

## **Botanical Study - Appendix 6-1**

Glenora Windfarm, Co  
Mayo





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Prepared By: **MKO  
Tuam Road  
Galway  
Ireland  
H91 VW84**



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# 1. INTRODUCTION

## 1.1 Introduction

MKO were commissioned to undertake detailed botanical surveys to provide an evaluation and assessments of the habitats occurring on site at the proposed Glenora Windfarm, Co. Mayo (“Proposed Development”). The detailed assessments focused on the habitats occurring immediately adjacent to the Proposed Development footprint. The detailed botanical surveys were undertaken throughout 2021, 2022, and 2023, on the dates listed below.

## 1.2 Survey Methods

Surveys were undertaken within the site of the Proposed Development on the following dates:

- > 2<sup>nd</sup> July 2021
- > 9<sup>th</sup> July 2021
- > 18<sup>th</sup> August 2021
- > 2<sup>nd</sup> September 2021
- > 24<sup>th</sup> September 2021
- > 18<sup>th</sup> January 2022
- > 25<sup>th</sup> January 2022
- > 20<sup>th</sup> of April 2023
- > 3<sup>rd</sup> May 2023

All surveys of vegetation were completed within the optimum period for vegetation surveys/habitat mapping, i.e., April to September (Smith *et al.*, 2011). A comprehensive walkover of the entire EIAR primary study area was completed. Surveys undertaken outside of this period were not used to evaluate habitats.

The multidisciplinary surveys were also designed to detect the presence, or likely presence, of a range of protected species. The survey included a search for badger setts and areas of suitable habitat, potential features likely to be of significance to bats and additional habitat features for the full range of other protected species that are likely to occur in the vicinity of the Proposed Development (e.g., otter etc.). In addition, an inventory of other species of local biodiversity interest was compiled including invertebrates (butterflies, dragonflies, damselflies, beetles), plants, fungi etc.

The multi-disciplinary walkover surveys comprehensively covered the entire EIAR primary study area for features and locations of ecological significance. Based on the multi-disciplinary walkover survey findings, further detailed targeted surveys were carried out during follow-up species specific survey visits. These are described in detail below. These surveys were carried out in accordance with NRA *Guidelines on Ecological Surveying Techniques for Protected Flora and Fauna on National Road Schemes* (NRA, 2009).

During the multidisciplinary surveys, a search for Invasive Alien Species (IAS) listed under the Third Schedule of the European Communities Regulations 2011 (S.I. 477 of 2015) was conducted.

Other targeted survey methodologies undertaken at the site are described in the following subsections.

## Dedicated Habitat and Vegetation Composition Surveys

Habitats within the site were classified according to the guidelines set out in ‘A Guide to Habitats in Ireland’ (Fossitt, 2000), which classifies habitats based on the vegetation present and management history. Vegetation was sampled by taking botanical quadrats/relevés within representative habitat areas of the site. This allowed for accurate habitat classification. The location of each of the quadrats and the quadrat data is provided in Appendix 6-1, of the EIAR. The extent of each habitat on site was mapped on site using aerial photography, hand-held GPS, and smartphone technology. A representative photograph was also taken for each of the habitats recorded on site, including all relevés.

Habitats, such as peatlands recorded within the site, likely to correspond to EU Habitats Directive Annex I habitat types have been described and assessed in accordance with NPWS guidance from the relevant national Annex I habitat surveys/Irish Wildlife Manuals.

The survey results for peatland habitats were analysed in accordance with Smith and Crowley (2020), and vegetation communities were also classified for habitats, in particular Annex I habitats, according to the Irish Vegetation Classification (IVC) system (Perrin, 2015<sup>1</sup>). The IVC is a project with aims to classify, describe, and map in detail all aspects of natural and semi-natural vegetation in Ireland within a single, unified framework. The National Vegetation Database (NVD), upon which the IVC is based, holds data for over 30,000 relevés and is the core resource upon which the classification system is based.

