

Survey of potential Woodland Planting Site – Tannyranny, Legavallon Road Co Derry/Londonderry

**Field Survey completed by Judy Meharg MSc. Fieldfare Ecology.
Assessment of field data and orthophotography completed by Dr
Michael Meharg.**



**Client – Brian Malcomson, Scottish Woodlands.
Date of Survey Thursday 14th January 2021
Survey of potential Woodland Planting Site – Tannyranny,
Legavallon Rd Co Derry/Londonderry**

Introduction

Fieldfare Ecology was commissioned by Scottish Woodland to carry out a survey of a potential woodland planting site for the Forest Expansion Scheme to establish the presence of the priority habitat of Purple Moorgrass Rush Pasture (PMGRP) as requested by Forest Service.

The survey involved the following:

- Field assessment using the RCA template, and record photos as evidence at each plot.
- Preparation of a map showing the locations of the plots
- Provision of an email summary of the site and how much of the site can be planted and how much should remain as lowland heath. This should also be backed up with an annotated map showing the division.

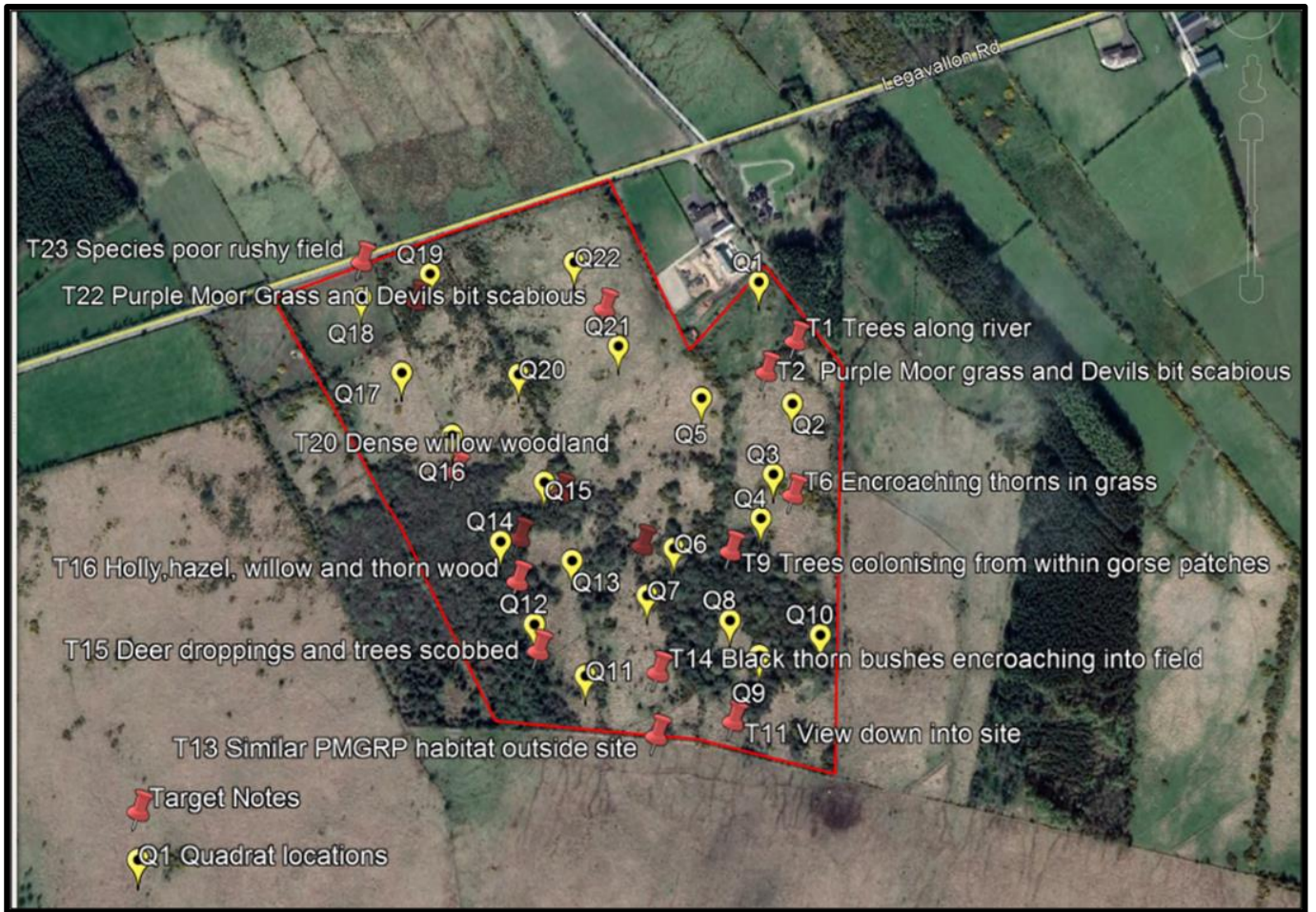
Survey

The site at Tannyranny comprises 15.35 ha of land on the lower slopes of Benbradagh Mountain. It is bounded by poor quality agricultural fences on drystone walls to the south and east and a scrub /woodland section along the western boundary. The Legavallon Road completes the northern boundary. It sits between 122m and 172m above sea level.

The owners are keen to plant up the site as it has always held copses of woodland and they are keen to expand tree cover in the area.

The survey of the site at Tannyranny was undertaken on the 14th January 2021 using DAERA's Rapid Condition Assessment by ecologist Judy Meharg and an assistant from Fieldfare Ecology Ltd. The quadrat data and orthophotography were assessed by Dr Michael Meharg. The aim of the survey was to determine the presence, quality and extent of priority habitats on the site that may include purple moorgrass rush pasture and existing woodland areas. It should be noted that a full botanical survey was not possible due to annual plants being absent at this time of year. However most PMGRP indicator species can be identified from dead stems, seed heads and leaves, these include – devils bit scabious, meadowsweet, bugle, sedges and orchids. The same applies for indicators for established woodland which include primrose, wood sorrel, woodruff, lesser celandine and ferns

