
Kirkan Wind Farm

Environmental Impact Assessment Report

Appendix 6.1: Habitats and Vegetation



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1 INTRODUCTION

1.1.1 This appendix has been prepared to accompany Chapter 6: Ecology of the Kirkan Wind Farm Environmental Impact Assessment Report (EIAR).

1.1.2 It presents detailed methodologies and results of desk study and field surveys completed to establish baseline habitat conditions and should be read with reference to the following figures (presented in Volume 3 of the EIAR):

- **Figure 6.1** - Project Area;
- **Figure 6.2** – Phase 1 habitat Plan; and,
- **Figure 6.3** – NVC Plan.

2 METHODOLOGY

2.1 Objectives

2.1.1 The objectives of the baseline studies were to:

- Establish the spatial distribution of habitats and vegetation communities which may be impacted by the Kirkan Wind Farm (hereafter the proposed development); and
- Identify the presence and distribution of potential Groundwater Dependent Terrestrial Ecosystems for (GWDTes) for subsequent hydrological assessment.

2.2 Desk Study

2.2.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) (<http://magic.defra.gov.uk/>) was reviewed to identify any existing habitat data within the project area and immediate surroundings.

2.2.2 In addition, an information request was also submitted to the Highland Biological Recording Group (HBRG) for existing records of habitat types, protected and notable flora species.

2.3 Field Surveys

Key Guidance

2.3.1 Survey methodologies and subsequent interpretation of results have made reference to the following key pieces of guidance;

- JNCC (2010). Handbook for Phase 1 Habitat Survey - a technique for environmental audit. Revised Reprint 2010. JNCC, Peterborough.
- Rodwell, J. S. (2006). National Vegetation Community Users' Handbook. JNCC, Peterborough.
- Rodwell, J. S. (ed.) (1993). British Plant Communities. Volume 2. Mires and Heaths. Cambridge University Press, Cambridge.
- Rodwell, J. S. (ed.) (1992). British Plant Communities. Volume 3. Grasslands and montane communities. Cambridge University Press, Cambridge.

- Stace, C. (1997). *Field flora of the British Isles*. Cambridge University Press, Cambridge
- Scotland and Northern Ireland Forum for Environmental Research (SNIFFER, 2009) WFD95:A *Functional Wetland Typology for Scotland – Field Survey Manual*. Version 1.

2.3.2 The following surveys have been completed:

- Phase 1 habitat survey (2017); and,
- National Vegetation Classification (NVC) survey (2017).

Phase 1 Habitat Survey

2.3.3 A Phase 1 habitat survey was undertaken between the 15th and 16th of July 2017.

2.3.4 The survey was undertaken in accordance with the UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010).

2.3.5 During the survey all habitats within the search area used for the other ecological surveys were mapped according to industry standards and described using a series of ‘target notes’ (TNs).

NVC Survey

2.3.6 An NVC survey was undertaken between the 17th and 20th of July 2017 following the guiding principles detailed within the ‘National Vegetation Classification: User’s Handbook’ (Rodwell, 2006).

2.3.7 The NVC study area comprised all noteworthy habitats within the project area and out to 250 m as access allowed.

2.3.8 Within the study area, areas were selected for NVC survey based on the presence of homogenous stands of vegetation and focusing on UK and/or Local Biodiversity Action Plan (LBAP) habitats of potential nature conservation value, as identified during the initial Phase 1 Habitat Survey.

2.3.9 The following Phase 1 habitat types as identified during the Extended Phase 1 habitat survey were included:

- Dry dwarf shrub heath (D1);
- Wet dwarf shrub heath (D2); and,
- Blanket bog (E1.6.1) and,
- Flush and Spring (E2).

2.3.10 The following habitats were excluded from NVC survey because they were considered unlikely to be of substantial botanical interest:

- Poor semi-improved grassland (B6);
- Coniferous plantation woodland (A1.2.2);
- Broad-leaved plantation woodland (A1.2.3); and,
- Recently felled coniferous plantation (A4.2).

2.3.11 During survey, square quadrats of size 2 m² were distributed throughout homogenous stands identified in order to provide a representative sample of the vegetation community present.

- 2.3.12 In each quadrat sample area, data was collected on the presence and abundance of vascular plant species using the Domin scale. These data were then analysed and classified to an NVC vegetation community, where possible, using the keys in Rodwell (various) British Plant Communities Volumes 1 to 5.

Personnel

- 2.3.13 Surveys were conducted by Mr C. Davies MSc MCIEEM and Ms S. Turner BSc (Hons) MSc GradCIEEM; both competent botanists with considerable experience of undertaking Phase 1 Habitat and NVC surveys for proposed wind farm developments, across numerous comparable upland sites in Scotland.
- 2.3.14 NVC analysis was conducted by Mr C. Davies.

3 RESULTS

3.1 Desk Study

- 3.1.1 The desk study did not identify any records of known habitat types within the project area.
- 3.1.2 No existing records of protected or notable flora were returned by the HBRG.

3.2 Field Surveys

- 3.2.1 This section presents the results of baseline field surveys, including an overview of habitat types present within the study area and their distribution. It should be read with reference to **Figures 6.2** and **6.3**.
- 3.2.2 Detailed species lists and domin scores relating to each distinct community are presented in **Annexes 1** and **2**. TNs shown in Figure 6.2 are detailed in **Annex 3**, along with photographs, and represent habitat descriptions and points of nature conservation interest or nature conservation value recorded during surveys.
- 3.2.3 The study area is dominated throughout by a mix of blanket bog communities (E1.6.1) on deeper peat and wet dwarf shrub heath communities (D2) on shallower soils, with dominant ling *Calluna vulgaris* and deergrass *Tricophorum germanicum* in variable proportions, sometimes with hare's-tail cottongrass *Eriophorum vaginatum* as an important component. These form fairly large areas within the west and southern extents of the study area.
- 3.2.4 In the central and eastern areas of the study area topography is much more variable, resulting in a mosaic of wet heath habitats with blanket bog on pockets of deeper peat, and occasional grass and sedge dominated mire communities (E2) on flushes and along watercourses.
- 3.2.5 Within the eastern extent of the study area is a large enclosed area which has been planted with Scots pine *Pinus sylvestris* and downy birch *Betula pubescens* (A1.1.2 and A1.2.2) atop the blanket bog and wet heath habitats. Whilst having been planted reportedly in the later 1980's, these trees are today poorly established with stunted growth, most likely due to local conditions.
- 3.2.6 The study area is drained by a number of small upland streams (G2) with stony beds.
- 3.2.7 No protected plant species were found within the project area however, dwarf birch *Betula nana* was noted as relatively widespread locally.

Blanket bog

- 3.2.8 The best community match for blanket bog within the study area is M17 *Trichophorum cespitosum*-*Eriophorum vaginatum* blanket mire. This community is typically dominated by *Trichophorum cespitosum*, *Eriophorum vaginatum* and *Eriophorum angustifolium* with *Calluna vulgaris* and *Erica tetralix*. *Sphagnum papillosum* and *S. capillifolium* are the commonest sphagnums whilst *Narthecium ossifragum* and *Drosera* species are also present in good numbers.
- 3.2.9 There are two sub-communities within the study area. The *Drosera rotundifolium*-*sphagnum* species sub-community M17a occurs sparsely in the wettest parts of the bog, and here *Drosera* species are especially common with the oceanic liverwort *Pleurozia purpurea* also present and there are stands of *Myrica gale*.
- 3.2.10 The *Cladonia* sub-community M17b is the dominant sub-community on site, occurring on slightly drier peat over the majority of it. Where it does occur the *Cladonia* can be extensive; however in other parts of this sub-community the *Cladonia* is largely replaced by the moss *Racomitrium lanuginosum* which typically grows in silvery green hummocks.
- 3.2.11 M17 *Trichophorum cespitosum*-*Eriophorum vaginatum* blanket mire is rare globally however, is common throughout the North West Highlands of Scotland (Averis *et al.*, 2004).

