority locally.

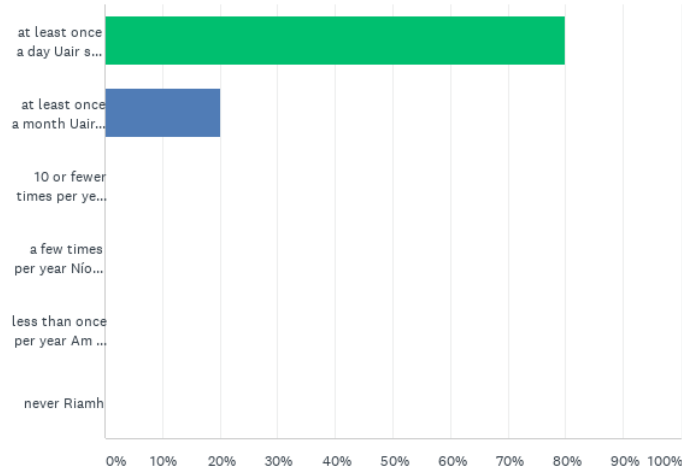
Q5 Please indicate on this scale (using the slider) how well informed you feel about biodiversity loss nationally. Léirigh, le do thoil, ar an scála (úsáid an sleamhnáin) cé chomh eolach is atá tú fá mheath na bithéagsúlachta go náisiúnta.



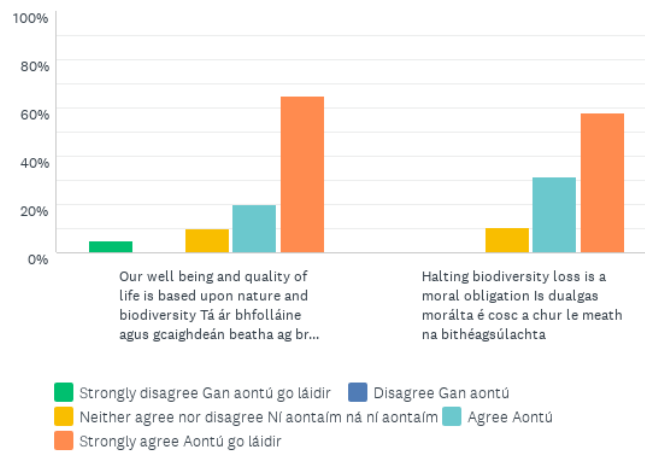
Q5 & Q6 Notes: Respondents felt only slightly more informed about national biodiversity loss. This is consistent with Q4 and reflects what may be an indication of generally low biodiversity interest or engagement within the community, despite the area holding a wide range of interesting wildlife, a scenic outdoor environment and internationally important wildlife sites.

This is somewhat belied by the results of Q6 which indicate that people notice or consider biodiversity on a very regular basis. This may in part be attributed to a general likelihood that people answering a questionnaire about biodiversity are more likely to engage but is confounded by earlier answers relating to the level of awareness. It may be that there is latent local interest in wildlife but that actual levels of awareness are low and that awareness raising initiatives could be of value. Albeit sample size in the survey was relatively low.

Q6 Tell us how often you notice or consider wildlife/nature (select from the drop down list).
 Léirigh fá chomh minic a thabharfá faoi Deara, ná meabhrú ar, fhiadhúlra/ an nádúr
 (roghnaigh ón bhosca anuas)

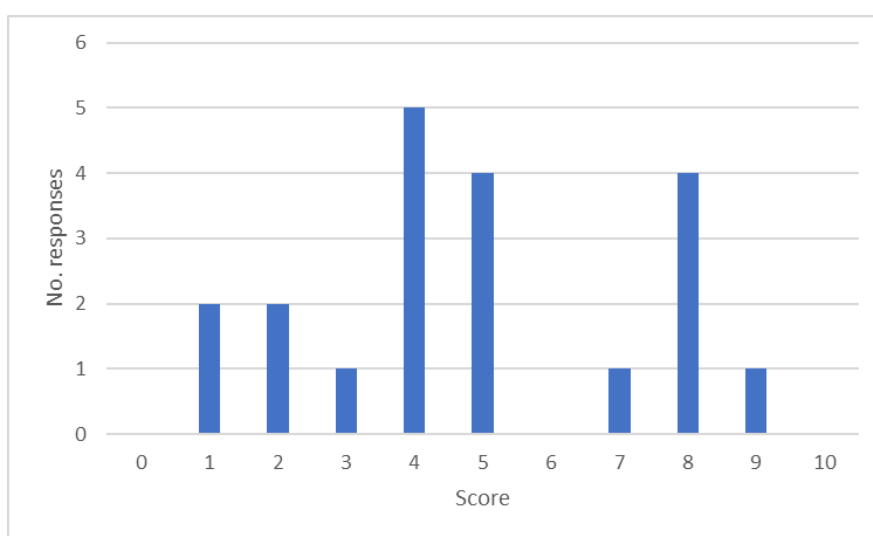
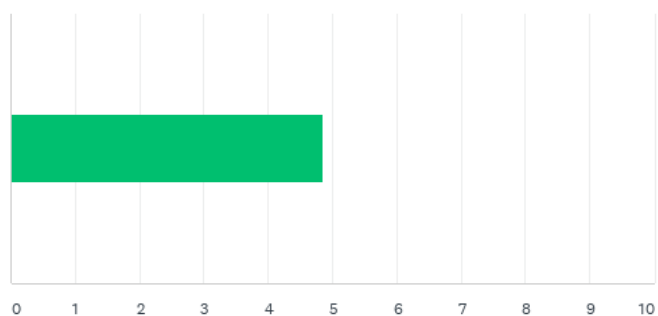


Q7 Tell us whether you agree or disagree with these statements Léirigh cé acu a n-aontaíonn tú, nó nach n-aontaíonn, leis na ráitis seo a leanas



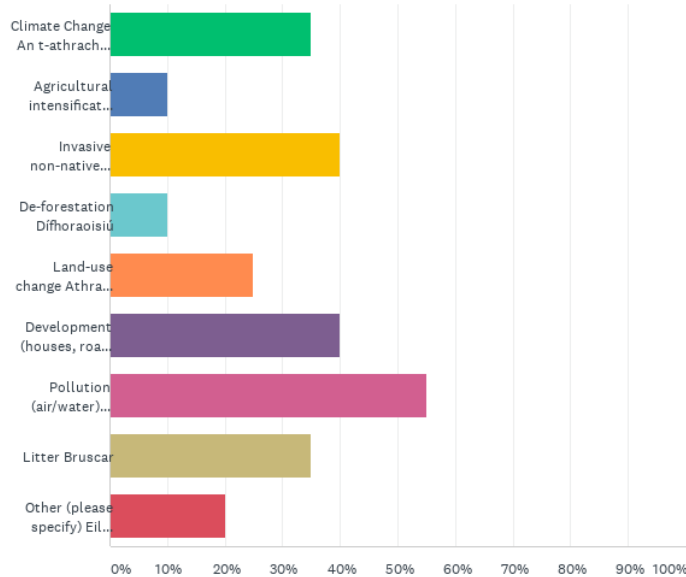
Q7 notes: typically this question asked in a wider Sample of the population skews significantly toward agreement and while this is reflected here also the strength of agreement may be, arguably, lower than in previous surveys (author pers. obs.)

Q8 Tell us how threatened or well protected you think native wildlife is in your local area Léirigh do thuiscint ar leibheál cosanta atá ag fiadhúlra dúchasach do cheantair féin.



Q8 notes: These charts show both the mean score and the spread of responses to this question and they indicate a general feeling that local biodiversity is inadequately protected. The range of responses though was from 1 to 9 but with only six of the 20 respondents scoring protection as being above 5.

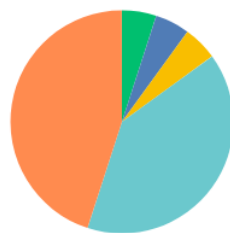
Q9 In your opinion what are the biggest threats to biodiversity (wildlife and nature) in your local area? (pick 3) I do bharúil féin cad iad na bagairtí is mó atá ann don bhithéagsúlacht (fiadhúlra agus nádúr) i do cheantar? (Roghnaigh 3 cinn)



Q9 notes: The range of threats to wildlife that people felt were the most important was wide. Broad scale national and international issues where there is high media coverage such as climate change and pollution were recognised as important alongside the very obvious and visual local issues of development and invasive species. Land use change is recognised internationally¹⁴ as the biggest biodiversity threat but locally this was not seen as a significant issue, possibly due to livelihoods depending on agriculture or possibly relating to a misperception around what this might constitute and possibly the apparent slow pace of current land-use change locally.

