



National Survey of Native Woodlands 2003-2008



Volume I: Main report

Philip Perrin, James Martin, Simon Barron,
Fionnuala O'Neill, Kate McNutt & Aoife Delaney



Botanical, Environmental & Conservation Consultants Ltd. 2008

A report submitted to the National Parks & Wildlife Service

Executive Summary

The National Survey of Native Woodlands in Ireland included the survey of 1,217 woodland sites across all 26 counties of the Republic of Ireland during 2003-2007. Site selection was carried out using the Forest Inventory Planning System 1998 (FIPS) and local knowledge. Surveys comprised the recording of site species lists and information at the site level on topography, management, grazing, natural regeneration, geographical situation, adjacent habitat types, invasive species, dead wood and boundaries. Relevés were recorded in each of the main stand types identified at each site. For each relevé, data were recorded on vascular plant and bryophyte cover abundance, soil type and soil chemistry, notable lichens, stand structure, and natural regeneration. Data were also incorporated from a number of external sources. This resulted in a database with data from 1,320 sites and 1,667 relevés.

The relevé dataset was analysed using hierarchical clustering and indicator species analysis. Four major woodland groups were defined: *Quercus petraea* – *Luzula sylvatica* (260 relevés), *Fraxinus excelsior* – *Hedera helix* (740 relevés), *Alnus glutinosa* – *Filipendula ulmaria* (296 relevés) and *Betula pubescens* – *Molinia caerulea* (371 relevés). Further analysis of the dataset divided these four groups into twenty-two vegetation types. For each vegetation type a synoptic table of the floristic data was produced, together with a list of key indicator species, a list of example sites, summary environmental and stand structure data and a distribution map.

A range of data types from both the general site survey (e.g. area, occurrence of rare species, presence of hydrological features) and the relevé dataset (e.g. structural diversity, regeneration status) was used to produce a conservation score for each of the woodlands surveyed. This score allows the relative conservation value of each site to be assessed, and provides baseline data which can be used when monitoring sites in the future. A notable finding was that the west of the country contained 20 of the 27 top-ranked sites. In addition, all of these top-ranked sites have NHA and/or SAC designation. A number of sites that ranked highly in the conservation assessment lack any designation; these have been highlighted as being worthy of further examination. A threat score was also produced based on general site survey and relevé data to give an indication of the threats posed to woodlands from primarily internal sources, such as invasive species infestation. These threat scores should be regarded as the minimum threat potential to Irish woodlands as, for example, sites at which invasive species are a major problem may have failed to meet the criteria for survey.

Guidelines are given in this document for the monitoring of the four Annex I woodland habitats that occur in Ireland. For each Annex I habitat assessment three parameters are scored: area, structure and functions, and future prospects. Threshold values for each of these parameters are given and the recommended methodology for carrying out the monitoring assessments is laid out.

The outputs of the NSNW will provide a valuable resource for environmental managers, ecological researchers and policy makers to work towards the conservation of Irish woodlands.



BOTANICAL, ENVIRONMENTAL & CONSERVATION CONSULTANTS LTD

www.botanicalenvironmental.com

27 Upper Fitzwilliam Street, Dublin 2.

Tel: 01 6328615/616, Fax: 01 6328601

Email: info@botanicalenvironmental.com

Acknowledgements

The National Survey of Native Woodlands 2003-2008 has been one of the largest ecological surveys to be completed in Ireland. It would not have been possible without the hard work and assistance of a large number of people and to these the authors extend their gratitude.

Fieldwork:

Amanda Browne, Edwina Cole, Mihai Coroi, Kieran Connolly, John Cross, Jenny Dowse, Fiona Dunne, Janice Fuller, Mairéad Gabbett, Thérèse Higgins, Lisa Kilmartin, Maria Long, Róisín McCauley, Mark Clancy, Mark McCorry, Steve McCormack, Chris McMahon, Mieke Muyliaert, Saoirse O'Donoghue, Eileen Power, Anna Robinson, Jenni Roche, Niamh Roche, Louise Scally, George Smith and Aisling Walsh.

External data sources:

Amanda Browne, Willie Crowley, Fiona Dunne, M. Fanning, Susan Fuller, Daniel Kelly, Mark McCorry, Alan Poole, Niamh Roche, Sasha Bosbeer, George Smith and Fernando Valverde.

Technical support and advice:

John Cross, Maria Cullen, Andrew Fitzgerald, Howard Fox, Naomi Kingston, Deirdre Lynn, Aileen O'Sullivan, Sylvia Reynolds, George Smith and Steve Waldren.