Wet heath

- 3.2.12 The best community match for wet heath within the study area is M15 *Trichophorum cespitosum*-*Erica tetralix* wet heath. This is a ubiquitous community over much of the north and west of Scotland.
- 3.2.13 The community is dominated by *Calluna vulgaris*, *Erica tetralix*, *Trichophorum cespitosum* and *Molinia caerulea* and has much *Narthecium ossifragum* and *Eriophorum angustifolium*. The sub-community present on site is M15b typical sub-community.

Mire

- 3.2.14 Small areas of M6 *Carex echinata* – *Sphagnum fallax* mire occurs within the study area, largely following the course of streams through the blanket bog. It is dominated by *Carex echinata*, with other sedges including *Carex nigra*, and forbes including *Viola palustris* and *Potentilla erecta*. *Sphagnum fallax* is the dominant bryophyte.

Summary

- 3.2.15 Vegetation communities present within the study area are summarised in Table 3.1, along with corresponding Habitats Directive (92/43/EEC) Annex 1 Habitat types and Ground Water Dependant Terrestrial Ecosystems (GWDTE) status in accordance with SNIFFER guidance (2009¹).

¹ SNIFFER (2009) WFD95: A Functional Wetland Typology for Scotland – Field Survey Manual. Version 1. ISBN: 978-1-906934-22-4.

Table 3.1: Summary of vegetation communities.

NVC community	Principle corresponding Habitats Directive Annex I type/s	Dependence of community/ habitat on groundwater. 1=High, 2=moderate, 3=low
M6 <i>Carex echinata</i> – <i>Sphagnum fallax</i> mire	None directly applies.	2
M15 <i>Trichophorum cespitosum</i> - <i>Erica tetralix</i> wet heath	European wet heath.	2
M17 <i>Trichophorum cespitosum</i> - <i>Eriophorum vaginatum</i> blanket mire	Active raised bog and blanket bog.	3

ANNEX 1: SPECIES LIST

A summary of botanical species recorded during the Phase 1 habitat and NVC survey is provided in **Table A1-1** below.

Table A1-1: Summary botanical species list.

Species	
<i>Calluna vulgaris</i>	Common heather
<i>Sphagnum capillifolium</i>	Red bog-moss
<i>Cladonia sp.</i>	Lichen species
<i>Trichophorum cespitosum</i>	Deergrass
<i>Molinia caerulea</i>	Purple moor-grass
<i>Sphagnum papillosum</i>	Papillose bog-moss
<i>Eriophorum vaginatum</i>	Hare's-tail cottongrass
<i>Erica tetralix</i>	Cross-leaved heath
<i>Racomitrium lanuginosum</i>	Woolly fringe-moss
<i>Eriophorum angustifolium</i>	Common cottongrass
<i>Hylocomium splendens</i>	Glittering wood-moss
<i>Narthecium ossifragum</i>	Bog asphodel
<i>Myrica gale</i>	Bog-myrtle
<i>Carex echinata</i>	Star sedge
<i>Hypnum jutlandicum</i>	Heath plait-moss
<i>Potentilla erecta</i>	Tormentil
<i>Juncus squarrosus</i>	Heath rush
<i>Sphagnum fallax</i>	Flat-topped bog-moss
<i>Betula nana</i>	Dwarf birch
<i>Carex nigra</i>	Common sedge
<i>Juncus conglomeratus</i>	Compact rush
<i>Pleurozium schreberi</i>	Red-stemmed feather-moss
<i>Pleurozia purpurea</i>	Purple spoonwort
<i>Empetrum nigrum</i>	Crowberry
<i>Drosera rotundifolia</i>	Round-leaved sundew
<i>Polytrichum commune</i>	Common haircap
<i>Nardus stricta</i>	Mat-grass
<i>Sphagnum cuspidatum</i>	Feathery bog-moss
<i>Juncus effusus</i>	Soft rush
<i>Viola palustris</i>	Marsh violet
<i>Sphagnum subnitens</i>	Lustrous bog-moss
<i>Sphagnum magellanicum</i>	Magellanic bog-moss

<i>Succisa pratensis</i>	Devil's-bit scabious
<i>Deschampsia flexuosa</i>	Wavy hair-grass
<i>Galium saxatile</i>	Heath bedstraw
<i>Vaccinium myrtillus</i>	Bilberry
<i>Galium palustre</i>	Marsh bedstraw
<i>Sphagnum affine</i>	Imbricate bog-moss
<i>Luzula multiflora ssp. Congesta</i>	Heath wood-rush
<i>Drosera anglica</i>	Great sundew
<i>Trientalis europaea</i>	Chickweed
<i>Pedicularis sylvatica</i>	Lousewort
<i>Menyanthes trifoliata</i>	Bogbean
<i>Huperzia selago</i>	Fir clubmoss
<i>Carex pulicaris</i>	Flea sedge
<i>Rhytidiadelphus loreus</i>	Little shaggy-moss
<i>Dicranum scoparium</i>	Broom fork-moss
<i>Carex binervis</i>	Green-ribbed sedge
<i>Ranunculus repens</i>	Creeping buttercup
<i>Festuca vivipara</i>	Sheep's fescue
<i>Pinguicula vulgaris</i>	Common butterwort
<i>Carex panicea</i>	Carnation sedge
<i>Blechnum spicant</i>	Hard fern
<i>Sphagnum palustre</i>	Blunt-leaved bog-moss
<i>Carex pilulifera</i>	Pill sedge
<i>Euphrasia sp.</i>	Eyebright species
<i>Dactylorhiza maculata</i>	Heath spotted orchid
<i>Aulacomnium palustre</i>	Bog bead-moss
<i>Sphagnum compactum</i>	Compact bog-moss
<i>Melampyrum pratense</i>	Common cow-wheat
<i>Anthoxanthum odoratum</i>	Sweet vernal grass
<i>Pseudoscleropodium purum</i>	Neat feather-moss
<i>Sphagnum denticulatum</i>	Cow-horn bog-moss
<i>Tofieldia pusilla</i>	Scottish asphodel
<i>Polygala serpyllifolia</i>	Heath milkwort
<i>Sphagnum tenellum</i>	Soft bog-moss
<i>Neottia cordata</i>	Lesser twayblade

ANNEX 2: NVC SURVEY RESULTS

Tables A2-1 and A2-2 below outline DOMIN scales and scores for NVC survey results.

Table A2-1: Dominance (DOMIN) scale.

Code	Approximate percentage cover in quadrat
10	>90%
9	75 – 90%
8	51 – 75%
7	34 – 50%
6	26 – 33%
5	11 – 25%
4	5 – 10%
3	<5%, many individuals
2	<5%, a few individuals
1	<5%, one or two individuals

Table A2-1: Quadrat species compositions.

