

Scientific name	<i>Betula pubescens</i> – <i>Agrostis capillaris</i> woodland
Common name	Downy Birch – Common Bent woodland
Community code	WL4B

Vegetation

Betula pubescens typically dominates the low canopy of this woodland community, usually accompanied by *Sorbus aucuparia* and frequently by *Quercus petraea* (mean canopy height = 12.8 m, $n = 31$). The understorey is composed of *Ilex aquifolium* and *Corylus avellana*. Other tree species are rare. The field layer has a distinctly grassy character as *Agrostis capillaris*, *Agrostis canina/vinealis* and *Anthoxanthum odoratum* are amongst the constants and *Holcus lanatus* is frequent. Other common plants in the field layer include *Galium saxatile* and *Potentilla erecta* (both characteristic of the upland grasslands of group GL4), *Oxalis acetosella*, *Blechnum spicant* and *Rubus fruticosus* agg. The bryophyte layer is typically dominated by *Thuidium tamariscinum* accompanied by *Polytrichum formosum*, *Isoetecium myosuroides*, *Rhytidiadelphus loreus*, *Mnium hornum*, *Hylocomium splendens*, *Scleropodium purum* and *Dicranum scoparium*.

Ecology

This is a successional woodland community of humid, acidic podzols and well-drained mineral soils (mean organic content = 29.6%, $n = 32$). It typically occurs on fairly steep slopes in uplands (mean slope = 13.7°, $n = 32$; mean altitude = 107 m, $n = 32$) and, given the grassland indicators present in the field layer, in areas where the grazing levels of deer or livestock are high. Soils are infertile

Sub-communities

Two sub-communities are described for this community. The *Ilex aquifolium* – *Plagiochila spinulosa* sub-community (WL4Bi) is a more oceanic variant with a richer bryophyte flora, the presence of filmy ferns (*Hymenophyllum* spp.) and a high frequency of both *Ilex* and *Sorbus*. The *Rubus fruticosus* agg. – *Salix cinerea* sub-community (WL4Bii) lacks these indicators while *Holcus lanatus* and the titular species are more frequent.

Similar communities

The abundance of grass species is a good indicator for separating these stands from the other birch communities. Furthermore, these woods are far more diverse in plant species than any others in group WL4. They are related to, and probably successional to, the acidophilous oakwoods of group WL1 (q.v.).

Records and distribution

Number of records (all)

Clearly assigned:	74
Transitional:	18
Total:	92

Number of records (mapped)

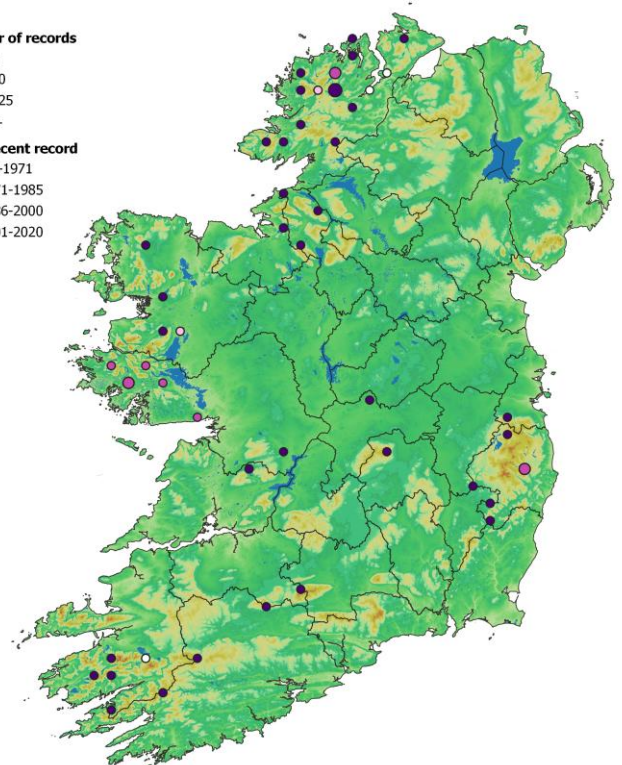
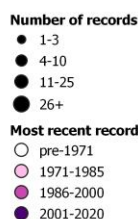
2001-2020:	38
1986-2000:	21
1971-1985:	23
Pre-1971:	5
Total:	87

Number of hectads (by most recent time period)

2001-2020:	35
1986-2000:	7
1971-1985:	2
Pre-1971:	3
Total:	47

Number of hectads (records in each time period)

2001-2020:	35
1986-2000:	8
1971-1985:	4
Pre-1971:	4



Synoptic table (n = 71)