A fundamental requirement of the IVC is to “aid in definition and **identification** of EU Habitat Directive (92/43/EEC) Annex I habitats” and to ‘inform the planning process, for example through environmental impact assessments’.

The Engine for Relevés to Irish Communities Assignment (ERICA) is a web application for assigning vegetation data to communities defined by the Irish Vegetation Classification (IVC). Data can be uploaded, checked for errors, and analysed and the results can then be downloaded. ERICA works with both quantitative vegetation cover data (such as are recorded in relevés and other types of botanical recording plots) and presence/absence data, such as species lists. ERICA covers grasslands, woodland, duneland, heaths, bogs, fens, mires, freshwater, saline waters, rocky habitats, scrub, strandline, saltmarsh and weed communities (Perrin, 2019<sup>2</sup>).

The data collected from the botanical assessments was uploaded to ERICA on the 27<sup>th</sup> of October 2023, analysed and the results data downloaded.

The analysis procedure uses a clustering process to assign classification affinity to vegetation plots based on a degree of membership to each of the communities defined by the IVC. Table 1.1 details the categorizing types of plots utilizing the clustering analysis. This categorizing procedure was utilized to determine if the relevé plots within the study area had affinity to any Annex I habitat.

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<sup>1</sup> Perrin, P.M., (2015) *The Irish Vegetation Classification – Technical Progress Report No. 1*, Online, Available at: [http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Irish-Vegetation-Classification\\_Technical-Progress-Report-No.1-1.pdf](http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Irish-Vegetation-Classification_Technical-Progress-Report-No.1-1.pdf) Accessed January 2022.

<sup>2</sup> Perrin, 2019, *Engine for Relevés to Irish Communities Assignment (ERICA)*, Online, Available at: [https://biodiversityireland.shinyapps.io/vegetation-classification/ w\\_ab62059c/manual.pdf](https://biodiversityireland.shinyapps.io/vegetation-classification/ w_ab62059c/manual.pdf) Accessed, 01.11.2022

Table 1-1 Categorising types of plots using clustering analysis (after Wisser & de Cáceres, 2013).

Plot Type	Definition
<b>Assigned</b>	The plot has membership $\geq 0.5$ for one of the vegetation communities and therefore relates to the core definition of that vegetation community.
<b>Unassigned</b>	The plot has membership $\geq 0.5$ for the noise class and is poorly represented by the current classification scheme
<b>Transitional</b>	The plot has membership $< 0.5$ for all vegetation communities and for the noise class. It falls within the scope of the current classification scheme but does not relate to the core definition of any of the vegetation communities.

The habitat assessment surveys described in this report, including EU Habitats Directive Annex I classification and condition assessment, have been undertaken with reference to the following guidelines and interpretation documents:

- Perrin, P.M, Martin, J.R., Barron, J.R., Roche & O’Hanrahan, B. (2014) *Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland*. Version 2.0. Irish Wildlife Manuals, No. 79. National Parks and Wildlife Service.
- O’Neill, F.H., Martin, J.R., Devaney, F.M. & Perrin, P.M. (2013) *The Irish semi-natural grasslands survey 2007-2012*. Irish Wildlife Manuals, No. 78. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.
- Martin, J.R., O’Neill, F.H. & Daly, O.H. (2018) *The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats*. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.
- NPWS (2019), *The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments*. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O’Neill
- NPWS (2013), *The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2. Version 1.1*. Unpublished Report, National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Commission of the European Communities (2007) *Interpretation manual of European Union habitats*. Eur 27. European Commission DG Environment.

Habitats considered to be of ecological significance and in particular having the potential to correspond to those listed in Annex I of the EU Habitats Directive 92/43/EEC were identified and classified as KERs.

All species were readily identifiable during the survey. Plant nomenclature for vascular plants follows ‘*New Flora of the British Isles*’ (Stace, 2010), while mosses and liverworts nomenclature follows ‘*Mosses and Liverworts of Britain and Ireland - a field guide*’ (British Bryological Society, 2010).