Quadrat	Easting	Northing
1	235166	869736
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		9
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		4
<i>Potentilla erecta</i>		4
<i>Pleurozium schreberi</i>		4
Quadrat	Easting	Northing
2	235131	869686
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		8
<i>Eriophorum vaginatum</i>		5

<i>Erica tetralix</i>		4
<i>Narthecium ossifragum</i>		4
<i>Myrica gale</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Drosera rotundifolia</i>		1
Quadrat	Easting	Northing
3	235198	869498
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Cladonia sp.</i>		8
<i>Trichophorum cespitosum</i>		7
<i>Erica tetralix</i>		7
<i>Racomitrium lanuginosum</i>		4
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		5
<i>Myrica gale</i>		7
<i>Hypnum jutlandicum</i>		4
<i>Rhytidiadelphus loreus</i>		4
Quadrat	Easting	Northing
4	235040	868279
Species		DOMIN
<i>Sphagnum capillifolium</i>		6
<i>Molinia caerulea</i>		4
<i>Sphagnum papillosum</i>		6
<i>Erica tetralix</i>		7
<i>Narthecium ossifragum</i>		4
<i>Carex echinata</i>		5
<i>Potentilla erecta</i>		4
<i>Sphagnum subnitens</i>		4
Quadrat	Easting	Northing
5	234893	869170
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		8
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		4
<i>Eriophorum angustifolium</i>		4

<i>Narthecium ossifragum</i>		1
<i>Juncus squarrosus</i>		5
<i>Sphagnum subnitens</i>		4
Quadrat	Easting	Northing
6	234842	869061
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Cladonia sp.</i>		9
<i>Trichophorum cespitosum</i>		4
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		6
<i>Narthecium ossifragum</i>		4
<i>Myrica gale</i>		9
<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		4
<i>Sphagnum compactum</i>		4
Quadrat	Easting	Northing
7	234837	868960
Species		DOMIN
<i>Calluna vulgaris</i>		4
<i>Cladonia sp.</i>		7
<i>Molinia caerulea</i>		8
<i>Erica tetralix</i>		5
<i>Narthecium ossifragum</i>		8
<i>Myrica gale</i>		5
<i>Juncus squarrosus</i>		7
Quadrat	Easting	Northing
8	234891	868906
Species		DOMIN
<i>Sphagnum papillosum</i>		8
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		5
<i>Narthecium ossifragum</i>		4
<i>Carex echinata</i>		4
<i>Potentilla erecta</i>		5
<i>Sphagnum fallax</i>		4
Quadrat	Easting	Northing

9	234918	868823
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		4
<i>Sphagnum papillosum</i>		7
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		7
<i>Racomitrium lanuginosum</i>		5
<i>Eriophorum angustifolium</i>		5
<i>Drosera rotundifolia</i>		4
Quadrat	Easting	Northing
10	234935	868751
Species		DOMIN
<i>Calluna vulgaris</i>		9
<i>Sphagnum capillifolium</i>		5
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		5
<i>Sphagnum papillosum</i>		7
<i>Eriophorum vaginatum</i>		5
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		4
<i>Pleurozia purpurea</i>		7
Quadrat	Easting	Northing
11	234974	868568
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		4
<i>Eriophorum vaginatum</i>		7
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		5
Quadrat	Easting	Northing
12	235060	868452
Species		DOMIN
<i>Calluna vulgaris</i>		7

<i>Sphagnum capillifolium</i>	5	
<i>Cladonia sp.</i>	8	
<i>Trichophorum cespitosum</i>	7	
<i>Sphagnum papillosum</i>	6	
<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Narthecium ossifragum</i>	4	
<i>Hypnum jutlandicum</i>	4	
<i>Potentilla erecta</i>	4	
<i>Juncus squarrosus</i>	5	
Quadrat	Easting	Northing
13	235134	868490
Species		DOMIN
<i>Calluna vulgaris</i>	7	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	7	
<i>Eriophorum vaginatum</i>	7	
<i>Erica tetralix</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Hypnum jutlandicum</i>	5	
<i>Juncus squarrosus</i>	6	
<i>Sphagnum subnitens</i>	4	
Quadrat	Easting	Northing
14	235189	868393
Species		DOMIN
<i>Calluna vulgaris</i>	9	
<i>Cladonia sp.</i>	10	
<i>Trichophorum cespitosum</i>	5	
<i>Racomitrium lanuginosum</i>	4	
Quadrat	Easting	Northing
15	235257	868412
Species		DOMIN
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	4	
<i>Cladonia sp.</i>	8	
<i>Trichophorum cespitosum</i>	7	

<i>Sphagnum papillosum</i>	7	
<i>Eriophorum vaginatum</i>	4	
<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Pleurozia purpurea</i>	4	
<i>Drosera rotundifolia</i>	2	
Quadrat	Easting	Northing
16	235311	868391
Species	DOMIN	
<i>Calluna vulgaris</i>	8	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	5	
<i>Erica tetralix</i>	5	
<i>Racomitrium lanuginosum</i>	7	
<i>Eriophorum angustifolium</i>	5	
<i>Narthecium ossifragum</i>	5	
<i>Drosera rotundifolia</i>	1	
<i>Sphagnum cuspidatum</i>	5	
<i>Sphagnum subnitens</i>	4	
Quadrat	Easting	Northing
17	235347	868368
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	5	
<i>Cladonia sp.</i>	6	
<i>Trichophorum cespitosum</i>	9	
<i>Sphagnum papillosum</i>	5	
<i>Eriophorum vaginatum</i>	4	
<i>Erica tetralix</i>	5	
<i>Racomitrium lanuginosum</i>	6	
<i>Eriophorum angustifolium</i>	4	
<i>Pleurozia purpurea</i>	4	
<i>Sphagnum magellanicum</i>	5	
<i>Vaccinium myrtillus</i>	4	
Quadrat	Easting	Northing
18	235406	868318

Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		4
<i>Cladonia sp.</i>		6
<i>Trichophorum cespitosum</i>		7
<i>Eriophorum vaginatum</i>		5
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		8
<i>Eriophorum angustifolium</i>		5
<i>Hypnum jutlandicum</i>		5
<i>Drosera rotundifolia</i>		2
Quadrat	Easting	Northing
19	235479	868218
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Cladonia sp.</i>		6
<i>Eriophorum vaginatum</i>		5
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		9
<i>Eriophorum angustifolium</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Drosera rotundifolia</i>		2
<i>Drosera anglica</i>		2
<i>Huperzia selago</i>		2
<i>Pinguicula vulgaris</i>		3
Quadrat	Easting	Northing
20	235549	867883
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		9
<i>Cladonia sp.</i>		8
<i>Trichophorum cespitosum</i>		8
<i>Racomitrium lanuginosum</i>		4
<i>Eriophorum angustifolium</i>		5
<i>Narthecium ossifragum</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		4
<i>Drosera rotundifolia</i>		2