Q10 Tell us whether you agree or disagree with this statement *Léirigh cé acu a n-aontaíonn tú nó nach n-aontaíonn leis an raiteas seo*

*Our community should do more to protect and encourage biodiversity
Ba cheart don phobal níos mó a dhéanamh leis an bhithéagsúlacht a chosaint agus a spreagadh*

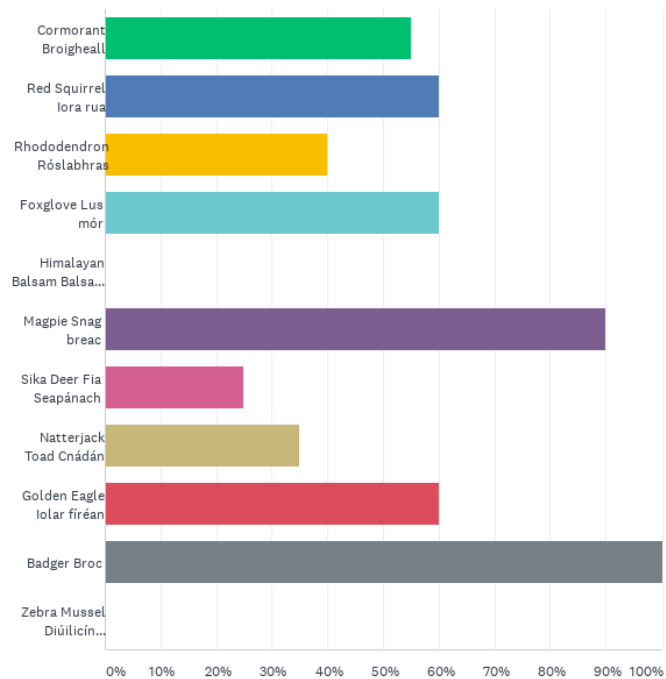


■ Strongly disagree (Gan aontú go láidir)
 ■ Disagree (Gan aontú)
 ■ Neither agree nor disagree (Ní aontaím ná ní aontaím)
 ■ Agree (Aontú)
 ■ Strongly agree (Aontú go láidir)

Q10 notes: Reflecting general agreement about the importance of biodiversity to quality of life in Q7 the responses to whether more should be done locally for biodiversity indicate strong agreement. This gives a good mandate for taking forward plans and initiatives for biodiversity where this can be achieved.

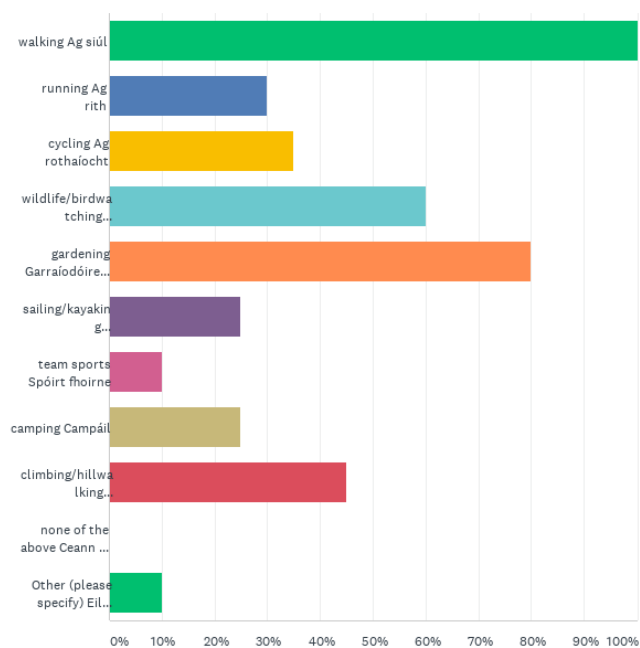
¹⁴ WWF Living planet report <https://livingplanet.panda.org/en-us/>

Q11 Tell us which of these species you believe are native to Ireland (mark all that apply) Léirigh cé acu de na speis seo atá dúshasach d'Eirinn (marcáil na cinn ábharacha)



Q11 notes: this question is a reflective indicator of the general level of knowledge around invasive species and indicates a good degree of understanding, notably around the specific local issue of Himalayan balsam and the risk of Zebra mussel in waterways.

Q12 Please tell us which outdoor activities you enjoy (check all that apply) Léirigh na gníomhaíochtaí lasmuigh a bhfuil dúil agat iontu (marcáil na cinn ábharacha)

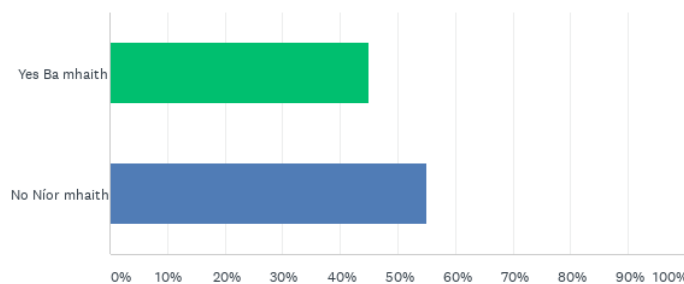


Q12 notes: exploring the level of engagement in biodiversity related activities the responses to this question indicate a high degree of outdoor activity. This should bring people into contact with biodiversity regularly and is mirrored by the responses to Q6

Q13 Is there anything you would like to add relating to wildlife/biodiversity? An bhfuil rud ar bith eile ar mhaith leat a chur leis seo a bhaineann le cúrsaí fiadhúlra / bithéagsúlachta?

Q13 notes: Individual responses are not shown, most indicated no further response. Some indicated a recognition that the issue of biodiversity is important. There were relatively few responses which related to suggestions or ideas around biodiversity enhancement though two respondents noted the opportunity of Tidy Towns as a positive option to further biodiversity in their area and another suggested closer links between the *Cill Uta* enterprise and local schools. One respondent noted the importance of communication in Irish and indicated dismay at use of anglicised placenames in the survey, another indicated the importance of maintaining landowner rights.

Q14 Would you be willing to discuss biodiversity at a workshop either online or on a walk? (if yes make sure you have added your contact details) Ar mhaith leat deis a ghlacadh le cúrsaí bithéagsúlachta a phlé ag céardlann, ar líne ná fiú, ar shiúlóid? (Más maith, cuir do chuid sonraí teagmhála leis seo)



Q14 notes: this question looked at the possibility of follow up and there was overall relatively low desire for further engagement on this issue

Appendix 2 datasets accessed – desktop study

- Irish Rare Birds Committee
- Commonage 2011
- Margaritifera Sensitive Areas
- Saltmarsh Monitoring Project 2011
- Landscape Conservation for Irish Bats (NBDC)
- NBDC Biodiversity Maps Reports:
 - Ballyness Bay SAC - Biodiversity Ireland - 2021-01 (intersect)
 - Ballyness Bay SAC - Biodiversity Ireland - 2021-01 (within)
 - An Fál Carrach to Meenlaragh SPA - Biodiversity Ireland - 2021-01 (intersect)
 - An Fál Carrach to Meenlaragh SPA - Biodiversity Ireland - 2021-01 (within)
 - GLEBE - Biodiversity Ireland - 2021-01 (intersect)
 - GLEBE - Biodiversity Ireland - 2021-01 (within)
 - CILL ULTA - Biodiversity Ireland - 2021-01 (intersect)
 - CILL ULTA - Biodiversity Ireland - 2021-01 (within)
 - B9131 - Biodiversity Ireland - 2021-03-21T18.49.21.811
 - B9132 - Biodiversity Ireland - 2021-03-21T18.49.08.508
 - B9133 - Biodiversity Ireland - 2021-03-21T18.48.45.675
 - B9231 - Biodiversity Ireland - 2021-03-21T18.49.44.716
 - B9232 - Biodiversity Ireland - 2021-03-21T18.50.18.341