1.4

## **Statement of Authority**

This report has been prepared by Rachel Minogue (B.Sc. Env.). This report has been reviewed by Colin Murphy (B.Sc., M.Sc). Colin is an experienced ecologist with over three years professional consulting experience. Colin has previous experience in preparing Biodiversity Chapters for EIARs. The baseline ecological surveys were undertaken by Inga Reich, Sarah Mullen (B.Sc., M.Sc. Ph.D.) and Kevin McElduff (B.Sc. Environmental Science). Additional ecological surveys were undertaken by Colin Murphy (BSc,MSc), and Rachel Minogue (BSc) on the 20/04/2023, and by Rachel Minogue (BSc) and Deirdre McCarthy (BSc) on the 03/05/2023. They have relevant academic qualifications and are competent experts in undertaking the ecological surveys in which they were involved.



## 2. 2023 RELEVE RESULTS

### 2.1 Proposed Borrow Pit

There are three borrow pits proposed for the development site. The proposed borrow pits are located to the northeast of T7, to the south of T20 and southwest of T19, and along the intended grid connection route to the south.

#### 2.1.1 Proposed Borrow Pit Along the Grid Connection Route

Table 2-1 Revele Data for the proposed Borrow Pit Along the Grid Connection Route.

Grid reference		54.263415 9.432665		
Releve Area		2x2m		
Date		03/05/2023		
Soil Moisture Regime		Dry underfoot- degraded moss/ sphagnum spp		
Management Regime		Sheep/ deer grazed heath		
Species		%Cover		
Vascular Plants	Scientific Name	Plot 1	Plot 2	Plot 3
Ling heather	<i>Calluna vulgaris</i>	40	30	15
Purple moor grass	<i>Molinia caerulea</i>	35	40	35
Common cotton grass	<i>Eriophorum angustifolium</i>	5	0	1
Deer grass	<i>Trichophorum cespitosum</i>	15	0	20
Scots pine saplings	<i>Pinus sylvestris</i>	5	0	0
Reindeer lichen	<i>Cladonia portentosa</i>	10	25	10
Tormentil	<i>Potentilla erecta</i>	8	1	1
Cross leaved heath	<i>Erica tetralix</i>	10	5	1
Heath Milkwort	<i>Polygala serpyllifolia</i>	10	0	5
Marsh Lousewort	<i>Pedicularis palustris</i>	0	0	2
Bog Asphodel	<i>Narthecium ossifragum</i>	0	0	5

Non-vascular Plants				
<i>Sphagnum capillifolium</i>	<i>Rhytidiadelphus loreus</i>	10	1	
<i>Brook Fork Moss</i>	<i>Rhytidiadelphus loreus</i>	8	0	
<i>Red Stem feathermoss</i>	<i>Pleurozium schreberi</i>	8	1	
<b>Fossitt (2000) Habitat Classification</b>		Wet Heath (HH3)/ Lowland Blanket Bog (PB3)/Montane Heath (HH4).		
<b>IVC Classification/ ERICA</b>		BG2C/ HE2E/ BG2B: Annex I: 4010 Wet heath / 7130 Blanket bog (active)*/ 4060 Alpine and subalpine heaths.		



Plate 2-1 Habitat type at the proposed Borrow pit located along the grid connection route.

2.1.2

## Proposed Borrow Pit to the South of T20, and Southwest of T19

Table 2-2 Releve Data from the Proposed Borrow Pit to the south of T20, and southwest of T19.