22 No 2x2m quadrats were taken throughout the site to record the flora. This includes 14 grassland or scrub quadrats and 8 woodland quadrats. These data were supplemented with a species list and target notes. The species lists are located in Appendix A and the survey data are in attached files- Appendices B – E



Map 1 Site map showing quadrat locations and target notes



Map 2 Site map showing vegetation types

Soil depths were recorded at random intervals as there was no peat on site. The soil depth varied due to underlying boulders on the site. It was dark in nature and had a high organic matter.

Grassland

In the grass areas the dominant vegetation was either patches of Yorkshire fog or more widespread purple moorgrass *Molinia caerulea* and tufted hair grass *Deschampsia cespitosum* with a presence of devils bit scabious *Succisa pratensis* throughout. Meadowsweet *Filipendula ulmaria*, common spotted orchid and bugle *Ajuga reptans* are found in smaller numbers, these are all positive indicators of PMGRP. As of the 14th January none of the 14 grassland quadrats contained more than 3 PMGRP indicator species with only one containing 3, two containing 2 and eleven containing 1 indicator species. Five Indicator species should be present to qualify as good quality PMGRP habitat. Therefore, at the time of survey, the grassland habitat would be described as a poor quality PMGRP grassland. There

was a consistent but light presence of both jointed rush *Juncus articulatus* and soft rush *Juncus effusus* throughout the site.

Much of the grassland is rank with at least 300mm depth of vegetative litter throughout and at the time of survey appeared to be lightly grazed despite the presence of 5 horses grazing the site.

Field 11, at the south west corner of the site is infested with soft rush *Juncus effusus*

Large areas of the grassland contain encroaching pioneer scrub species of holly, hawthorn, blackthorn and gorse. Three of the 14 grassland quadrats recorded scrub encroachment.