NPWS site designation information:

Ballyness Bay proposed Natural Heritage Area (pNHA)

An Fál Carrach to Meenlaragh Special Protection Area (SPA)

- <https://www.npws.ie/protected-sites/spa/004149>

Ballyness Bay Special Area of Conservation (SAC)

- <https://www.npws.ie/protected-sites/sac/001090>

Appendix 3 Biodiversity records from NBDC database relevant to Cill Ulta townland

Feature name	Resolution	Species group	Species name	Record count	Date of last record	Dataset	Designation
B9232	1km square	annelid	<i>Eiseniella tetraedra</i>	2	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	annelid	<i>Glossiphonia complanata</i>	1	16/08/2006	River Biologists' Database (EPA)	
Cill Ulta	Townland	insect - beetle (Coleoptera)	7-spot Ladybird (<i>Coccinella septempunctata</i>)	1	03/07/2019	Ladybirds of Ireland	
B9232	1km square	insect - beetle (Coleoptera)	<i>Elmis aenea</i>	3	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	insect - beetle (Coleoptera)	<i>Limnius volckmari</i>	2	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	insect - beetle (Coleoptera)	<i>Oulimnius tuberculatus</i>	1	13/09/2007	River Biologists' Database (EPA)	
B9131	1km square	insect - butterfly	Painted Lady (<i>Vanessa cardui</i>)	1	02/07/2019	Butterflies of Ireland	
B9131 B9231	1km square	insect - butterfly	Ringlet (<i>Aphantopus hyperantus</i>)	3	03/07/2019	Butterflies of Ireland	
B9232	1km square	insect - butterfly	Speckled Wood (<i>Pararge aegeria</i>)	1	03/07/2019	Butterflies of Ireland	
B9232	1km square	insect - dragonfly (Odonata)	Common Blue Damselfly (<i>Enallagma cyathigerum</i>)	1	15/06/2019	Dragonfly Ireland 2019 to 2024	
B9231 B9232	1km square	insect - hymenopteran	Common Carder Bee (<i>Bombus (Thoracombeus) pascuorum</i>)	3	02/07/2019	Bees of Ireland	
B9232	1km square	insect - mayfly (Ephemeroptera)	<i>Baetis rhodani</i>	1	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	insect - mayfly (Ephemeroptera)	<i>Serratella ignita</i>	2	14/07/2009	River Biologists' Database (EPA)	
Cill Ulta	Townland	insect - true fly (Diptera)	<i>Eukiefferiella ilkleyensis</i>	1	12/08/1982	The Chironomidae (Diptera) of Ireland	
Cill Ulta	Townland	insect - true fly (Diptera)	<i>Potthastia gaedii</i>	1	12/08/1982	The Chironomidae (Diptera) of Ireland	
Cill Ulta	Townland	insect - true fly (Diptera)	<i>Rheocricotopus chalybeatus</i>	1	12/08/1982	The Chironomidae (Diptera) of Ireland	
Cill Ulta	Townland	insect - true fly (Diptera)	<i>Tanytarsus heusdensis</i>	1	12/08/1982	The Chironomidae (Diptera) of Ireland	

Cill Ulta	Townland	insect - true fly (Diptera)	Tvetenia verralli	1	12/08/1982	The Chironomidae (Diptera) of Ireland	
B9232	1km square	mollusc	Ancylus fluviatilis	3	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	spider (Araneae)	Garden Spider (Araneus diadematus)	1	05/07/2019	Citizen Science Spider Records for Ireland	
B9132	1km square	flowering plant	Butterbur (Petasites hybridus)	1	26/03/2019	Online Atlas of Vascular Plants 2012-2020	
B9132	1km square	flowering plant	Wood Sage (Teucrium scorodonia)	1	19/07/2019	Online Atlas of Vascular Plants 2012-2020	
B9231	1km square	flowering plant	Bog Asphodel (Narthecium ossifragum)	1	04/07/2019	Online Atlas of Vascular Plants 2012-2020	
B9232	1km square	flowering plant	Alternate Water-milfoil (Myriophyllum alterniflorum)	1	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Ash (Fraxinus excelsior)	1	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Bluebell (Hyacinthoides non-scripta)	1	13/04/2019	Online Atlas of Vascular Plants 2012-2020	
B9232	1km square	flowering plant	Branched Bur-reed (Sparganium erectum)	2	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Curled Pondweed (Potamogeton crispus)	2	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Herb-Robert (Geranium robertianum)	1	05/07/2019	Online Atlas of Vascular Plants 2012-2020	
B9232	1km square	flowering plant	Holly (Ilex aquifolium)	2	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Montbretia (Crocosmia pottsii x aurea = C. x crocosmiiflora)	3	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	flowering plant	Sycamore (Acer pseudoplatanus)	3	14/07/2009	River Biologists' Database (EPA)	Invasive Species Medium Impact
B9232	1km square	flowering plant	Water-cress (Rorippa nasturtium-aquaticum)	2	13/09/2007	River Biologists' Database (EPA)	
B9232	1km square	liverwort	Chiloscyphus polyanthos	1	13/09/2007	River Biologists' Database (EPA)	Least concern
B9232	1km square	moss	Alpine Water-moss (Fontinalis squamosa)	2	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	moss	Greater Water-moss (Fontinalis antipyretica)	3	14/07/2009	River Biologists' Database (EPA)	
B9232	1km square	moss	Long-beaked Water Feather-moss (Rhynchostegium riparioides)	1	14/07/2009	River Biologists' Database (EPA)	
B9133	1km square	marine mammal	Atlantic White-sided Dolphin (Lagenorhynchus acutus)	1	24/01/2007	IWDG Cetacean Strandings Database	Annex IV
B9133	1km square	marine mammal	Common Seal (Phoca vitulina)	1	28/02/2010	Atlas of Mammals in Ireland 2010-2015	Annex II Annex V

B9232	1km square	terrestrial mammal	Eurasian Badger (<i>Meles meles</i>)	1	14/08/2017	Mammals of Ireland 2016-2025	Wildlife Acts
B9232	1km square	bony fish (Actinopterygii)	Minnow (<i>Phoxinus phoxinus</i>)	1	14/07/2009	River Biologists' Database (EPA)	
B9132	1km square	bird	Eurasian Dotterel (<i>Charadrius morinellus</i>)	1	23/11/1980	Rare birds of Ireland	
B9133	1km square	bird	Barnacle Goose (<i>Branta leucopsis</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Bar-tailed Godwit (<i>Limosa lapponica</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I Amber List
B9133	1km square	bird	Black-headed Gull (<i>Larus ridibundus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Red List
B9133	1km square	bird	Brent Goose (<i>Branta bernicla</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Common Eider (<i>Somateria mollissima</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III Amber List
B9133	1km square	bird	Common Greenshank (<i>Tringa nebularia</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Common Redshank (<i>Tringa totanus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Red List
B9133	1km square	bird	Common Scoter (<i>Melanitta nigra</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III Red List
B9133	1km square	bird	Common Shelduck (<i>Tadorna tadorna</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Dunlin (<i>Calidris alpina</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I Amber List
B9133	1km square	bird	Eurasian Curlew (<i>Numenius arquata</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Red List
B9133	1km square	bird	Eurasian Oystercatcher (<i>Haematopus ostralegus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Eurasian Teal (<i>Anas crecca</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III Amber List
B9133	1km square	bird	Eurasian Wigeon (<i>Anas penelope</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III Amber List

B9133	1km square	bird	European Golden Plover (<i>Pluvialis apricaria</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I Annex II Annex III Red List
B9133	1km square	bird	Great Black-backed Gull (<i>Larus marinus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Great Cormorant (<i>Phalacrocorax carbo</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Great Northern Diver (<i>Gavia immer</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I
B9133	1km square	bird	Grey Heron (<i>Ardea cinerea</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	
B9133	1km square	bird	Grey Plover (<i>Pluvialis squatarola</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Herring Gull (<i>Larus argentatus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Red List
B9133	1km square	bird	Lesser Black-backed Gull (<i>Larus fuscus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Little Grebe (<i>Tachybaptus ruficollis</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Mallard (<i>Anas platyrhynchos</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III
B9133	1km square	bird	Mew Gull (<i>Larus canus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Mute Swan (<i>Cygnus olor</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List
B9133	1km square	bird	Northern Lapwing (<i>Vanellus vanellus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Red List
B9133	1km square	bird	Northern Pintail (<i>Anas acuta</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II Annex III Red List
B9133	1km square	bird	Red-breasted Merganser (<i>Mergus serrator</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex II
B9133	1km square	bird	Red-throated Diver (<i>Gavia stellata</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I Amber List
B9133	1km square	bird	Ringed Plover (<i>Charadrius hiaticula</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Amber List