Species	Frequency (from I-V)	Cover min (med) max	Species	Frequency (from I-V)	Cover min (med) max
<i>Thuidium tamariscinum</i>	V	+-(4)-8	<i>Vaccinium myrtillus</i>	III	+-(2)-5
<i>Betula pubescens</i>	V	2-(7)-9	<i>Viola riviniana/reichenbachiana</i>	III	1-(2)-4
<i>Oxalis acetosella</i>	V	+-(4)-8	<i>Kindbergia praelonga</i>	III	+-(2)-6
<i>Agrostis capillaris</i>	V	2-(5)-8	<i>Rubus fruticosus</i> agg.	III	+-(2)-8
<i>Blechnum spicant</i>	V	+-(3)-8	<i>Lonicera periclymenum</i>	III	+-(2)-5
<i>Polytrichum formosum</i>	V	+-(2)-5	<i>Plagiothecium undulatum</i>	III	+-(1)-3
<i>Isoetes macrospora</i>	V	1-(2)-5	<i>Frullania tamarisci</i>	III	+-(2)-3
<i>Sorbus aucuparia</i>	V	1-(4)-8	<i>Holcus lanatus</i>	III	+-(3)-7
<i>Anthoxanthum odoratum</i>	IV	1-(3)-9	<i>Hypnum cupressiforme</i>	III	+-(2)-4
<i>Mnium hornum</i>	IV	+-(2)-4	<i>Diplophyllum albicans</i>	III	+-(2)-4
<i>Rhytidiadelphus loreus</i>	IV	1-(3)-7	<i>Hypnum jutlandicum</i>	III	+-(2)-4
<i>Ilex aquifolium</i>	IV	+-(3)-8	<i>Hypnum andoi</i>	III	+-(2)-3
<i>Dicranum scoparium</i>	IV	+-(2)-4	<i>Dryopteris dilatata</i>	III	+-(2)-5
<i>Potentilla erecta</i>	IV	+-(2)-5	<i>Rhytidiadelphus triquetrus</i>	III	+-(2)-7
<i>Corylus avellana</i>	IV	1-(4)-9	<i>Dryopteris aemula</i>	III	+-(2)-3
<i>Hylocomium splendens</i>	IV	1-(3)-7	<i>Quercus petraea</i>	III	+-(6)-8
<i>Scleropodium purum</i>	IV	+-(2)-5	<i>Hedera helix</i>	III	+-(2)-5
<i>Agrostis canina/vinealis</i>	IV	1-(3)-7	<i>Scapania gracilis</i>	III	+-(2)-5
<i>Dicranum majus</i>	III	+-(2)-3	<i>Pseudotaxiphyllum elegans</i>	III	+-(2)-4
<i>Galium saxatile</i>	III	1-(2)-4	<i>Saccogyna viticulosa</i>	III	+-(2)-3

Affinities

GHI: WN1 Oak-birch-holly woodland / WN2 Oak-ash-hazel woodland / WN7 Bog woodland

ZM: CC02B Lonicero periclymeni-Betulion pubescentis Géhu 2006

EUNIS: G1.9112 Medio-European dry acidophilous birch woods

NVC: W17c *Quercus petraea*-*Betula pubescens*-*Dicranum majus* woodland *Anthoxanthum odoratum*-*Agrostis capillaris* sub-community (54.5%)

Annex I: No significant correspondence

Proxy environmental data

Light: 5.8 Reaction: 4.1 Wetness: 6.0 Fertility: 3.9 Salinity: 0.0

Conservation value

This is on average a very species-rich woodland community (total species/100 m² = 48.4, n = 69) with an exceptionally diverse bryophyte flora (bryophyte species/100 m² = 22.8, n = 69). Greater diversity occurs in sub-community WL4Bi.

Management

These sites typically have high levels of grazing so natural regeneration of tree species can be impaired. Locally, woods have been fenced and deer culling employed to try to address this. Other threats are woodland clearance and invasion by non-native species such as *Rhododendron ponticum*. Spraying with herbicide, cutting, and removal of seedlings have been used to combat the spread of this species within these woods.

Key references

Perrin, P.M., Martin, J.R., Barron, S.J., O'Neill, F.H., McNutt, K.E., Delaney, A. (2008) National Survey of Native Woodlands 2003-2008. (unpublished). National Parks and Wildlife Service, Dublin.

Hanrahan, J. (1997) The effects of grazing on vegetation, regeneration and soils of an oak woodland in Glendalough, County Wicklow. (M.Sc. thesis). University College Dublin.

Telford, M. (1977). Glenveagh National Park: the past and present vegetation. (Ph.D. thesis) Trinity College Dublin.

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Synopsis author(s): P.M. Perrin



Photo 1. WL4B *Betula pubescens* – *Agrostis capillaris* woodland, Drumfad, Sligo (F. O'Neill/P. Perrin, June 2006)



Photo 2. WL4B *Betula pubescens* – *Agrostis capillaris* woodland, Reduff, Monaghan
(S. McCormack/P. Perrin, September 2005)