Photo 1 Purple moorgrass



Photo 3 Common spotted orchid seed head



Photo 2 Gorse with transitional woodland behind

Devils bit scabious was recorded in 11 of the 14 grassland quadrats. It is the food plant of the Annex II butterfly the marsh fritillary butterfly. A search was completed which indicates that this site is not within a 10km radius of a known marsh fritillary site. Map 3.



Map 3 Shows location of closest known marsh fritillary butterfly breeding site with 10km buffer

Woodland

The site contains well established copses of transitional woodland which appear to be expanding with scrub and pioneer species on the fringe. The woodland is generally not a closed canopy but transitioning from pioneers such as hawthorn *Crataegus monogyna*, willows *Salix cinerea*, blackthorn *Prunus spinosa*, holly *Ilex aquifolium* and hazel *Corylus avellana* with a few taller ash *Fraxinus excelsior* and alder *Alnus glutinosa* present. The canopy height is 8-12 m with a dense impenetrable shrub cover of thorns and holly. Several areas of woodland contained species that would indicate long established woodland on the site eg woodruff *Gallium odoratum*, wood sorrel *Oxalis acetosella*, golden saxifrage *Chrysosplenium oppositifolium*, lesser celandine *Ranunculus ficaria* and primrose *Primula vulgaris*.



Photo 4 Coppiced hazel within the woodland



Photo 5 Woodland ground flora of wood sorrel and woodruff

The site therefore contains two priority habitats - transitional woodland (27%), and poor quality PMGRP (55%) of which half contains encroaching thorns and holly. Dense gorse patches are widespread (15%) with the remaining 3% non priority habitat (field 11) see map 2.

The areas of existing woodland on the site have been identified in the FES application and are to remain and integrated into the planting plan.

Wider Contextual Considerations

From assessing site orthophotography and maps of the surrounding area there is an extensive area of similar grassland habitat to the south and east of the site, whilst there are several blocks of broadleaved woodland and plantation conifer woodland close to the north east boundary of the site.

Along the eastern boundary of the site broadleaved woodland continues into the adjacent field so enhancing the biodiversity value of the block and would be complemented by a carefully planned woodland planting on the area where the FES is targeted.



Map 4 Contextual Site Map

Current use of the site.

The site has 4 LPIS listed fields Series no 5/056/079 fields 11,13,15, and 16. All fields were claimed for Basic Farm Payment in 2020. The owners have only recently re-established management control over the site and the Rapid Condition Assessment shows it has been lightly grazed. Over the past years the site has scrubbed over with gorse common. There are currently 5 horses grazing the site and frequent signs of deer were noted. The surveyors frequently came across deer dropping and found footprints of deer and also noted browsing damage at the edge of one area of woodland. This will have management implications for any planting schemes. Fox trails were also noted and 3 snipe were raised on site. It is likely that Irish hare would be present in this habitat although no signs were recorded. Rabbits did not appear to be present on the site.



Photo 6 Deer droppings



Photo 7 Deer hoof print

Recommendations

From habitat survey data and assessment of orthophotography it is the opinion of the surveyors that much of the site would be suitable for planting as woodland species and rather than impacting on the poor quality PMGRP habitats present, planting could be concentrated on the areas degraded by dense gorse, encroaching thorns and in field 11. Existing established woodland should remain as this will be an excellent source of native woodland ground flora and biodiversity for newly planted areas, which would enhance the opportunities for carbon sequestration, biodiversity gain and landscape. Planting of conifer species such as Sitka spruce, primarily for production of timber, could be accommodated across the site with screening and buffers of native species linking to existing woodland on the site.. Additional woodland planting would complement the existing woodland cover in the immediate area and would be a natural fit blending with the local character of the landscape.

Native trees should also be planted into the existing woodland to increase species diversity and age structure.

It is recommended that an area of PMGRP be fenced off to increase grazing focus and act as remedial management in the grassland habitat. The Environmental Farming Scheme recommends a grazing density of 1 livestock unit/ha from 1st May to 31st December, and removal of encroaching scrub for PMGRP.