B9133	1km square	bird	Ruddy Turnstone (<i>Arenaria interpres</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	
B9133	1km square	bird	Sanderling (<i>Calidris alba</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	
B9133	1km square	bird	Whooper Swan (<i>Cygnus cygnus</i>)	1	31/12/2001	Irish Wetland Birds Survey (I-WeBS) 1994-2001.	Annex I Amber List

Appendix 4 Biodiversity records from field survey

Botanical records

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	<i>Asplenium ruta-muraria</i>	Wall Rue	Cill Ulta	B9031	21/07/2020		sighting		Pteridophyte	
A Lauder	<i>Asplenium trichomanes</i>	Maidenhair spleenwort	Cill Ulta	B9031	21/07/2020		sighting		Pteridophyte	
A Lauder	<i>Cropterus dilatata</i>	Buckler Fern	Cill Ulta	B9132	14/08/2021		sighting		Pteridophyte	
A Lauder	<i>Equisetum fluviatile</i>	Water Horsetail	Cill Ulta	B9231	21/07/2020		sighting		Pteridophyte	
A Lauder	<i>Polygonum amphibium</i>	Amphibious Bistort	Cill Ulta	B9132	14/08/2020		sighting		Pteridophyte	
A Lauder	<i>Pteridium aquilinum</i>	Bracken	Cill Ulta	B9132	14/08/2020		sighting		Pteridophyte	
A Lauder	<i>Struthiopteris spicant</i>	Hard Fern	Cill Ulta	B9132	21/07/2020		sighting		Pteridophyte	
A Lauder	<i>Aegipodium podagraria</i>	Ground-elder	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Agropyron pungens</i>	Sea couch grass	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Agrostis capillaris</i>	Common Bent	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Agrostis stolonifera</i>	Creeping bent	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Alchemilla vulgaris</i> agg.	Lady's mantle	Cill Ulta	B9231	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>America maritima</i>	Thrift	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Ammophila arenaria</i>	Marram	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Ammophila arenaria</i>	Marram	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Anacamptis pyramidalis</i>	Pyramidal Orchid	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Anthoxanthum odoratum</i>	Sweet vernal grass	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Anthyllis vulneraria</i>	Kidney Vetch	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Arctium minus</i>	Lesser Burdock	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Arrhenatherum elatius</i>	Fasle Oat Grass	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Arum maculatum</i>	Lords and Ladies	Cill Ulta	B9231	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Briza media</i>	quaking grass	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Bromus hordeaceus</i>	Soft Brome	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Calluna vulgaris</i>	Heather	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Caltha palustris</i>	Marsh Marigold	Cill Ulta	B9231	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Campanula rotundifolia</i>	Harebell	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	<i>Cardamine pratensis</i>	Cuckooflower	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Centaurea nigra</i>	Knapweed	Cill Ulta	B9132	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Cerastium holosteoides</i>	Common Mouse-ear	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Chrysanthemum leucanthemum</i>	Oxeye daisy	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Cirsium arvense</i>	creeping thistle	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Cirsium palustre</i>	Marsh Thistle	Cill Ulta	B9231	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Cirsium vulgare</i>	Spear Thistle	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Convolvulus arvensis</i>	field bindweed	Cill Ulta	B9132	14/08/2020		sighting		Vascular Plant	
A Lauder	<i>Crataegus monogyna</i>	Hawthorn	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Crepis capillaris</i>	Smooth Hawksbeard	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Cyonosurus cristatus</i>	crested dogs tail	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Dactylis glomerata</i>	Cocks Foot	Cill Ulta	B9132	09/08/2020		sighting		Vascular Plant	
A Lauder	<i>Dactylorhiza fuchsii</i>	Common Spotted Orchid	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Dactylorhiza maculata</i>	Heath spotted orchid	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Dactylorhiza purpurella</i>	Northern Marsh Orchid	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Deschampsia flexuosa</i>	Wavy-hair grass	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Digitalis purpurea</i>	Foxglove	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Erica cinerea</i>	Bell Heather	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Euphorbia pparalias</i>	Sea Spurge	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Festuca rubra</i>	Red Fescue	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Galium palustre</i>	Marsh Bedstraw	Cill Ulta	B9231	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Galium saxatile</i>	Heath Bedstraw	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Galium verum</i>	Lady's Bedstraw	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Geranium robertianum</i>	Herb Robert	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Glechoma hederacea</i>	Ground Ivy	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Hedera helix</i>	Ivy	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Holcus Lanatus</i>	Yorkshire Fog	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Holcus mollis</i>	Creeping soft grass	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Hyacinthoides non-scriptus</i>	Bluebell	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Hypericum androsaemum</i>	Tutsan	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	<i>Hypericum perforatum</i>	Perforate St. John's Wort	Cill Ulta	B9132	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Ilex aquifolium</i>	Holly	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Iris pseudacorus</i>	Yellow Iris	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Juncus effusus</i>	Soft Rush	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>lamium purpureum</i>	Red Dead-nettle	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Lathyrus pratensis</i>	Meadow vetchling	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Lonicera periclymenum</i>	Honeysuckle	Cill Ulta	B9231	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Lotus corniculatus</i>	Common Birds-foot trefoil	Cill Ulta	B9132	09/08/2020		sighting		Vascular Plant	
A Lauder	<i>Lotus pedunculatus</i>	Greater Birds-foot trefoil	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Luzula campestris</i>	Field woodrush	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Luzula sylvatica</i>	Great woodrush	Cill Ulta	B9231	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Lythrum salicaria</i>	Purple Loosestrife	Cill Ulta	B9132	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Mentha aquatica</i>	Water Mint	Cill Ulta	B9231	11/08/2020		sighting		Vascular Plant	
A Lauder	<i>Molinia caerulea</i>	Purple Moor grass	Cill Ulta	B9130	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Narthecium ossifragum</i>	Bog Asphodel	Cill Ulta	B9130	09/08/2020		sighting		Vascular Plant	
A Lauder	<i>Oxalis acetosella</i>	Wood-sorrel	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Phalaris arundinacea</i>	Reed canary grass	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Phragmites australis</i>	Common Reed	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Pilosella arautiacum</i>	Orange Hawkweed	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Plantago lanceolata</i>	Ribwort plantain	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Plantago maritima</i>	Sea plantain	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Poa annua</i>	Annual meadow grass	Cill Ulta	B9132	14/08/2021		sighting		Vascular Plant	
A Lauder	<i>Poa trivialis</i>	Rough meadow grass	Cill Ulta	B9031	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Polygala serpyllifolia</i>	Heath Milkwort	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	<i>Polygonum persicaria</i>	redshank	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Potentilla erecta</i>	Tormentil	Cill Ulta	B9130	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Prunella vulgaris</i>	Selfheal	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Prunus spinosa</i>	Blackthorn	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Puccinellia maritima</i>	Common Saltmarsh grass	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	<i>Ranunculus acris</i>	Meadow buttercup	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Ranunculus repens	Creeping buttercup	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Rubus fruticosus agg.	Bramble	Cill Ulta	B9132	09/08/2020		sighting		Vascular Plant	
A Lauder	Rumex acetosa	common sorrel	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Rumex acetosella	sheeps sorrel	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Sambucus nigra	Elder	Cill Ulta	B9132	09/08/2020		sighting		Vascular Plant	
A Lauder	Senecio jacobea	Ragwort	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Senecio vulgaris	Groundsel	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Silene dioica	Red Champion	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	Silene maritima	Sea champion	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Smyrniium olustratum	Alexanders	Cill Ulta	B9031	09/08/2020		sighting		Vascular Plant	
A Lauder	Sorbus aucuparia	Rowan	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	Stellaria holostea	Greater stitchwort	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Stellaria media	common chickweed	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Succisa pratensis	Devil's-Bit Scabious	Cill Ulta	B9132	09/08/2020		sighting		Vascular Plant	
A Lauder	Symphytum officinale	Common Comfrey	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Taraxacum officinale agg.	Dandelion	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Thymus drucei	Wild thyme	Cill Ulta	B9130	12/08/2020		sighting		Vascular Plant	
A Lauder	Trifolium repens	white clover	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Trifolium pratense	red clover	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Tripleurospermum inodorum	Scentless Mayweed	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Tripolium pannonicum	Sea aster	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Ulex Europaeus	Gorse	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Urtica dioica	Common Nettle	Cill Ulta	B9132	21/07/2020		sighting		Vascular Plant	
A Lauder	Veronica chamaedrys	Germander speedwell	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Veronica officinalis	Heath speedwell	Cill Ulta	B9031	18/06/2021		sighting		Vascular Plant	
A Lauder	Veronica persica	Common field speedwell	Cill Ulta	B9132	18/06/2021		sighting		Vascular Plant	
A Lauder	Vicia cracca	Tufted Vetch	Cill Ulta	B9131	21/07/2020		sighting		Vascular Plant	
A Lauder	Viola rvininiana	Common violet	Cill Ulta	B9231	21/07/2020		sighting		Vascular Plant	