We are further indebted to the many BSBI recorders, NPWS staff and other recorders who suggested sites for survey and the many, many landowners who permitted us to survey their lands and were forthcoming with background information.

This study has been funded by the National Parks and Wildlife Service (Department of the Environment, Heritage & Local Government) and the Forest Service (Department of Agriculture, Fisheries & Food).



Cover photo: Vernal carpet of *Allium ursinum* and *Anemone nemorosa* beneath canopy of *Fraxinus excelsior*, Hazel Wood, Co. Monaghan (Philip Perrin, April 2005)

The National Survey of Native Woodlands 2003-2008

Volume I: Main Report

Contents

	Page
Executive summary	
Acknowledgements	
Contents	
1 Introduction	1
1.1 Rationale	1
1.2 Studies of Irish woodlands	1
1.3 Classification of Irish woodlands	2
1.4 Extent of Irish woodlands	4
1.5 Threats to Irish woodlands	7
1.6 Conservation of Irish woodlands	7
1.7 Aims of the project	9
1.8 Structure of the report	9
2 Methods	13
2.1 Site selection	13
2.2 General site survey	15
2.3 Relevé survey	18
2.4 Incorporation of external data	19
2.5 Identification of Annex I habitats and compilation of monitoring guidelines	21
2.6 Conservation and threat assessment	22
2.7 Vegetation analysis	26
3 Results	31
3.1 Coverage of the survey	31
3.2 Area	32
3.3 Landscape features	33
3.4 Adjacent land cover	34
3.5 Invasive species	36
3.6 Management and land use	37
3.7 Grazing	40
3.8 Hydrological and man-made features	41
3.9 Stand structure	42
3.10 Merchantable timber	49
3.11 Species richness	50
3.12 Natural regeneration	53
3.13 Dead wood	56
3.14 Lichens	57
3.15 Notable species	57
3.16 Species frequency	58
3.17 Vegetation analysis	61
3.18 Conservation assessment	63

		Page
3.19	Threat assessment	65
4	Discussion	69
4.1	Critique of existing classifications	69
4.2	Conservation status of Irish woodlands	74
4.3	Utilisation of the data set	76
4.4	Concluding remarks	77
	References	79
	Technical Addendum: Annex I woodland habitat monitoring guidelines	83

List of Appendices

Appendix 1: Native status of trees in Ireland	95
Appendix 2: Field sheets	96
Appendix 3: Frequency of species recorded	103
Appendix 4: Conservation scores	115
Appendix 5: Top-ranked sites by county	150
Appendix 6: Threat scores	157

List of Tables

Table 1.1	Relationship between phytosociological scheme of Kelly (2005) and woodland classification of Cross (2005)	3
Table 1.2	Area and density of native woodland by county.	6
Table 1.3	Size of contiguous broadleaf or broadleaf / conifer units in FIPS 1998	6
Table 2.1	Definition of grazing levels	17
Table 2.2	Classification of <i>Rhododendron</i> infestation (Cross 1981, 1982)	17
Table 2.3	Classification of invasive shrubs and herbs (excluding <i>Rhododendron</i>)	18
Table 2.4	Criteria used in the calculation of the conservation score of each site	24
Table 2.5	Notable species used as part of the conservation assessment	25
Table 2.6	Criteria used in the calculation of the threat score of each site	25
Table 3.1	Number of sites surveyed, number of relevés recorded and number of Annex I habitat relevés by county	32
Table 3.2	Frequency of recording of adjacent land use classes using the categories of Fossitt (2000)	35
Table 3.3	Frequency in percent of selected invasive tree species at sites and within four size classes	37
Table 3.4	Frequency and basal area of adult trees and stems by species	45
Table 3.5	Frequency of stems of merchantable size by species	49
Table 3.6	Frequency of viable log length and stem defects by species	50
Table 3.7	Most frequently regenerating tree species	53
Table 3.8	Most frequently recorded lichen species	57
Table 3.9	Frequency of records for notable vascular plant	58
Table 3.10	Species occurring in more than 50% of sites surveyed	60
Table 3.11	Overview of the native woodland classification scheme	61

	Page
Table 3.12 The top 27 sites ranked by conservation assessment score	64
Table 3.13 The top 19 undesignated sites ranked by conservation assessment score	65
Table 3.14 The top 21 sites ranked by threat assessment score	67