Quadrat	Easting	Northing
21	235565	867789
Species		DOMIN
<i>Calluna vulgaris</i>		8
<i>Cladonia sp.</i>		8
<i>Trichophorum cespitosum</i>		6
<i>Racomitrium lanuginosum</i>		7
<i>Narthecium ossifragum</i>		4
<i>Potentilla erecta</i>		4
<i>Huperzia selago</i>		2
<i>Carex pilulifera</i>		4
Quadrat	Easting	Northing
22	235568	867781
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Cladonia sp.</i>		7
<i>Erica tetralix</i>		4
<i>Racomitrium lanuginosum</i>		4
<i>Potentilla erecta</i>		4
<i>Nardus stricta</i>		4
<i>Huperzia selago</i>		3
<i>Carex pilulifera</i>		3
Quadrat	Easting	Northing
23	235725	867665
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Cladonia sp.</i>		10
<i>Trichophorum cespitosum</i>		6
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		5
<i>Eriophorum angustifolium</i>		7
<i>Huperzia selago</i>		4
Quadrat	Easting	Northing
24	235768	867659
Species		DOMIN
<i>Calluna vulgaris</i>		9
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4

<i>Eriophorum angustifolium</i>			5
<i>Hylocomium splendens</i>			9
<i>Potentilla erecta</i>			4
<i>Trientalis europaea</i>			4
<i>Neottia cordata</i>			1
Quadrat	Easting	Northing	
25	236012	867807	
Species			DOMIN
<i>Calluna vulgaris</i>			5
<i>Cladonia sp.</i>			4
<i>Molinia caerulea</i>			4
<i>Erica tetralix</i>			4
<i>Narthecium ossifragum</i>			7
<i>Hypnum jutlandicum</i>			5
<i>Juncus squarrosus</i>			5
<i>Drosera rotundifolia</i>			1
<i>Nardus stricta</i>			4
<i>Huperzia selago</i>			2
<i>Pinguicula vulgaris</i>			2
<i>Tofieldia pusilla</i>			2
Quadrat	Easting	Northing	
26	235988	867772	
Species			DOMIN
<i>Calluna vulgaris</i>			7
<i>Cladonia sp.</i>			5
<i>Molinia caerulea</i>			5
<i>Erica tetralix</i>			4
<i>Hylocomium splendens</i>			7
<i>Potentilla erecta</i>			4
<i>Carex nigra</i>			5
<i>Viola palustris</i>			4
<i>Deschampsia flexuosa</i>			4
<i>Carex panicea</i>			4
Quadrat	Easting	Northing	
27	236001	867704	
Species			DOMIN
<i>Calluna vulgaris</i>			5
<i>Cladonia sp.</i>			7

<i>Trichophorum cespitosum</i>	9	
<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	7	
<i>Narthecium ossifragum</i>	5	
<i>Potentilla erecta</i>	4	
<i>Pleurozium schreberi</i>	4	
<i>Pleurozia purpurea</i>	5	
<i>Succisa pratensis</i>	4	
<i>Pedicularis sylvatica</i>	4	
<i>Euphrasia sp.</i>	2	
Quadrat	Easting	Northing
28	236008	867617
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	9	
<i>Trichophorum cespitosum</i>	9	
<i>Juncus squarrosus</i>	6	
<i>Pleurozia purpurea</i>	6	
Quadrat	Easting	Northing
29	236097	867485
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	6	
<i>Trichophorum cespitosum</i>	5	
<i>Sphagnum papillosum</i>	6	
<i>Eriophorum vaginatum</i>	4	
<i>Erica tetralix</i>	5	
<i>Racomitrium lanuginosum</i>	5	
<i>Eriophorum angustifolium</i>	7	
<i>Narthecium ossifragum</i>	4	
<i>Sphagnum magellanicum</i>	4	
Quadrat	Easting	Northing
30	236717	866468
Species	DOMIN	
<i>Calluna vulgaris</i>	4	
<i>Cladonia sp.</i>	9	

<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		6
<i>Potentilla erecta</i>		4
Quadrat	Easting	Northing
31	236857	867142
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		4
<i>Cladonia sp.</i>		9
<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		4
<i>Racomitrium lanuginosum</i>		7
Quadrat	Easting	Northing
32	236704	867030
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		4
<i>Racomitrium lanuginosum</i>		6
<i>Potentilla erecta</i>		4
Quadrat	Easting	Northing
33	236254	867593
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		6
<i>Trichophorum cespitosum</i>		8
<i>Sphagnum papillosum</i>		5
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		6
<i>Eriophorum angustifolium</i>		5
<i>Juncus squarrosus</i>		7
<i>Betula nana</i>		4

Quadrat	Easting	Northing
34	236511	867598
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		6
<i>Molinia caerulea</i>		5
<i>Sphagnum papillosum</i>		7
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		4
<i>Carex echinata</i>		4
<i>Potentilla erecta</i>		4
<i>Pleurozia purpurea</i>		4
<i>Drosera rotundifolia</i>		1
Quadrat	Easting	Northing
35	236608	867608
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Molinia caerulea</i>		6
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		4
<i>Myrica gale</i>		7
<i>Carex echinata</i>		7
<i>Potentilla erecta</i>		4
<i>Succisa pratensis</i>		4
Quadrat	Easting	Northing
36	236649	867609
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		9
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		4
<i>Molinia caerulea</i>		4
<i>Sphagnum papillosum</i>		5
<i>Eriophorum vaginatum</i>		5

<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	5	
<i>Narthecium ossifragum</i>	5	
<i>Potentilla erecta</i>	4	
<i>Drosera rotundifolia</i>	4	
<i>Betula nana</i>	4	
<i>Sphagnum affine</i>	4	
<i>Carex pulicaris</i>	4	
Quadrat	Easting	Northing
37	236680	867633
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	4	
<i>Molinia caerulea</i>	5	
<i>Sphagnum papillosum</i>	5	
<i>Eriophorum vaginatum</i>	5	
<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Narthecium ossifragum</i>	4	
<i>Myrica gale</i>	6	
<i>Carex echinata</i>	4	
<i>Potentilla erecta</i>	4	
<i>Drosera rotundifolia</i>	4	
<i>Succisa pratensis</i>	2	
<i>Carex pulicaris</i>	4	
<i>Euphrasia sp.</i>	4	
Quadrat	Easting	Northing
38	236692	867661
Species	DOMIN	
<i>Calluna vulgaris</i>	7	
<i>Sphagnum capillifolium</i>	4	
<i>Cladonia sp.</i>	6	
<i>Molinia caerulea</i>	7	
<i>Sphagnum papillosum</i>	8	
<i>Eriophorum vaginatum</i>	4	
<i>Erica tetralix</i>	4	

<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	5	
<i>Hylocomium splendens</i>	6	
<i>Narthecium ossifragum</i>	4	
<i>Myrica gale</i>	9	
<i>Hypnum jutlandicum</i>	6	
<i>Potentilla erecta</i>	4	
<i>Drosera rotundifolia</i>	4	
<i>Sphagnum affine</i>	4	
<i>Drosera anglica</i>	4	
Quadrat	Easting	Northing
39	236684	867742
Species	DOMIN	
<i>Calluna vulgaris</i>	6	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	9	
<i>Trichophorum cespitosum</i>	5	
<i>Molinia caerulea</i>	9	
<i>Erica tetralix</i>	5	
<i>Racomitrium lanuginosum</i>	4	
<i>Hylocomium splendens</i>	6	
<i>Narthecium ossifragum</i>	4	
<i>Hypnum jutlandicum</i>	5	
<i>Potentilla erecta</i>	4	
<i>Melampyrum pratense</i>	4	
Quadrat	Easting	Northing
40	236724	867891
Species	DOMIN	
<i>Calluna vulgaris</i>	4	
<i>Sphagnum capillifolium</i>	5	
<i>Molinia caerulea</i>	5	
<i>Erica tetralix</i>	4	
<i>Eriophorum angustifolium</i>	5	
<i>Narthecium ossifragum</i>	4	
<i>Carex echinata</i>	4	
<i>Potentilla erecta</i>	4	
<i>Sphagnum fallax</i>	7	
<i>Drosera rotundifolia</i>	4	