Grid reference		54.263415 9.432665		
Releve Area		2x2m		
Date		20/04/2023		
Soil Moisture Regime		Dry underfoot- degraded moss/ sphagnum spp		
Management Regime		Sheep/ deer grazed heath		
Species		% Cover		
Vascular Plants	Scientific Name	Plot 1	Plot 2	Plot 3
Ling heather	<i>Calluna vulgaris</i>	20	50	30
Purple moor grass	<i>Molinia caerulea</i>	40	50	60
Common cotton grass	<i>Eriophorum angustifolium</i>	1	0	5
Deer grass	<i>Trichophorum cespitosum</i>	30	1	20
Reindeer lichen	<i>Cladonia portentosa</i>	0.5	5	15
Tormentil	<i>Potentilla erecta</i>	0.5	0	0.5
Cross leaved heath	<i>Erica tetralix</i>	0.5	4	3
Soft rush	<i>Juncus effusus</i>	30	0	0
Bell Heather	<i>Erica cinerea</i>	0	2	10
Non-vascular Plants				
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	15	10	5
Brook Fork Moss	<i>Rhytidiadelphus loreus</i>	0.5	7	0
Red Stem feathermoss	<i>Pleurozium schreberi</i>	5	5	0
Broom forkmoss	<i>Dicranum scoparium</i>	0.5	12	0
Fossitt (2000) Habitat Classification		Wet Heath (HH3)		
IVC Classification/ ERICA		HE4E Annex I: 4010 Wet heath		



*Plate 2-2 Habitat type at the proposed Borrow pit located to the south of T20, and southwest of T19.*

## 2.2 Proposed Coillte Designated Biodiversity Areas

### 2.2.1 The Coillte Biodiversity Area located to the west of T11.

Table 23 Releve Data for the proposed Coillte Biodiversity Area located to the west of T11.

Grid reference		54.247826 -9.4750106
Releve Area		2x2m
Date		03/05/2023
Soil Moisture Regime		Dry underfoot- degraded moss/ sphagnum spp
Management Regime		Sheep/ deer grazed heath
Species		% Cover
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	30
Purple moor grass	<i>Molinia caerulea</i>	40
Common cotton grass	<i>Eriophorum angustifolium</i>	1
Deer grass	<i>Trichophorum cespitosum</i>	10
Bilberry	<i>Vaccinium myrtillus</i>	5
Tormentil	<i>Potentilla erecta</i>	1
Cross leaved heath	<i>Erica tetralix</i>	5
Devil's bit scabious	<i>Succisa pratensis</i>	10
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	5
Shaggy Moss	<i>Rhytidiadelphus triquetrus</i>	15
<b>Fossitt (2000) Habitat Classification</b>		Wet Heath (HH3)
<b>IVC Classification/ ERICA</b>		<b>HE4E</b> -Annex I: 4010 Wet heath- <i>Molinia caerulea</i> – <i>Calluna vulgaris</i> – <i>Erica tetralix</i> heath



*Plate 2-3 Coillte Biodiversity Area west of T11.*

2.3.1

## The proposed Coillte Biodiversity Area to the east of T12, and west of T15.

Table 2-4 Releve Data for the Coillte Biodiversity Areas located to the east of T12, and west of T15.

Grid reference		54.245218, -9.4656980
Releve Area		2x2m
Date		03/05/2023
Soil Moisture Regime		Dry underfoot- degraded moss/ sphagnum spp
Management Regime		Sheep/ deer grazed heath
Species		% Cover
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	40
Purple moor grass	<i>Molinia caerulea</i>	25
Common cotton grass	<i>Eriophorum angustifolium</i>	5
Soft Rush	<i>Juncus effusus</i>	30
Deer grass	<i>Trichophorum cespitosum</i>	15
Reindeer Lichen	<i>Cladonia portentosa</i>	5
Cross leaved heath	<i>Erica tetralix</i>	1
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	10
<b>Fossitt (2000) Habitat Classification</b>		Wet Heath (HH3)
<b>IVC Classification/ ERICA</b>		<b>HE4E</b> -Annex I: 4010 Wet heath- <i>Molinia caerulea</i> – <i>Calluna vulgaris</i> – <i>Erica tetralix</i> heath



*Plate 2-4 Coillte Biodiversity Area located to the east of T12, and west of T15*



## Biodiversity Management and Enhancement Area

The area for the proposed biodiversity management enhancement plan (BMEP) is located to the northern margin of the development site, north of T7.