List of Figures

Fig. 1.1	Extent in Ireland of (a) all forested land and (b) mixed and broadleaved woodland not dominated by beech.	5
Fig. 1.2	Area and density of native woodlands by county.	5
Fig. 2.1	Overlay of FIPS on six inch map for Ballykeefe Nature Reserve, Kilkenny	14
Fig. 2.2	Aerial photograph for Ballykeefe Nature Reserve, Kilkenny	14
Fig. 3.1	Coverage of the survey on hectad (10 km x 10 km square) basis	31
Fig. 3.2	Area of surveyed sites	33
Fig. 3.3	Frequency of landscape features associated with surveyed sites	34
Fig. 3.4	Frequency of invasive shrub species	36
Fig. 3.5	Frequency of observed management and land use at surveyed sites	38
Fig. 3.6	Frequency of different grazing levels	40
Fig. 3.7	Frequency of evidence of grazing by different animals	41
Fig. 3.8	Frequency of hydrological and man-made features	42
Fig. 3.9	Mean height of adult tree stems for common species	44
Fig. 3.10	Proportion of stems with different crown position for common species	44
Fig. 3.11	Tree size frequency curves for common tree species	46
Fig. 3.12	Vascular plant richness in relation to woodland area with overlay of logarithmic model	51
Fig. 3.13	Mean vascular species richness of sites with and without woodland in the 1840s	51
Fig. 3.14	Vascular species richness by area for long-established (1840s) woodland	52
Fig. 3.15	Vascular species richness by area for new (non-1840s) woodlands	52
Fig. 3.16	The abundance of dead wood in six different categories	56
Fig. 3.17	NMS ordination plot of 1,667 woodland relevés	62
Fig. 3.18	Distribution of conservation scores among the 1,313 sites assessed	63
Fig. 3.19	Distribution of threat scores among the 1,217 sites that received a score	66

List of Plates

Woodland Ferns & Horsetails	11
Wooded Landscapes	29
Threats to Woodlands	68
Woodland Mosses & Lichens	78

CHAPTER 1: INTRODUCTION

1.1 Rationale

Ireland is one of the least forested countries in Europe with about 9% of its area under forest cover, the majority of which is composed of commercial conifer plantations (Anon. 2007a). Only around 2% of the country is covered by what is termed native or semi-natural woodland, that is, woodland dominated by native tree species¹, and much of this is highly fragmented and modified (Gallagher *et al.* 2001). This scarcity of native woodland is the result of millennia of human activity. The National Biodiversity Plan has set a general target of increasing the broadleaf component of total annual afforestation to 30% by 2007 (Anon. 2002). It also sets a target for the recently launched Native Woodland Scheme of creating 15,000 ha of new native woodland. Such significant changes in the country's landscape must be underpinned by a sound ecological knowledge base. This is also required if Ireland is to meet its obligations to conserve its Annex I habitats under the EU Habitats Directive. The formulation of a national native woodland strategy is, however, hindered by the lack of an extensive inventory of sites and a detailed classification system. The need for these two key resources has been recognised by the National Parks and Wildlife Service (NPWS) and by actions in the National Biodiversity Plan (Anon. 2002). Following trial surveys (Browne *et al.* 2000, van der Sleen & Poole 2002) the National Survey of Native Woodlands (NSNW) was commissioned by the NPWS and initiated in 2003.

1.2 Studies of Irish woodlands

Previous scientific studies of native woodland diversity in Ireland have focused largely on particular types of woodland, for example, acid oakwoods (Kelly & Moore 1975), woods over limestone (Kelly & Kirby 1982), wet woodland (Kelly & Iremonger 1997, Cross & Kelly 2003), yew woods (Perrin 2002 and Perrin *et al.* 2006a), stands on eskers (Cross 1992) and stands on intact bogs (Cross 1987). Previous inventories of native woodlands have concentrated on sites with commercial potential (O'Flanagan 1973, Purcell 1979) and sites of designation quality (Anon. 1981), whilst the comprehensive National Forest Inventory (Anon. 2007a), which looked at all types of forested land, focused primarily on timber resources. Thus, there has hitherto been a lack of a systematic national scale survey of native woodlands aimed at habitat and wildlife conservation. In particular, there is a lack of knowledge of the smaller or less economically valuable woods which constitute the vast majority of the country's fragmented resource.

¹ Appendix 1

1.3 Classification of Irish woodlands

The classification of semi-natural habitats in Ireland has largely followed the subjective central European phytosociological approach advocated by Braun-Blanquet & Tüxen (1952). Kelly (2005) outlined a scheme of 15 associations and subassociations found in Ireland derived from a previous sequence of woodland studies (Kelly & Moore 1975, Kelly 1981, Kelly & Kirby 1982, Kelly & Iremonger 1997, Cross & Kelly 2003). Fossitt (2000) presents a simplified and standardised way to classify all habitats in Ireland including woodlands but it is based on the results of previous phytosociological studies such as those above rather than being based objectively on empirical data. The scheme of Fossitt (2000) has been widely adopted by authorities in Ireland for habitat surveying and mapping purposes, but it is generally deemed not suitable for detailed study and evaluation, and indeed this was not its purpose. Fossitt (2000) identifies seven native woodland categories and two modified / non-native woodland categories as follows:

WN1 Oak-birch-holly woodland: These woods occur on acid or base-poor, reasonably well-drained soils. They are usually dominated by *Quercus petraea* (sometimes with *Quercus robur* or their hybrids). The field layer typically includes *Vaccinium myrtillus*, *Blechnum spicant* and *Luzula sylvatica*.