Dragonflies and damselflies

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Enallagma cyathigerum	Common Blue Damselfly	Cill Ulta	B9132	21/07/2020		sighting		Damselfly	
A Lauder	Ischnura elegans	Blue-tailed damselfly	Cill Ulta	B9132	21/07/2020		sighting		Damselfly	
A Lauder	Lestes sponsa	Common Emerald Damselfly	Cill Ulta	B9132	21/07/2020		sighting		Damselfly	
A Lauder	Aeshna grandis	Brown Hawker	Cill Ulta	B9231	11/08/2020		sighting		Dragonfly	
A Lauder	Sympetrum striolatum	Common Darter	Cill Ulta	B9132	11/08/2020		sighting		Dragonfly	

Butterflies and moths

Butterflies

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Aglais urticae	Small Tortoiseshell	Cill Ulta	B9132	14/08/2020		sighting	2	Butterfly	
A Lauder	Aphantopus aparantus	Ringlet	Cill Ulta	B9132	21/07/2020		sighting	6	Butterfly	
A Lauder	Inachis io	Peacock	Cill Ulta	B9132	14/08/2020		sighting	3	Butterfly	
A Lauder	Lycaena phlaeas	Small Copper	Cill Ulta	B9132	14/08/2020		sighting	2	Butterfly	
A Lauder	Maniola jurtina	Meadow Brown	Cill Ulta	B9132	21/07/2020		sighting	4	Butterfly	
A Lauder	Pararge aegeria	Speckled Wood	Cill Ulta	B9132	18/06/2020		sighting	2	Butterfly	
A Lauder	Pieris brassicae	Large White	Cill Ulta	B9132	14/08/2020		sighting	1	Butterfly	
A Lauder	Pieris napi	Green-veined White	Cill Ulta	B9132	18/06/2021		sighting	8	Butterfly	
A Lauder	Pieris rapae	Small white	Cill Ulta	B9132	18/06/2021		sighting	2	Butterfly	
A Lauder	Polyommatus icarus	Common Blue	Cill Ulta	B9132	14/08/2021		sighting	3	Butterfly	
A Lauder	Vanessa atalanta	Red Admiral	Cill Ulta	B9132	14/08/2020		sighting	6	Butterfly	
A Lauder	Vanessa cardui	Painted Lady	Cill Ulta	B9132	14/08/2020		sighting	1	Butterfly	

Moths

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Agrotis exclamationis	Heart & Dart	Cill Ulta	B9132	18/06/2021		Light trap 20W actinic			Moth
A Lauder	Apamea monoglypha	Dark Arches	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	6		Moth
A Lauder	Autographa gamma	silver-Y	Cill Ulta	B9132	14/08/2020		sighting	3		Moth
A Lauder	Chloroclysta truncata	Common Marbled Carpet	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	1		Moth
A Lauder	Diachrysia chrysitis	Burnished Brass	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	1		Moth
A Lauder	Euxoa tritici	White-line Dart	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	3		Moth
A Lauder	Hydraecia micacea	Rosy Rustic	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	8		Moth
A Lauder	Idaea biselata	Small Fan-footed Wave	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	4		Moth
A Lauder	Lacanobia thalassina	Pale shouldered Brocade	Cill Ulta	B9132	18/06/2021	C Osthoff	Light trap 20W actinic			Moth
A Lauder	Mesapamea secalis agg.	Common Rustic agg.	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	12		Moth
A Lauder	Mesoligia literosa	Rosy Minor	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	8		Moth
A Lauder	Mythimna impura	Smoky Wainscot	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	5		Moth
A Lauder	Noctua comes	Lesser Yellow Underwing Lesser Broad-bordered Yellow	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	4		Moth
A Lauder	Noctua janthe	Underwing	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	6		Moth
A Lauder	Noctua pronuba	Large Yellow Underwing	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	9		Moth
A Lauder	Spilosoma lubricipeda	White Ermine	Cill Ulta	B9132	18/06/2021		Light trap 20W actinic			Moth
A Lauder	Xanthia icteritia	Sallow	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	1		Moth
A Lauder	Xanthorhoe ferrugata	Dark-barred Twin-spot Carpet	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	2		Moth
A Lauder	Xestia baja	Dotted Clay	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	4		Moth
A Lauder	Xestia xanthographa	Square-spot Rustic	Cill Ulta	B9132	14/08/2020	C Osthoff	Light trap 20W actinic	2		Moth
A Lauder	Zygaena filipendulae	six-spot burnet	Cill Ulta	B9132	14/08/2020		sighting	20 +		Moth

Bumblebees

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Bombus hortorum	Garden Bumblebee	Cill Ulta	B9132	14/08/2020		sighting	5+	Bumblebee	
A Lauder	Bombus lapidarius	Red-tailed Bumblebee	Cill Ulta	B9132	18/06/2021		sighting	1	Bumblebee	
A Lauder	Bombus lucorum	White-tailed Bumblebee	Cill Ulta	B9132	18/06/2021		sighting	20+	Bumblebee	
A Lauder	Bombus muscorum	Moss Carder Bee	Cill Ulta	B9132	14/08/2020		sighting	2	Bumblebee	
A Lauder	Bombus pascuorum	Common Carder Bee	Cill Ulta	B9132	14/08/2020		sighting	8+	Bumblebee	

Hoverflies

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Cheilosia illustrata		Cill Ulta	B9231	12/08/2020		sighting		Hoverfly	
A Lauder	Episyrphus balteatus		Cill Ulta	B9132	12/08/2020		sighting		Hoverfly	
A Lauder	Eristalis pertinax		Cill Ulta	B9132	12/08/2020		sighting		Hoverfly	
A Lauder	Helophilus pendulus		Cill Ulta	B9231	21/07/2020		sighting		Hoverfly	
A Lauder	Scaeva pyrastris		Cill Ulta	B9132	12/08/2020		sighting		Hoverfly	
A Lauder	Syrphus ribesii		Cill Ulta	B9132	12/08/2020		sighting		Hoverfly	

Birds

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Accipiter nisus	Sparrowhawk	Cill Ulta	B9031	21/07/2020		sighting	1	Bird	
A Lauder	Aegithalos caudatus	Long-tailed Tit	Cill Ulta	B9132	21/07/2020		sighting	6	Bird	
A Lauder	Alauda arvensis	Skylark	Cill Ulta	B9132	18/06/2021		sighting	3	Bird	amber list
A Lauder	Alcedo atthis	Kingfisher	Cill Ulta	B9231	11/08/2020		sighting	1	Bird	amber list
A Lauder	Anas platyrhynchos	Mallard	Cill Ulta	B9231	08/08/2020		sighting	12	Bird	amber list