<i>Sphagnum magellanicum</i>		5
<i>Sphagnum affine</i>		4
Quadrat	Easting	Northing
41	236663	867972
Species		DOMIN
<i>Calluna vulgaris</i>		4
<i>Sphagnum capillifolium</i>		8
<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		4
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		5
<i>Narthecium ossifragum</i>		4
<i>Hypnum jutlandicum</i>		5
<i>Potentilla erecta</i>		4
<i>Sphagnum subnitens</i>		5
Quadrat	Easting	Northing
42	236621	868105
Species		DOMIN
<i>Calluna vulgaris</i>		4
<i>Cladonia sp.</i>		5
<i>Molinia caerulea</i>		8
<i>Sphagnum papillosum</i>		6
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		4
<i>Myrica gale</i>		5
<i>Carex echinata</i>		4
<i>Drosera rotundifolia</i>		4
<i>Sphagnum cuspidatum</i>		7
Quadrat	Easting	Northing
43	236671	868190
Species		DOMIN
<i>Calluna vulgaris</i>		4
<i>Cladonia sp.</i>		4
<i>Sphagnum papillosum</i>		7
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4

<i>Eriophorum angustifolium</i>		7
<i>Myrica gale</i>		6
<i>Drosera rotundifolia</i>		4
Quadrat	Easting	Northing
44	236341	869269
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		4
<i>Cladonia sp.</i>		8
<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		4
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		2
<i>Eriophorum angustifolium</i>		4
<i>Hylocomium splendens</i>		7
<i>Narthecium ossifragum</i>		3
<i>Potentilla erecta</i>		1
<i>Juncus squarrosus</i>		4
<i>Pleurozia purpurea</i>		4
<i>Drosera rotundifolia</i>		1
Quadrat	Easting	Northing
45	236284	869169
Species		DOMIN
<i>Calluna vulgaris</i>		10
<i>Sphagnum capillifolium</i>		4
<i>Cladonia sp.</i>		3
<i>Trichophorum cespitosum</i>		2
<i>Pleurozium schreberi</i>		4
<i>Rhytidiadelphus loreus</i>		4
<i>Dicranum scoparium</i>		4
Quadrat	Easting	Northing
46	236269	869092
Species		DOMIN
<i>Calluna vulgaris</i>		9
<i>Cladonia sp.</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		7
<i>Hylocomium splendens</i>		7

<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		4
<i>Pleurozium schreberi</i>		4
<i>Dactylorhiza maculata</i>		4
Quadrat	Easting	Northing
47	236258	869054
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		5
<i>Cladonia sp.</i>		4
<i>Trichophorum cespitosum</i>		9
<i>Sphagnum papillosum</i>		5
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		5
Quadrat	Easting	Northing
48	236180	868936
Species		DOMIN
<i>Calluna vulgaris</i>		8
<i>Cladonia sp.</i>		4
<i>Molinia caerulea</i>		5
<i>Erica tetralix</i>		4
<i>Hylocomium splendens</i>		8
<i>Narthecium ossifragum</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		5
<i>Juncus squarrosus</i>		4
<i>Pleurozium schreberi</i>		4
<i>Polytrichum commune</i>		4
<i>Succisa pratensis</i>		5
<i>Carex binervis</i>		5
<i>Dactylorhiza maculata</i>		1
<i>Anthoxanthum odoratum</i>		4
Quadrat	Easting	Northing
49	236133	868784
Species		DOMIN
<i>Calluna vulgaris</i>		8
<i>Sphagnum capillifolium</i>		7

<i>Cladonia sp.</i>	4	
<i>Molinia caerulea</i>	4	
<i>Eriophorum vaginatum</i>	5	
<i>Erica tetralix</i>	4	
<i>Hylocomium splendens</i>	7	
<i>Pleurozium schreberi</i>	5	
<i>Empetrum nigrum</i>	5	
Quadrat	Easting	Northing
50	236120	868746
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	4	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	9	
<i>Erica tetralix</i>	4	
<i>Hypnum jutlandicum</i>	6	
<i>Juncus squarrosus</i>	5	
<i>Pleurozium schreberi</i>	5	
Quadrat	Easting	Northing
51	236130	868689
Species	DOMIN	
<i>Calluna vulgaris</i>	7	
<i>Sphagnum capillifolium</i>	9	
<i>Molinia caerulea</i>	4	
<i>Eriophorum vaginatum</i>	4	
<i>Hypnum jutlandicum</i>	10	
<i>Juncus squarrosus</i>	4	
<i>Empetrum nigrum</i>	7	
Quadrat	Easting	Northing
52	236245	868613
Species	DOMIN	
<i>Calluna vulgaris</i>	7	
<i>Cladonia sp.</i>	4	
<i>Trichophorum cespitosum</i>	5	
<i>Molinia caerulea</i>	6	
<i>Erica tetralix</i>	4	
<i>Juncus squarrosus</i>	4	
<i>Drosera rotundifolia</i>	2	

Quadrat	Easting	Northing
53	236344	868565
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		4
<i>Molinia caerulea</i>		4
<i>Erica tetralix</i>		4
<i>Hylocomium splendens</i>		6
<i>Potentilla erecta</i>		4
<i>Pleurozium schreberi</i>		4
<i>Nardus stricta</i>		4
<i>Deschampsia flexuosa</i>		4
<i>Vaccinium myrtillus</i>		5
<i>Blechnum spicant</i>		4
Quadrat	Easting	Northing
54	236432	868371
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		5
<i>Eriophorum vaginatum</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		8
<i>Narthecium ossifragum</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		4
<i>Juncus squarrosus</i>		4
<i>Pleurozium schreberi</i>		5
<i>Dicranum scoparium</i>		4
Quadrat	Easting	Northing
55	236524	868418
Species		DOMIN
<i>Molinia caerulea</i>		4
<i>Sphagnum papillosum</i>		4
<i>Potentilla erecta</i>		4
<i>Juncus squarrosus</i>		4
<i>Pleurozium schreberi</i>		5
<i>Polytrichum commune</i>		5