WN2 Oak-ash-hazel woodland: These woods occur on reasonably well-drained, base-rich soils or on rocky limestone terrain. They are typically dominated by some combination of *Quercus robur*, *Fraxinus excelsior* and *Corylus avellana*. The field layer often includes *Circaea lutetiana*, *Polystichum setiferum*, *Viola riviniana*, *Arum maculatum*, *Fragaria vesca*, *Allium ursinum* and *Potentilla sterilis*.

WN3 Yew woodland: These are stands dominated by *Taxus baccata*. This woodland type is very rare in Ireland and is found on shallow, rocky limestone soils. The field layer is characteristically sparse.

WN4 Wet pedunculate oak-ash woodland: These are woods occurring on ground that is subject to winter flooding or waterlogging but which dries out in summer. It is typical on poorly drained, heavy clay soils and is usually dominated by some combination of *Quercus robur* and *Fraxinus excelsior*. *Alnus glutinosa* can be locally abundant. The field layer typically includes *Filipendula ulmaria*, *Circaea lutetiana*, *Rubus fruticosus* and *Chrysosplenium oppositifolium*.

WN5 Riparian woodland: These are wet woodlands that are subject to regular flooding along river margins or on low-lying river islands. The canopy is dominated by a mixture of native and non-native willows (*Salix* spp.), and *Alnus glutinosa* may be occasional. The field layer typically includes *Urtica dioica*, *Angelica sylvestris*, *Oenanthe crocata*, *Calystegia sepium* and *Phalaris arundinacea*.

Table 1.1 Relationships between existing classifications and descriptions of Irish woodlands

Phytosociological system (from Kelly 2005)	Heritage Council categories (from Fossitt 2000)	Irish native woodland classification (from Cross 2005)	Potential natural vegetation units (from Cross 2006)
Blechno-Quercetum typicum	WN1 Oak-birch-holly woodland	A1 Species-poor oak woodland on drier sites	Unit 2. Species-poor oak (<i>Quercus petraea</i>) forests
Blechno-Quercetum scapanietosum	WN1 Oak-birch-holly woodland	A2 Moss- and lichen-rich oak woodland	Unit 3. Oak (<i>Quercus petraea</i>) forests rich in bryophytes and lichens
Blechno-Quercetum coryletosum	WN1 Oak-birch-holly woodland	A3 Oak woodland with hazel and ash	Unit 4. Oak (mostly <i>Quercus petraea</i>) forest with bluebell (<i>Hyacinthoides non-scripta</i>)
Corylo-Fraxinetum veronicetosum	WN2 Oak-ash-hazel woodland	B1 Oak-ash-hazel woodland on relatively deep soils	Unit 5. Pedunculate oak-ash forests with <i>Corylus avellana</i> , <i>Circaea lutetiana</i> , <i>Brachypodium sylvaticum</i> and <i>Veronica montana</i>
Corylo-Fraxinetum typicum	WN2 Oak-ash-hazel woodland	B1 Oak-ash-hazel woodland on relatively deep soils	Unit 5. Pedunculate oak-ash forests with <i>Corylus avellana</i> , <i>Circaea lutetiana</i> , <i>Brachypodium sylvaticum</i> and <i>Veronica montana</i>
Corylo-Fraxinetum neckeretosum	WN2 Oak-ash-hazel woodland	B2 Oak-ash-hazel woodland on shallow, often rocky soils over limestone	Unit 6. Hazel-ash forests on shallow calcareous soils, rich in bryophytes
Corylo-Fraxinetum neckeretosum <i>Taxus</i> facies	WN3 Yew woodland	B3 Yew woodland	Unit 6. Hazel-ash forests on shallow calcareous soils, rich in bryophytes
Corylo-Fraxinetum deschampsietosum	WN4 Wet pedunculate oak-ash woodland	C1 Wet pedunculate oak-ash woodland rich in species C2 Woodlands of floodplains subject to intermittent flooding	Unit 8. Lowland alluvial forests of <i>Quercus robur</i> , <i>Fraxinus excelsior</i> and <i>Salix</i> species
Salicetum albae	WN5 Riparian woodland	D Willow woodland alongside river channels (gallery or riparian woodland)	Unit 8. Lowland alluvial forests of <i>Quercus robur</i> , <i>Fraxinus excelsior</i> and <i>Salix</i> species
Osmundo-Salicetum	WN6 Wet willow-alder-ash woodland	E1 Willow-alder carr on fen peat	Unit 14. Degraded raised bog with a mosaic of birch forests, alder and ash-alder carr, fen and heath
<i>Alnus glutinosa</i> - <i>Carex paniculata</i> coenon	WN6 Wet willow-alder-ash woodland	E2 Alder carr with tussock sedge (<i>Carex paniculata</i>)	-
Carici remotae-Fraxinetum	WN6 Wet willow-alder-ash woodland	E3 Ash-alder-remote sedge woodland	Unit 9. Alder-oak-ash forests with <i>Salix cinerea</i> subsp. <i>oleifolia</i>
Vaccinio uliginosi-Betuletum	WN7 Bog woodland	F1 Dry birch woodland	Unit 14. Degraded raised bog with a mosaic of birch forests, alder and ash-alder carr, fen and heath
Salicetum auritae <i>Sphagnum palustre</i> - <i>Betula pubescens</i> coenon	WN7 Bog woodland	F2 Wet birch woodland with <i>Sphagnum</i>	Unit 14. Degraded raised bog with a mosaic of birch forests, alder and ash-alder carr, fen and heath