Table 2.5 Releve Data for the proposed biodiversity management enhancement area.

Grid reference		54.260336, -9.4781327
Releve Area		2x2m
Date		20/04/2023
Soil Moisture Regime		Dry underfoot- degraded moss/ sphagnum spp
Management Regime		Sheep/ deer grazed heath
Species		% Cover
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	60
Purple moor grass	<i>Molinia caerulea</i>	35
Common cotton grass	<i>Eriophorum angustifolium</i>	1
Reindeer lichen	<i>Cladonia portentosa</i>	10
Tormentil	<i>Potentilla erecta</i>	0.5
Cross leaved heath	<i>Erica tetralix</i>	0.5
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	15
Little Shaggy Moss	<i>Rhytidiadelphus loreus</i>	10
Red Stem feathermoss	<i>Pleurozium schreberi</i>	6
Woolly- Fringe Moss	<i>Racomitrium lanuginosum</i>	15
<b>Fossitt (2000) Habitat Classification</b>		Wet Heath (HH3)
<b>IVC Classification/ ERICA</b>		<b>HE2D:</b> Annex I: 4010 Wet heath- <i>Calluna vulgaris</i> – <i>Molinia caerulea</i> – <i>Erica cinerea</i> heath



*Plate 2-5 Biodiversity Management Enhancement Plan (BMEP) Area located to the northern margin of the development site.*

### 3. 2022 RELEVÉ RESULTS

#### 3.1 Peatland Habitats

##### 3.1.1 Peatland habitat recorded to the southeast of the site.

An area of peatland was recorded to the southern parcel of the site, to the east of T5 and northeast of T20.

Table 3-1 Peatland habitat recorded to the southeast of the site.

<b>Grid reference</b>		54.241438, -9.4551355
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	40
Purple moor grass	<i>Molinia caerulea</i>	50
Reindeer lichen	<i>Cladonia portentosa</i>	10
Tormentil	<i>Potentilla erecta</i>	5
Cross leaved heath	<i>Erica tetralix</i>	5
Hare's tail cottongrass	<i>Eriophorum vaginatum</i>	0.5
White earwort	<i>Diplophyllum albicans</i>	4
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	75
Red Stem feathermoss	<i>Pleurozium schreberi</i>	15

3.1.2

## Peatland habitat to the Southwestern corner of the site

An area of peatland was recorded to the southwest corner of the site, surrounded by Conifer Plantation (WD4), to the southwest of T4.

Table 3-2 peatland habitat to the southwestern corner of the site

Grid reference		54.229091, -9.5066714
Releve Area		2x2m
Date		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	20
Reindeer lichen	<i>Cladonia portentosa</i>	10
Cross leaved heath	<i>Erica tetralix</i>	5
Hare's tail cottongrass	<i>Eriophorum vaginatum</i>	40
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	15
Red Stem feathermoss	<i>Pleurozium schreberi</i>	15

### 3.1.3 Peatland to the southern margin of the site

Peatland habitat was recorded to the southern margin of the site, along the fence line, to the south of T17.

Table 3-3 Peatland Habitat to the southern margin of the site

Grid reference		54.232101, -9.4671035
Releve Area		2x2m
Date		2022
Species		% Cover
Vascular Plants	Scientific Name	Plot 1
Ling heather	<i>Calluna vulgaris</i>	25
Reindeer lichen	<i>Cladonia portentosa</i>	
Cross leaved heath	<i>Erica tetralix</i>	4
Bell heather	<i>Erica cinerea</i>	5
Hare's tail cottongrass	<i>Eriophorum vaginatum</i>	20
Common cottongrass	<i>Eriophorum angustifolium</i>	40
Bog asphodel	<i>Narthecium ossifragum</i>	5
Tormentil	<i>Potentilla erecta</i>	5
Non-vascular Plants		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	15

3.2

## Dystrophic Lake Margin

The Dystrophic Lake is located to the southwest corner of the site, surrounded by Conifer plantation (WD4), southeast of T4.