<i>Nardus stricta</i>	9	
<i>Deschampsia flexuosa</i>	4	
<i>Galium saxatile</i>	4	
<i>Pedicularis sylvatica</i>	4	
<i>Festuca vivipara</i>	4	
<i>Pseudoscleropodium purum</i>	4	
Quadrat	Easting	Northing
56	236532	868438
Species	DOMIN	
<i>Sphagnum capillifolium</i>	4	
<i>Molinia caerulea</i>	8	
<i>Sphagnum papillosum</i>	4	
<i>Potentilla erecta</i>	5	
<i>Juncus squarrosus</i>	5	
<i>Juncus conglomeratus</i>	4	
<i>Polytrichum commune</i>	8	
<i>Galium saxatile</i>	5	
<i>Galium palustre</i>	4	
<i>Luzula multiflora ssp. Congesta</i>	4	
Quadrat	Easting	Northing
57	236553	868450
Species	DOMIN	
<i>Molinia caerulea</i>	10	
<i>Potentilla erecta</i>	4	
<i>Galium palustre</i>	4	
Quadrat	Easting	Northing
58	236589	868488
Species	DOMIN	
<i>Molinia caerulea</i>	10	
<i>Erica tetralix</i>	4	
<i>Hylocomium splendens</i>	4	
<i>Potentilla erecta</i>	4	
<i>Viola palustris</i>	4	
<i>Galium palustre</i>	4	
<i>Luzula multiflora ssp. Congesta</i>	4	
<i>Festuca vivipara</i>	4	
Quadrat	Easting	Northing
59	236821	868423

Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		5
<i>Erica tetralix</i>		4
<i>Carex echinata</i>		8
<i>Potentilla erecta</i>		4
Quadrat	Easting	Northing
60	236849	868372
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		4
<i>Molinia caerulea</i>		5
<i>Erica tetralix</i>		4
<i>Racomitrium lanuginosum</i>		5
<i>Narthecium ossifragum</i>		6
<i>Potentilla erecta</i>		4
<i>Drosera rotundifolia</i>		4
<i>Drosera anglica</i>		4
Quadrat	Easting	Northing
61	236888	868294
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		5
<i>Trichophorum cespitosum</i>		4
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		4
<i>Narthecium ossifragum</i>		5
<i>Potentilla erecta</i>		4
<i>Drosera rotundifolia</i>		4
<i>Betula nana</i>		5
<i>Drosera anglica</i>		4
Quadrat	Easting	Northing
62	237145	868417
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		8

<i>Cladonia sp.</i>		4
<i>Sphagnum papillosum</i>		4
<i>Erica tetralix</i>		5
<i>Drosera rotundifolia</i>		4
Quadrat	Easting	Northing
63	236755	868995
Species		DOMIN
<i>Molinia caerulea</i>		6
<i>Potentilla erecta</i>		4
<i>Carex nigra</i>		6
<i>Juncus conglomeratus</i>		9
<i>Viola palustris</i>		5
<i>Succisa pratensis</i>		4
<i>Trientalis europaea</i>		4
<i>Ranunculus repens</i>		4
Quadrat	Easting	Northing
64	236791	868983
Species		DOMIN
<i>Molinia caerulea</i>		6
<i>Carex echinata</i>		5
<i>Potentilla erecta</i>		4
<i>Sphagnum fallax</i>		5
<i>Juncus conglomeratus</i>		9
<i>Polytrichum commune</i>		5
<i>Viola palustris</i>		5
<i>Luzula multiflora ssp. Congesta</i>		4
<i>Pedicularis sylvatica</i>		4
Quadrat	Easting	Northing
65	237046	869242
Species		DOMIN
<i>Molinia caerulea</i>		9
<i>Sphagnum papillosum</i>		7
<i>Potentilla erecta</i>		4
<i>Sphagnum fallax</i>		5
<i>Deschampsia flexuosa</i>		4
<i>Pedicularis sylvatica</i>		4
Quadrat	Easting	Northing
66	237082	869430

Species		DOMIN
<i>Molinia caerulea</i>		5
<i>Potentilla erecta</i>		4
<i>Sphagnum fallax</i>		9
<i>Juncus conglomeratus</i>		5
<i>Juncus effusus</i>		8
Quadrat	Easting	Northing
67	237076	869494
Species		DOMIN
<i>Sphagnum papillosum</i>		4
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		4
<i>Carex echinata</i>		7
<i>Potentilla erecta</i>		4
<i>Sphagnum fallax</i>		9
<i>Carex nigra</i>		6
<i>Viola palustris</i>		4
<i>Succisa pratensis</i>		4
<i>Luzula multiflora ssp. Congesta</i>		4
Quadrat	Easting	Northing
68	237120	869801
Species		DOMIN
<i>Sphagnum papillosum</i>		4
<i>Carex echinata</i>		6
<i>Potentilla erecta</i>		4
<i>Carex nigra</i>		8
<i>Juncus effusus</i>		4
<i>Carex pulicaris</i>		4
<i>Ranunculus repens</i>		4
Quadrat	Easting	Northing
69	237124	869838
Species		DOMIN
<i>Molinia caerulea</i>		7
<i>Carex echinata</i>		5
<i>Carex nigra</i>		9
<i>Galium palustre</i>		4
<i>Menyanthes trifoliata</i>		5
Quadrat	Easting	Northing

70	236529	869223
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		5
<i>Cladonia sp.</i>		2
<i>Sphagnum papillosum</i>		8
<i>Eriophorum vaginatum</i>		5
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		4
<i>Narthecium ossifragum</i>		3
<i>Potentilla erecta</i>		3
<i>Drosera rotundifolia</i>		2
<i>Carex pulicaris</i>		3
<i>Aulacomnium palustre</i>		2
<i>Polygala serpyllifolia</i>		1
Quadrat	Easting	Northing
71	236543	869260
Species		DOMIN
<i>Calluna vulgaris</i>		4
<i>Sphagnum capillifolium</i>		4
<i>Cladonia sp.</i>		2
<i>Molinia caerulea</i>		6
<i>Sphagnum papillosum</i>		8
<i>Erica tetralix</i>		7
<i>Eriophorum angustifolium</i>		5
<i>Hylocomium splendens</i>		7
<i>Carex echinata</i>		3
<i>Potentilla erecta</i>		2
<i>Pleurozium schreberi</i>		2
Quadrat	Easting	Northing
72	236567	869139
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		5
<i>Eriophorum vaginatum</i>		6
<i>Erica tetralix</i>		4

<i>Eriophorum angustifolium</i>		5
<i>Narthecium ossifragum</i>		2
<i>Drosera rotundifolia</i>		2
Quadrat	Easting	Northing
73	236661	869091
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		6
<i>Eriophorum vaginatum</i>		7
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		2
<i>Hypnum jutlandicum</i>		4
<i>Drosera rotundifolia</i>		3
<i>Sphagnum cuspidatum</i>		3
Quadrat	Easting	Northing
74	236726	868976
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		3
<i>Sphagnum papillosum</i>		5
<i>Eriophorum vaginatum</i>		8
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		2
<i>Narthecium ossifragum</i>		4
<i>Pleurozium schreberi</i>		2
<i>Empetrum nigrum</i>		3
<i>Drosera rotundifolia</i>		3
<i>Aulacomnium palustre</i>		2
Quadrat	Easting	Northing
75	236814	868956
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		8
<i>Cladonia sp.</i>		7
<i>Trichophorum cespitosum</i>		7