The breakdown of proposed area is:

Plant up existing woodland to improve species and age diversity 4.35ha

New woodland planting 6.8ha

Retained with remedial management prescription - PMGRP 4.2ha

Total area to plant 11.15ha

Total area 15.35 ha*

*Calculations taken from Google Earth



Map 5 Site map showing, recommended areas for new tree planting including areas of existing woodland and area to retain as PMGRP grassland habitat.

Judy Meharg MSc

Dr Michael Meharg

Fieldfare Ecology Ltd

21 January 2021

Appendix A Plant Species List

Grassland Species Recorded

(As the survey was undertaken in January this may not represent the full range of species present)

Purple Moor Grass Rush Pasture Positive Indicators Present		
Latin Name	Common Name	Comment
<i>Ajuga reptans</i>	Bugle	Throughout
<i>Carex flacca</i>	Glaucous Sedge	One small area
<i>Dactylorhiza sp.</i>	Orchid sp.	Not common
<i>Epilobium palustre</i>	Marsh Willowherb	Not common
<i>Filipendula ulmaria</i>	Meadowsweet	In patches
<i>Primula vulgaris</i>	Primrose	Not Common
<i>Ranunculus flammula</i>	Lesser Spearwort	One patch
<i>Succisa pratensis</i>	Devil's-bit Scabious	Common throughout

Purple Moor Grass Rush Pasture Negative Indicators Present		
Latin Name	Common Name	Comment
<i>Cirsium vulgare</i>	Spear Thistle	Not common
<i>Deschampsia cespitosum</i>	Tufted Hair-grass	Frequent
<i>Holcus lanatus</i>	Yorkshire-fog	Frequent on lower part of the site
<i>Ranunculus repens</i>	Creeping Buttercup	Frequent
<i>Trifolium repens</i>	White Clover	Not common

Other species present		
Latin Name	Common Name	Comment
<i>Agrostis stolonifera</i>	Creeping bent	Throughout
<i>Cardamine pratensis</i>	Ladies smock	One plant
<i>Calluna vulgaris</i>	Ling	One plant
<i>Cynosurus cristatus</i>	Created dogs tail	Not common
<i>Festuca sp</i>	Fescue	Throughout
<i>Geum rivale</i>	Herb Bennett	Not common
<i>Juncus articulatus</i>	Jointed rush	Frequent
<i>Juncus effusus</i>	Soft rush	Frequent
<i>Hypericum sp</i>	St Johns wort	Not common
<i>Mollinea caerulea</i>	Purple Moorgrass	Dominant throughout
<i>Plantago lanceolata</i>	Ribwort plantain	Throughout
<i>Ranunculus acris</i>	Meadow buttercup	Frequent
<i>Ulex europaeus</i>	Gorse	Frequent

Woodland Species Recorded

(As the survey was undertaken in January this does not represent the full range of species present)

Positive indicator species	
Latin Name	Common Name
<i>Alnus glutinosa</i>	Alder
<i>Betula pubescens</i>	Downy Birch
<i>Blechnum spicant</i>	Hard-fern
<i>Chrysosplenium oppositifolium</i>	Opposite-leaved Golden-saxifrage
<i>Corylus avellana</i>	Hazel
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Geum urbanum</i>	Herb Bennett / Wood Avens
<i>Ilex aquifolium</i>	Holly
<i>Iris pseudacorus</i>	Yellow Iris/Yellow Flag
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Oxalis acetosella</i>	Wood-sorrel
<i>Primula vulgaris</i>	Primrose
<i>Ranunculus ficaria</i>	Lesser Celandine
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea</i>	Grey Willow
<i>Sorbus aucuparia</i>	Rowan/Mountain ash

Other Species Recorded	
Latin Name	Common Name
<i>Crataegus monogyna</i>	Hawthorn
<i>Fragaria vesca</i>	Wild strawberry
<i>Hedera helix</i>	Ivy
<i>Gallium odoratum</i>	Woodruff
<i>Rosa canina</i>	Dog Rose
<i>Rubus fruticosus</i>	Bramble
<i>Ulex europaeus</i>	Gorse
<i>Prunus spinosa</i>	Black thorn