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Anthus petrosus	Rock Pipit	Cill Ulta	B9031	21/07/2020		sighting	3	Bird	
A Lauder	Anthus pratensis	Meadow Pipit	Cill Ulta	B9132	21/07/2020		sighting	12	Bird	red list
A Lauder	Apus apus	Swift	Cill Ulta	B9132	21/07/2020		sighting	7	Bird	red list
A Lauder	Ardea cinerea	Grey Heron	Cill Ulta	B9131	21/07/2020		sighting	3	Bird	
A Lauder	Buteo buteo	Common Buzzard	Cill Ulta	B9130	21/07/2020		sighting	2	Bird	
A Lauder	Calidris alpina	Dunlin	Cill Ulta	B9132	21/07/2020		sighting	28	Bird	red list
A Lauder	Carduelis cabaret	Lesser Redpoll	Cill Ulta	B9231	21/07/2020		sighting	2	Bird	
A Lauder	Carduelis cannabina	Linnet	Cill Ulta	B9132	21/07/2020		sighting	4	Bird	amber list
A Lauder	Carduelis carduelis	Goldfinch	Cill Ulta	B9132	18/06/2021		sighting	5	Bird	
A Lauder	Carduelis chloris	Greenfinch	Cill Ulta	B9131	21/07/2020		sighting	2	Bird	amber list
A Lauder	Charadrius hiaticula	Ringed Plover	Cill Ulta	B9132	14/08/2020		sighting	3	Bird	amber list
A Lauder	Chroicocephalus ridibundus	Black-headed Gull	Cill Ulta	B9132	21/07/2020		sighting	18	Bird	amber list
A Lauder	Cinclus cinclus	Dipper	Cill Ulta	B9231	11/08/2020		sighting	2	Bird	
A Lauder	Columba livia	Rock Dove	Cill Ulta	B9132	18/06/2021		sighting	4	Bird	
A Lauder	Columba palumbus	Woodpigeon	Cill Ulta	B9132	21/07/2020		sighting		Bird	
A Lauder	Corvus cornix	Hooded Crow	Cill Ulta	B9132	08/08/2020		sighting		Bird	
A Lauder	Corvus frugilegus	Rook	Cill Ulta	B9031	18/06/2021		sighting		Bird	
A Lauder	Corvus monedula	Jackdaw	Cill Ulta	B9132	21/07/2020		sighting		Bird	
A Lauder	Crex crex	Corncrake	Cill Ulta	B9132	18/06/2021		sighting	3	Bird	red list
A Lauder	Cyanistes caeruleus	Blue Tit	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Delichon urbica	House Martin	Cill Ulta	B9131	08/08/2020		sighting		Bird	amber list
A Lauder	Egretta garzetta	Little Egret	Cill Ulta	B9132	08/08/2020		sighting	2	Bird	
A Lauder	Emberiza schoeniclus	Reed Bunting	Cill Ulta	B9132	14/08/2020		sighting	1	Bird	
A Lauder	Erithacus rubecula	Robin	Cill Ulta	B9130	18/06/2021		sighting		Bird	
A Lauder	Falco peregrinus	Peregrine	Cill Ulta	B9132	18/06/2021		sighting	1	Bird	
A Lauder	Falco tinnunculus	Kestrel	Cill Ulta	B9130	21/07/2020		sighting		Bird	red list
A Lauder	Fringilla coelebs	Chaffinch	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Gallinago gallinago	Snipe	Cill Ulta	B9231	11/08/2021		sighting	1	Bird	red list
A Lauder	Gavia stellata	Red-throated Diver	Cill Ulta	B9132	14/08/2020		sighting	2	Bird	amber list
A Lauder	Haematopus ostralegus	Oystercatcher	Cill Ulta	B9132	18/06/2021		sighting	10	Bird	red list

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Hirundo rustica	Swallow	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Larus argentatus	Herring Gull	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Larus canus	Common Gull	Cill Ulta	B9132	21/07/2020		sighting	16	Bird	amber list
A Lauder	Larus fuscus	Lesser Black-backed Gull	Cill Ulta	B9132	08/08/2020		sighting		Bird	amber list
A Lauder	Larus marinus	Great Black-backed Gull	Cill Ulta	B9132	21/07/2020		sighting		Bird	
A Lauder	Motacilla alba	Pied Wagtail	Cill Ulta	B9132	18/06/2021		sighting		Bird	
A Lauder	Motacilla cinerea	Grey Wagtail	Cill Ulta	B9231	11/08/2020		sighting	6	Bird	red list
A Lauder	Numenius arquata	Curlew	Cill Ulta	B9132	21/07/2020		sighting	32	Bird	red list
A Lauder	Oenanthe oenanthe	Northern Wheatear	Cill Ulta	B9132	18/06/2021		sighting	1	Bird	amber list
A Lauder	Parus major	Great Tit	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Passer domesticus	House Sparrow	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Periparus ater	Coal Tit	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Phalacrocorax carbo	Cormorant	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Phasianus colchicus	Pheasant	Cill Ulta	B9132	18/06/2021		sighting		Bird	
A Lauder	Phylloscopus collybita	Chiffchaff	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Phylloscopus trochilus	Willow Warbler	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Pica pica	Magpie	Cill Ulta	B9132	08/08/2020		sighting		Bird	
A Lauder	Prunella modularis	Duncock	Cill Ulta	B9131	18/06/2021		sighting		Bird	
A Lauder	Pyrrhula pyrrhula	Bullfinch	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Regulus regulus	Goldcrest	Cill Ulta	B9131	18/06/2021		sighting		Bird	amber list
A Lauder	Riparia riparia	Sand Martin	Cill Ulta	B9231	18/06/2021		sighting		Bird	amber list
A Lauder	Somateria mollissima	Eider	Cill Ulta	B9132	21/07/2020		sighting	6	Bird	red list
A Lauder	Sterna hirundo	Common Tern	Cill Ulta	B9132	21/07/2020		sighting	2	Bird	amber list
A Lauder	Sterna paradisaea	Arctic Tern	Cill Ulta	B9132	21/07/2020		sighting	4	Bird	amber list
A Lauder	Sterna sandvicensis	Sandwich Tern	Cill Ulta	B9132	18/06/2021		sighting	11	Bird	amber list
A Lauder	Streptopelia decaocto	Collared Dove	Cill Ulta	B9031	18/06/2021		sighting	2	Bird	
A Lauder	Sturnus vulgaris	Starling	Cill Ulta	B9132	21/07/2020		sighting		Bird	amber list
A Lauder	Sylvia atricapilla	Blackcap	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Sylvia communis	Whitethroat	Cill Ulta	B9132	21/07/2020		sighting		Bird	
A Lauder	Tadorna tadorna	Shelduck	Cill Ulta	B9132	18/06/2021		sighting	2	Bird	amber list

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Tringa hypoleucos	Common Sandpiper	Cill Ulta	B9132	16/08/2020		sighting	1	Bird	amber list
A Lauder	Tringa totanus	Redshank	Cill Ulta	B9132	14/08/2020		sighting	4	Bird	red list
A Lauder	troglodytes troglodytes	Wren	Cill Ulta	B9132	21/07/2020		sighting		Bird	
A Lauder	Turdus merula	Blackbird	Cill Ulta	B9131	21/07/2020		sighting		Bird	
A Lauder	Turdus philomelus	Song Thrush	Cill Ulta	B9231	18/06/2021		sighting		Bird	
A Lauder	Turdus viscivorus	Mistle Thrush	Cill Ulta	B9132	14/08/2020		sighting		Bird	
A Lauder	Vanellus vanellus	Lapwing	Cill Ulta	B9231	08/08/2020		sighting	10	Bird	red list

Mammals

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Halichoerus grypus	Grey Seal	Cill Ulta	B9132	21/07/2020		sighting		Mammal	
A Lauder	Lepus timidus (ssp. hibernicus)	Irish Hare	Cill Ulta	B9130	21/07/2020		sighting		Mammal	
A Lauder	Lutra lutra	Otter	Cill Ulta	B9231	11/08/2020		signs		Mammal	spraint by bridge
A Lauder	Oryctolagus cuniculus	Rabbit	Cill Ulta	B9130	11/08/2020		sighting		Mammal	
A Lauder	Phoca vitulina	Common Seal	Cill Ulta	B9132	21/07/2020		sighting		Mammal	