<i>Eriophorum vaginatum</i>	5	
<i>Racomitrium lanuginosum</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Hypnum jutlandicum</i>	2	
<i>Empetrum nigrum</i>	2	
<i>Drosera rotundifolia</i>	2	
Quadrat	Easting	Northing
76	237158	869447
Species	DOMIN	
<i>Calluna vulgaris</i>	6	
<i>Sphagnum capillifolium</i>	5	
<i>Cladonia sp.</i>	5	
<i>Trichophorum cespitosum</i>	4	
<i>Sphagnum papillosum</i>	7	
<i>Eriophorum vaginatum</i>	6	
<i>Erica tetralix</i>	5	
<i>Racomitrium lanuginosum</i>	3	
<i>Eriophorum angustifolium</i>	4	
3.2.16 <i>Narthecium ossifragum</i>	3	
3.2.17 <i>Drosera rotundifolia</i>	3	
3.2.18 <i>Sphagnum cuspidatum</i>	2	
Quadrat	Easting	Northing
77	237186	869496
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	5	
<i>Sphagnum papillosum</i>	4	
<i>Eriophorum vaginatum</i>	6	
<i>Narthecium ossifragum</i>	4	
<i>Empetrum nigrum</i>	2	
<i>Drosera rotundifolia</i>	2	
Quadrat	Easting	Northing
78	237328	869723
Species	DOMIN	
<i>Calluna vulgaris</i>	4	

<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	4	
<i>Trichophorum cespitosum</i>	4	
<i>Sphagnum papillosum</i>	7	
<i>Eriophorum vaginatum</i>	7	
<i>Erica tetralix</i>	5	
<i>Narthecium ossifragum</i>	3	
<i>Myrica gale</i>	4	
<i>Empetrum nigrum</i>	2	
<i>Drosera rotundifolia</i>	3	
Quadrat	Easting	Northing
79	237461	869604
Species	DOMIN	
<i>Calluna vulgaris</i>	7	
<i>Sphagnum capillifolium</i>	8	
<i>Cladonia sp.</i>	5	
<i>Trichophorum cespitosum</i>	5	
<i>Eriophorum vaginatum</i>	8	
<i>Erica tetralix</i>	5	
<i>Eriophorum angustifolium</i>	2	
<i>Narthecium ossifragum</i>	4	
<i>Hypnum jutlandicum</i>	2	
<i>Empetrum nigrum</i>	2	
<i>Drosera rotundifolia</i>	2	
Quadrat	Easting	Northing
80	237505	869508
Species	DOMIN	
<i>Calluna vulgaris</i>	5	
<i>Sphagnum capillifolium</i>	4	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	6	
<i>Sphagnum papillosum</i>	5	
<i>Eriophorum vaginatum</i>	4	
<i>Eriophorum angustifolium</i>	4	
<i>Narthecium ossifragum</i>	6	
<i>Empetrum nigrum</i>	7	
<i>Drosera rotundifolia</i>	3	
Quadrat	Easting	Northing

81	237853	869622
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		4
<i>Trichophorum cespitosum</i>		6
<i>Sphagnum papillosum</i>		5
<i>Eriophorum vaginatum</i>		6
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		5
<i>Narthecium ossifragum</i>		4
<i>Myrica gale</i>		5
<i>Drosera rotundifolia</i>		2
<i>Sphagnum cuspidatum</i>		4
Quadrat	Easting	Northing
82	238411	869306
Species		DOMIN
<i>Calluna vulgaris</i>		5
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		4
<i>Trichophorum cespitosum</i>		4
<i>Sphagnum papillosum</i>		6
<i>Eriophorum vaginatum</i>		7
<i>Erica tetralix</i>		5
<i>Eriophorum angustifolium</i>		2
<i>Hypnum jutlandicum</i>		2
<i>Drosera rotundifolia</i>		2
<i>Vaccinium myrtillus</i>		2
Quadrat	Easting	Northing
83	238336	869359
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		6
<i>Cladonia sp.</i>		5
<i>Trichophorum cespitosum</i>		4
<i>Eriophorum vaginatum</i>		7
<i>Erica tetralix</i>		5
<i>Racomitrium lanuginosum</i>		4

<i>Eriophorum angustifolium</i>			4
<i>Narthecium ossifragum</i>			4
<i>Hypnum jutlandicum</i>			2
<i>Empetrum nigrum</i>			2
<i>Drosera rotundifolia</i>			2
Quadrat	Easting	Northing	
84	238150	869414	
Species			DOMIN
<i>Calluna vulgaris</i>			7
<i>Sphagnum capillifolium</i>			7
<i>Cladonia sp.</i>			4
<i>Molinia caerulea</i>			4
<i>Eriophorum vaginatum</i>			6
<i>Erica tetralix</i>			4
<i>Eriophorum angustifolium</i>			4
<i>Hylocomium splendens</i>			4
<i>Narthecium ossifragum</i>			2
<i>Myrica gale</i>			4
<i>Hypnum jutlandicum</i>			4
<i>Potentilla erecta</i>			3
<i>Drosera rotundifolia</i>			2
Quadrat	Easting	Northing	
85	238342	869523	
Species			DOMIN
<i>Calluna vulgaris</i>			5
<i>Sphagnum capillifolium</i>			7
<i>Cladonia sp.</i>			4
<i>Trichophorum cespitosum</i>			5
<i>Molinia caerulea</i>			4
<i>Sphagnum papillosum</i>			5
<i>Eriophorum vaginatum</i>			7
<i>Erica tetralix</i>			5
<i>Myrica gale</i>			5
<i>Drosera rotundifolia</i>			2
Quadrat	Easting	Northing	
86	238226	869552	
Species			DOMIN
<i>Calluna vulgaris</i>			5



<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	5	
<i>Eriophorum vaginatum</i>	7	
<i>Erica tetralix</i>	4	
<i>Racomitrium lanuginosum</i>	4	
<i>Narthecium ossifragum</i>	4	
<i>Drosera rotundifolia</i>	2	
<i>Sphagnum magellanicum</i>	4	
Quadrat	Easting	Northing
87	238071	869504
Species	DOMIN	
<i>Calluna vulgaris</i>	6	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	5	
<i>Sphagnum papillosum</i>	5	
<i>Eriophorum vaginatum</i>	7	
<i>Erica tetralix</i>	4	
<i>Narthecium ossifragum</i>	3	
<i>Hypnum jutlandicum</i>	3	
<i>Drosera rotundifolia</i>	2	
Quadrat	Easting	Northing
88	236391	869336
Species	DOMIN	
<i>Calluna vulgaris</i>	9	
<i>Cladonia sp.</i>	7	
<i>Trichophorum cespitosum</i>	5	
<i>Hylocomium splendens</i>	7	
<i>Hypnum jutlandicum</i>	5	
<i>Pleurozium schreberi</i>	4	
Quadrat	Easting	Northing
89	236973	868643
Species	DOMIN	
<i>Calluna vulgaris</i>	9	
<i>Sphagnum capillifolium</i>	7	
<i>Molinia caerulea</i>	4	
<i>Sphagnum papillosum</i>	6	
<i>Eriophorum vaginatum</i>	5	
<i>Erica tetralix</i>	2	