Table 3-4 Releve Data taken from the margin of the Dystrophic Lake to the southwestern corner of the site.

<b>Grid reference</b>		54.231129, -9.4992712
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	30
Purple moor grass	<i>Molinia caerulea</i>	15
Reindeer lichen	<i>Cladonia portentosa</i>	5
Hare's tail cottongrass	<i>Eriophorum vaginatum</i>	10
Bog Bean	<i>Menyanthes trifoliata</i>	5
<b>Non-vascular plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	70

## 3.4 Pool Habitats

### 3.4.1 Pool Margin

The releve data below is taken from the margin of a pool to the southwest corner of the site, to the southeast of T4.

Table 3-5 Releve Data from a pool margin to the southwest of the site

<b>Grid reference</b>		54.233961, -9.4999096
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	15
Purple moor grass	<i>Molinia caerulea</i>	60
Reindeer lichen	<i>Cladonia portentosa</i>	5
<b>Non-vascular plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	30
Red Stem feathermoss	<i>Pleurozium schreberi</i>	5

### 3.4.2 Pool to the south of the site

The pool in the centre of the site is located to the northeast of T13, and northwest of T17, surrounded by Conifer Plantation (WD4).

Table 3-6 Releve Data from the pool to the south of the site

<b>Grid reference</b>		54.235859, -9.4777854
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	20
Reindeer lichen	<i>Cladonia portentosa</i>	5
Hare's tail cottongrass	<i>Eriophorum vaginatum</i>	20
<b>Nonvascular plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	80



3.5

## Biodiversity Area

The biodiversity area is located to the west of T11, in an open area surrounded by Conifer Plantation (WD4).

Table 3-7 Biodiversity Area to the west of T11.

Grid reference		54.247801, -9.4751233
Releve Area		2x2m
Date		2022
Species		% Cover
Vascular Plants	Scientific Name	Plot 1
Ling heather	<i>Calluna vulgaris</i>	50
Purple moor grass	<i>Molinia caerulea</i>	40
Reindeer lichen	<i>Cladonia portentosa</i>	1
Tormentil	<i>Potentilla erecta</i>	1
Cross leaved heath	<i>Erica tetralix</i>	1
Bell heather	<i>Erica cinerea</i>	2
Non-vascular Plants		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	5
Little Shaggy Moss	<i>Rhytidiadelphus loreus</i>	2
Red Stem feathermoss	<i>Pleurozium schreberi</i>	80
Bog moss flapwort	<i>Odontoschisma sphagni</i>	0.5

## 3.6 Heath Habitats

### 3.6.1 Small Heath Area

A small area of heath habitat is located to the northwest corner of the site, north of T1 and west of T7.

Table 3-8 Releve Data from a small heath habitat to the northwest corner of the site.

<b>Grid reference</b>		54.255298, -9.4952881
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	25
Purple moor grass	<i>Molinia caerulea</i>	60
Reindeer lichen	<i>Cladonia portentosa</i>	5
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	10
Red Stem feathermoss	<i>Pleurozium schreberi</i>	5

### 3.6.2 Larger Heath Area

An area of larger heath is located to the northwest corner of the site, to the northwest of T1.

Table 3-9 Releve Data from a large area of heath habitat to the northwest corner of the site.

<b>Grid reference</b>		54.261966, -9.4983029
<b>Releve Area</b>		2x2m
<b>Date</b>		2022
<b>Species</b>		<b>% Cover</b>
<b>Vascular Plants</b>	<b>Scientific Name</b>	<b>Plot 1</b>
Ling heather	<i>Calluna vulgaris</i>	60
Purple moor grass	<i>Molinia caerulea</i>	30
<b>Non-vascular Plants</b>		
Sphagnum capillifolium	<i>Sphagnum capillifolium</i>	4

4.

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