Invasive species

Recorder Name	Species Name	Other name	Location name	Grid Reference	Date	Determiner Name	Record type	Count	Group	Comment
A Lauder	Petasites fragrans	Winter Heliotrope	Cill Ulta	B9132	21/07/2020		sighting		Invasive	
A Lauder	Fallopia japonica	Japanaese knotweed	Cill Ulta	B9132	11/08/2020		sighting		Invasive	
A Lauder	Impatiens glandulifera	Himalayan Balsam	Cill Ulta	B9231	11/08/2020		sighting		Invasive	
A Lauder	Crocsmia x crocosmiiflora	Monbretia	Cill Ulta	B9231	11/08/2020		sighting		Invasive	
A Lauder	Rhododendron ponticum	Rhododendron	Cill Ulta	B9231	11/08/2020		sighting		Invasive	

Appendix 5 Birds - breeding bird evidence codes

Non-breeding	
F	Flying over
M	Species observed but suspected to be still on M igration
U	Species observed but suspected to be s U mmerring non-breeder
Possible breeder	
H	Species observed in breeding season in suitable nesting H abitat
S	S inging male present (or breeding calls heard) in breeding season in suitable breeding habitat
Probable breeding	
P	P air observed in suitable nesting habitat in breeding season
T	Permanent T erritory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more part at the same place or many individuals on one day
D	Courtship and D isplay (judged to be in or near potential breeding habitat; be cautious with wildfowl)
N	Visiting probable N est site
A	A gitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby
I	Brood patch on adult examined in the hand, suggesting I ncubation
B	Nest B uilding or excavating nest-hole
Confirmed breeding	
DD	D istraction- D isplay or injury feigning
UN	U sed N est or eggshells found (occupied or laid within period of survey)
FL	Recently F ledged young (nidicolous species) or downy young (nidifugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.
ON	Adults entering or leaving nest-site in circumstances indicating O ccupied N est (including high nests or nest holes, the contents of which can not be seen) or adults seen incubating
FF	Adult carrying F aecal sac or F ood for young
NE	N est containing E ggs
NY	N est with Y oung seen or heard

Appendix 6 Habitat units table

Object ID (GIS ref)	Area (Ha)	Total Area (Ha)	Fossitt Code	Date surveyed	Habitat name	Summary habitat & Comments
49	1.48	8.46	BC1	21/07/20	Crop	Arable & horticultural crops
45	1.86		BC1	21/07/20	Crop	
47	2.02		BC1	21/07/20	Crop	
8	3.11		BC2	21/07/20	Crop	
48	0.09	2.62	BL3	21/07/20	Built land	Built land
9	1.94		BL3	21/07/20	Built land	
185	0.59		CC1	10/08/20	Pier	
38	2.52	2.52	CD3	21/07/20	Fixed dunes	Fixed dunes (modified)
29	2.34	2.34	CD6	21/07/20	Machair	Machair (characteristics of/modified)
179	0.11	8.77	CM2	10/08/20	Upper saltmarsh	Saltmarsh
178	0.17		CM2	10/08/20	Upper saltmarsh	
187	0.37		CM2	10/08/20	Upper saltmarsh	
35	0.68		CM2	21/07/20	Upper saltmarsh	
30	1.19		CM2	21/07/20	Upper saltmarsh	
37	3.00		CM2	21/07/20	Upper saltmarsh	
200	0.25		CM2/GS3	10/08/20	Upper saltmarsh/dry humid acid grass	
79	3.00		CM2/GS4	21/07/20	Upper saltmarsh/wet grassland	
201	0.56	0.56	CW2	10/08/20	Tidal river	Tidal section of river
39	0.06	0.29	FL8	21/07/20	Artificial pond	Ponds
40	0.23		FL8	21/07/20	Artificial pond	
87	0.19	0.68	FS1	21/07/20	Reed & large sedge swamp	Reedbeds
183	0.49		FS1	10/08/20	Reed & large sedge swamp	
203	0.68	2.22	FW1	09/08/20	Eroding/upland river	River
204	1.54		FW1	09/08/20	Eroding/upland river	
130	0.39	190.46	GA1	09/08/20	Improved agricultural grassland	Improved or highly modified grassland types
164	0.63		GA1	10/08/20	Improved agricultural grassland	
5	0.71		GA1	21/07/20	Improved agricultural grassland	
135	0.81		GA1	09/08/20	Improved agricultural grassland	
152	0.83		GA1	10/08/20	Improved agricultural grassland	
146	0.92		GA1	10/08/20	Improved agricultural grassland	
161	1.13		GA1	10/08/20	Improved agricultural grassland	
156	1.14		GA1	10/08/20	Improved agricultural grassland	
163	1.23		GA1	10/08/20	Improved agricultural grassland	

Object ID (GIS ref)	Area (Ha)	Total Area (Ha)	Fossitt Code	Date surveyed	Habitat name	Summary habitat & Comments
111	1.31		GA1	09/08/20	Improved agricultural grassland	
159	1.31		GA1	10/08/20	Improved agricultural grassland	
158	1.33		GA1	10/08/20	Improved agricultural grassland	
89	1.41		GA1	21/07/20	Improved agricultural grassland	
160	1.41		GA1	10/08/20	Improved agricultural grassland	
93	1.59		GA1	21/07/20	Improved agricultural grassland	
115	1.61		GA1	09/08/20	Improved agricultural grassland	
169	1.63		GA1	10/08/20	Improved agricultural grassland	
112	1.66		GA1	09/08/20	Improved agricultural grassland	
113	1.71		GA1	09/08/20	Improved agricultural grassland	
157	1.73		GA1	10/08/20	Improved agricultural grassland	
67	1.77		GA1	21/07/20	Improved agricultural grassland	
66	1.81		GA1	21/07/20	Improved agricultural grassland	
70	1.84		GA1	21/07/20	Improved agricultural grassland	
65	1.97		GA1	21/07/20	Improved agricultural grassland	
2	1.99		GA1	21/07/20	Improved agricultural grassland	
62	2.08		GA1	21/07/20	Improved agricultural grassland	
1	2.12		GA1	21/07/20	Improved agricultural grassland	
3	2.15		GA1	21/07/20	Improved agricultural grassland	
126	2.16		GA1	09/08/20	Improved agricultural grassland	
60	2.25		GA1	21/07/20	Improved agricultural grassland	
90	2.26		GA1	21/07/20	Improved agricultural grassland	
59	2.32		GA1	21/07/20	Improved agricultural grassland	
162	2.38		GA1	10/08/20	Improved agricultural grassland	
118	2.45		GA1	09/08/20	Improved agricultural grassland	
52	2.59		GA1	21/07/20	Improved agricultural grassland	
147	2.94		GA1	10/08/20	Improved agricultural grassland	
68	3.02		GA1	21/07/20	Improved agricultural grassland	
92	3.08		GA1	21/07/20	Improved agricultural grassland	
54	3.17		GA1	21/07/20	Improved agricultural grassland	
56	3.19		GA1	21/07/20	Improved agricultural grassland	
129	3.23		GA1	09/08/20	Improved agricultural grassland	