<i>Hylocomium splendens</i>	5	
<i>Carex echinata</i>	3	
<i>Pleurozium schreberi</i>	2	
<i>Drosera rotundifolia</i>	3	
<i>Rhytidiadelphus loreus</i>	2	
<i>Aulacomnium palustre</i>	2	
Quadrat	Easting	Northing
90	237150	868566
Species	DOMIN	
<i>Calluna vulgaris</i>	6	
<i>Sphagnum capillifolium</i>	7	
<i>Cladonia sp.</i>	4	
<i>Trichophorum cespitosum</i>	5	
<i>Eriophorum vaginatum</i>	7	
<i>Erica tetralix</i>	4	
<i>Eriophorum angustifolium</i>	2	
<i>Narthecium ossifragum</i>	2	
<i>Hypnum jutlandicum</i>	4	
Quadrat	Easting	Northing
91	237648	868489
Species	DOMIN	
<i>Calluna vulgaris</i>	8	
<i>Cladonia sp.</i>	5	
<i>Trichophorum cespitosum</i>	5	
<i>Molinia caerulea</i>	4	
<i>Erica tetralix</i>	4	
<i>Hylocomium splendens</i>	7	
<i>Potentilla erecta</i>	2	
<i>Juncus squarrosus</i>	2	
<i>Pleurozium schreberi</i>	4	
<i>Dicranum scoparium</i>	2	
<i>Sphagnum tenellum</i>	2	
Quadrat	Easting	Northing
92	237926	868587
Species	DOMIN	
<i>Calluna vulgaris</i>	7	
<i>Sphagnum capillifolium</i>	4	
<i>Cladonia sp.</i>	7	

<i>Trichophorum cespitosum</i>		5
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		2
<i>Potentilla erecta</i>		2
<i>Pleurozium schreberi</i>		2
Quadrat	Easting	Northing
93	237812	860632
Species		DOMIN
<i>Calluna vulgaris</i>		7
<i>Sphagnum capillifolium</i>		7
<i>Cladonia sp.</i>		7
<i>Trichophorum cespitosum</i>		4
<i>Molinia caerulea</i>		4
<i>Eriophorum vaginatum</i>		2
<i>Erica tetralix</i>		2
<i>Eriophorum angustifolium</i>		2
<i>Hylocomium splendens</i>		5
<i>Narthecium ossifragum</i>		2
<i>Myrica gale</i>		4
<i>Carex echinata</i>		4
<i>Pleurozium schreberi</i>		3
<i>Drosera rotundifolia</i>		2
<i>Polygala serpyllifolia</i>		1
Quadrat	Easting	Northing
94	237599	868710
Species		DOMIN
<i>Calluna vulgaris</i>		6
<i>Sphagnum capillifolium</i>		6
<i>Trichophorum cespitosum</i>		7
<i>Molinia caerulea</i>		2
<i>Erica tetralix</i>		4
<i>Eriophorum angustifolium</i>		2
<i>Narthecium ossifragum</i>		2
<i>Carex echinata</i>		5
<i>Hypnum jutlandicum</i>		2
<i>Potentilla erecta</i>		4
<i>Juncus squarrosus</i>		2


Quadrat	Easting	Northing
95	237445	869043
Species		DOMIN
<i>Calluna vulgaris</i>		8
<i>Sphagnum capillifolium</i>		5
<i>Cladonia sp.</i>		7
<i>Trichophorum cespitosum</i>		5
<i>Molinia caerulea</i>		7
<i>Erica tetralix</i>		2
<i>Narthecium ossifragum</i>		2
<i>Carex echinata</i>		4
<i>Hypnum jutlandicum</i>		4
<i>Potentilla erecta</i>		2
Quadrat	Easting	Northing
96	237621	869148
Species		DOMIN
<i>Molinia caerulea</i>		5
<i>Carex echinata</i>		8
<i>Potentilla erecta</i>		2
<i>Carex nigra</i>		2
<i>Juncus conglomeratus</i>		4
<i>Viola palustris</i>		2
<i>Sphagnum palustre</i>		4


ANNEX 3: TARGET NOTES


Target Note	Grid reference	Description	Photograph
TN1	NH 35963 67482	Extensive area of blanket bog on watershed at southern end of site. Some erosion of peat causing gullies. Dominant heather and deergrass.	
TN2	NH 36624 69244	Area of blanket bog, with erosion gullies in the peat, showing at least 2 m depth of peat present. Surrounding surface drier here than elsewhere with increased <i>Cladonia</i> lichen and deergrass. Occasional poaching by cattle or deer.	

TN3	NH 36740 69042	Eroded peat, not as deeply incised as TN2 to 1.5 m.	
TN4	NH 37158 69418	Wet blanket bog area with frequent small pools and some erosion gullies developing to 1 m depth. Greater amount of hare's tail cottongrass.	

TN5	NH 38288 69329	Blanket bog area at north east end of enclosed plantation woodland. Scattered hummocks provide dryer ground (wet heath) and have been planted with Scots pine and Silver birch, now forming young trees. Also scattered smaller self-seeded trees present, mainly silver birch with occasional alder.	
TN6	NH 38145 69459	Wet area within blanket bog approximately 50 m x 100 m, dominated by slender sedge. Cross-leaved heath and bog myrtle are frequent, along with occasional orchids, bog asphodel, round leaved sundew and sphagnum.	


TN7	NH 38323 69504	<p>Very shallow pond on course of a sluggish small stream issuing from the wet area described in TN15. Blanket bog area with over 0.5 m depth of peat. Mainly bare peat with occasional bogbean, common cottongrass, bog pondweed and sedges and rushes.</p> <p>Surrounded by typical blanket bog community of heather, cross-leaved heath, bog myrtle, hare's-tail cottongrass and sphagnums.</p>	
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TN8	NH 36723 68759	Enclosed plantation woodland area, young stands of either Scots Pine or silver birch on underlying and surrounded by wet heath ground layer community. In some areas of this woodland, deeper pockets of peat form blanket bog.	
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TN9	NH 37309 68574	Area of blanket bog on the higher ground of the woodland area. This bog grades to wet heath communities on the steeper sloping areas with shallower soils. Occasional gullies in peat to 1 m depth.	
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TN10	NH 37307 68653	A gully within the blanket bog contains a small area of mire vegetation dominated by soft rush and <i>Sphagnum fallax</i> .	
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TN11	NH 37455 68470	Scat – possibly fox.	
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TN12	NH 37621 69148	Mire community on flush, similar to many found on flushes and adjacent to watercourses on the site. Dominant purple moor grass and star sedge, abundant <i>Sphagnum palustre</i> and compact rush, occasional tormentil, black sedge and marsh violet.	
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TN13	NH 36692 67809	Pond with bottle sedge, black sedge, bogbean and common cottongrass.	
TN14	NH 36062 68111	Water vole droppings on stone in small, fast flowing stream. Greenish, no odour, around 1 cm in length.	

TN15	NH 38293 70319	Small semi-natural broad-leaved woodland (8 m tall). Birch, alder, rowan, grey willow. Understory grass and bracken.	
TN16	NH 38460 70208	Old building. Looks like still in use. No obvious holes in roof or under eaves. Moderate bat potential.	

TN17	NH 38692 69984	Semi-natural broad-leaved woodland (8 m tall). Birch, alder, rowan, grey willow. Understory ling, purple moorgrass, bracken, compact rush, soft rush, bog myrtle, devil's-bit scabious, Yorkshire-fog, wild angelica.	
TN18	NH 39327 69524	Similar to TN17.	
TN19	NH 39691 69356	Similar to TN17, continuation of broad-leaved semi-natural woodland.	Photograph not taken.

TN20	NH 39726 69441	Blanket bog.	
TN21	NH 38281 70343	Wet heath. Ling, purple moorgrass, <i>Sphagnum capillifolium</i> , cross-leaved heath, heath rush, deer grass, bilberry, <i>Hypnum jutlandicum</i> , hard fern.	