Object ID (GIS ref)	Area (Ha)	Total Area (Ha)	Fossitt Code	Date surveyed	Habitat name	Summary habitat & Comments
55	3.39		GA1	21/07/20	Improved agricultural grassland	
53	3.63		GA1	21/07/20	Improved agricultural grassland	
109	3.71		GA1	09/08/20	Improved agricultural grassland	
64	3.74		GA1	21/07/20	Improved agricultural grassland	
85	3.78		GA1	21/07/20	Improved agricultural grassland	
119	3.79		GA1	09/08/20	Improved agricultural grassland	
110	3.84		GA1	09/08/20	Improved agricultural grassland	
145	4.13		GA1	10/08/20	Improved agricultural grassland	
151	4.23		GA1	10/08/20	Improved agricultural grassland	
80	4.48		GA1	21/07/20	Improved agricultural grassland	
61	4.49		GA1	21/07/20	Improved agricultural grassland	
88	5.09		GA1	21/07/20	Improved agricultural grassland	
144	5.12		GA1	10/08/20	Improved agricultural grassland	
128	5.15		GA1	09/08/20	Improved agricultural grassland	
57	5.21		GA1	21/07/20	Improved agricultural grassland	
117	5.93		GA1	09/08/20	Improved agricultural grassland	
123	5.98		GA1	09/08/20	Improved agricultural grassland	
131	6.63		GA1	09/08/20	Improved agricultural grassland	
155	6.82		GA1	10/08/20	Improved agricultural grassland	
28	2.29		GA1/CD6	21/07/20	Improved agricultural grassland/Machair	
27	6.41		GA1/CD6	21/07/20	Improved agricultural grassland/Machair	
94	7.69		GA1/GS3	09/08/20	Improved/humid acid grassland	
153	9.65		GA1/GS3	10/08/20	Improved/humid acid grassland	
31	0.07	1.40	GS1	21/07/20	Dry neutral grassland	Dry grassland (neutral - calcareous, semi- improved)
33	0.22		GS1	21/07/20	Dry neutral grassland	
32	0.22		GS1	21/07/20	Dry neutral grassland	
171	0.54		GS1/WS1	10/08/20	Dry grassland/scrub	
76	0.35		GS2	21/07/20	Dry Meadows/verges	
174	0.26	40.88	GS3	10/08/20	Dry-humid acid grassland	Dry-humid acid grassland (dry)
190	0.28		GS3	10/08/20	Dry-humid acid grassland	
4	0.33		GS3	21/07/20	Dry-humid acid grassland	
209	0.34		GS3	10/08/20	Dry-humid acid grassland	
134	0.74		GS3	09/08/20	Dry-humid acid grassland	
191	0.93		GS3	10/08/20	Dry-humid acid grassland	

Object ID (GIS ref)	Area (Ha)	Total Area (Ha)	Fossitt Code	Date surveyed	Habitat name	Summary habitat & Comments
170	1.66		GS3	10/08/20	Dry-humid acid grassland	
71	1.69		GS3	21/07/20	Dry-humid acid grassland	
138	2.15		GS3	10/08/20	Dry-humid acid grassland	
72	3.51		GS3	21/07/20	Dry-humid acid grassland	
96	3.73		GS3	09/08/20	Dry-humid acid grassland	
83	7.77		GS3	21/07/20	Dry-humid acid grassland	
149	8.96		GS3	10/08/20	Dry-humid acid grassland	
225	1.14		GS3/GS4	10/08/20	Dry-humid acid grassland/wet grassland	
223	7.29		GS3/GS4	10/08/20	Dry-humid acid grassland/wet grassland	
69	0.10		GS3/WS1	21/07/20	Dry-humid acid grassland/scrub	
73	0.77		64.24	GS4	21/07/20	
213	0.82	GS4		10/08/20	Wet grassland	
114	0.90	GS4		09/08/20	Wet grassland	
122	0.93	GS4		09/08/20	Wet grassland	
102	0.95	GS4		09/08/20	Wet grassland	
136	1.12	GS4		09/08/20	Wet grassland	
106	1.33	GS4		09/08/20	Wet grassland	
137	1.54	GS4		09/08/20	Wet grassland	
116	1.63	GS4		09/08/20	Wet grassland	
99	1.92	GS4		09/08/20	Wet grassland	
101	2.15	GS4		09/08/20	Wet grassland	
105	2.56	GS4		09/08/20	Wet grassland	
100	3.63	GS4		09/08/20	Wet grassland	
103	3.67	GS4		09/08/20	Wet grassland	
95	5.14	GS4		09/08/20	Wet grassland	
107	5.30	GS4		09/08/20	Wet grassland	
98	5.58	GS4		09/08/20	Wet grassland	
154	5.78	GS4		10/08/20	Wet grassland	
97	7.44	GS4		09/08/20	Wet grassland	
108	8.88	GS4		09/08/20	Wet grassland	
78	2.18	GS4/CM2	21/07/20	Wet grassland/upper saltmarsh		
214	1.44	22.12	HH1/GS3	10/08/20	Dry Heath/acid grassland	Heathland (mainly wet heath)
140	9.43		HH3	10/08/20	Wet Heath	
132	11.24		HH3	09/08/20	Wet Heath	
208	0.21	155.42	LR3	10/08/20	Sheltered rocky shore	shoreline and intertidal habitats
207	0.24		LS3	10/08/20	Sheltered rocky shore	
197	8.08		LS3	10/08/20	Sheltered rocky shore	
198	73.67		LS3	10/08/20	Sheltered rocky shore	
36	0.01		LS4	21/07/20	Mixed substrate shore	
196	23.83		LS4	10/08/20	Mixed substrate shore	
192	48.12		LS5	10/08/20	Mixed sediment shore	

Object ID (GIS ref)	Area (Ha)	Total Area (Ha)	Fossitt Code	Date surveyed	Habitat name	Summary habitat & Comments
205	1.26		MW4	10/08/20	Estuaries	
222	0.18	207.71	NC		Not covered	Not surveyed
24	0.97		NC		Not covered	
143	1.80		NC		Not covered	
22	3.27		NC		Not covered	
6	4.31		NC		Not covered	
58	5.99		NC		not covered	
20	13.76		NC		Not covered	
210	177.43		NC		Not covered	
46	0.06		0.80	Rud	21/07/20	
44	0.07	Rud		21/07/20	Ruderal/rough ground	
168	0.67	Rud		10/08/20	Ruderal/rough ground	
77	1.38	5.40	WD1	21/07/20	Broad-leaved woodland (mixed)	Planted woodland
43	3.85		WD1/WS1	21/07/20	Broad-leaved woodland (mixed)/ & scrub	
50	0.08		WL2	21/07/20	Tree line/linear woodland	
219	0.09		WL2	10/08/20	Tree line/linear woodland	
81	25.74	29.29	WN2	21/07/20	Oak-ash-hazel woodland	semi-natural woodland
176	1.09		WN5	10/08/20	Riparian woodland	
173	2.47		WN5/WD 2	10/08/20	Riparian/mixed BL/conifer woodland	
121	0.10	38.37	WS1	09/08/20	Scrub	Scrub habitats
104	0.26		WS1	09/08/20	Scrub	
91	0.27		WS1	21/07/20	Scrub	
142	0.32		WS1	10/08/20	Scrub	
181	0.49		WS1	10/08/20	Scrub	
218	0.53		WS1	10/08/20	Scrub	
84	0.63		WS1	21/07/20	Scrub	
175	0.83		WS1	10/08/20	Scrub	
51	0.84		WS1	21/07/20	Scrub	
120	0.84		WS1	09/08/20	Scrub	
75	1.32		WS1	21/07/20	Scrub	
150	2.19		WS1	10/08/20	Scrub	
217	3.48		WS1	10/08/20	Scrub	
141	7.27		WS1	10/08/20	Scrub	
172	9.14		WS1	10/08/20	Scrub	
184	0.34		WS1/GS2	10/08/20	Scrub/dry meadows	
139	1.12		WS1/GS4	10/08/20	Scrub/wet grassland	
165	1.49		WS1/HD1	10/08/20	Scrub/bracken	
215	5.69		WS1/HD1	10/08/20	Scrub/bracken	
182	1.20		WS1/Rud	10/08/20	Scrub/ruderal vegetation	
TOTAL AREA		784.54				

Appendix 7 Company profiles

Cill Ultra

INSERT COMPANY PROFILE



www.alanlauderconsulting.com

Alan Lauder, is lead author of this plan. He is a professional nature conservation and wildlife projects specialist with over 30 years' experience working across state and non-governmental wildlife and conservation organisations in the UK and Ireland and since 2013 has provided consultancy services to state, commercial and community clients in wildlife conservation, countryside & land management, project management, strategic planning and sustainable development. He has expertise in habitat management for nature conservation, a wide range of ecological and ornithological research, survey and monitoring, visitor/wildlife tourism and education projects, wildlife management and reintroduction projects. As a senior level leader and manager in a range of organisations he developed extensive skills and experience in project and team management, organisational and strategic development, communications and policy as well as in planning and development casework and in the designation of sites under both EU and UK domestic legislation.



The team at ALC include some of Ireland's premier wildlife specialists and includes a range of associates who also provide expertise in planning, access and interpretation and tourism as well as science and field research across a wide range of taxonomic groups from birds to botany.