WN6 Wet willow-alder-ash woodland: These are wet woodlands of permanently waterlogged sites. They are usually dominated by some combination of *Salix cinerea*, *Alnus glutinosa* and *Fraxinus excelsior*. Included here are lakeside woods, woods on fen peat (carr) and woods on spring-fed or flushed sites. Field layer species include *Agrostis stolonifera*, *Galium palustre* and *Filipendula ulmaria*

WN7 Bog woodland: These are woods on ombrotrophic bogs, including cutover bogs and bog margins and hence are usually found on deep acidic peat. They are dominated by *Betula pubescens* with a field layer often comprising *Calluna vulgaris*, *Vaccinium myrtillus*, *Pteridium aquilinum*, *Molinia caerulea* and *Rubus fruticosus*.

WD1 (Mixed) broadleaved woodland: This is a modified woodland type with 0-25% conifers and 75-100% broadleaves which may contain native and / or non-native species.

WD2 Mixed broadleaved/conifer woodland: This is a modified woodland type where both conifer and broadleaved species have a minimum cover of 25%.

Cross (2005) revised the woodland section of the scheme of Fossitt (2000), adding a second tier of classification which largely corresponds with the subassociations listed by Kelly (2005). Cross (2006) proposed potential natural vegetation units for woodland in Ireland which may also be related to the previous schemes. The relationship between these various systems is presented in Table 1.1. However, Cross (2005) points out that in the absence of a detailed, national woodland survey such classifications must be regarded as preliminary.

1.4 Extent of Irish woodlands

There have been two recent estimates of the national extent of native woodland cover. The Forest Inventory Planning System 1998 (FIPS) is a GIS-based inventory of forest cover in Ireland which was used extensively in this project for site selection (see section 2.1). It was produced from aerial photographs and satellite imagery. According to FIPS, Ireland in 1995 had 571,234 ha of forested land with 82,321 ha of mixed woodland and broadleaf woodland not dominated by beech, representing 1.2% of the state (Fig. 1.1). The National Forest Inventory (NFI) extrapolated its estimates from a systematic field sampling of the whole country between 2004 and 2006 (Anon. 2007a) and estimated that 625,750 ha of Ireland is forested land. Of this forested area, 21.3% or 132,990 ha comprise native woodland, representing 1.9% of the state². The considerable difference between these estimates may be attributed to differences in minimum stand size, the criteria for determining if woodland is native, the identification of open areas within forests and the differentiation between scrub and mature woodland. However, this apparent increase may to some extent reflect genuine

² Note that unlike in the NFI, Scots pine (*Pinus sylvestris*) is regarded as non-native for the purposes of this survey. The figures presented here therefore differ slightly from those presented for native woodland in Anon. (2007a).

expansion of woodland, particularly birch woodland on degraded bogland. The density of native woodland differs considerably between counties, as shown in Figure 1.2 and Table 1.2. Whilst only 38% of non-native forested land is in public ownership, 60% of native woodlands are owned by private landowners according to the NFI (Anon. 2007a).

Figure 1.1 Extent in Ireland of (a) all forested land and (b) mixed and broadleaved woodland not dominated by beech. Data from FIPS (1998).

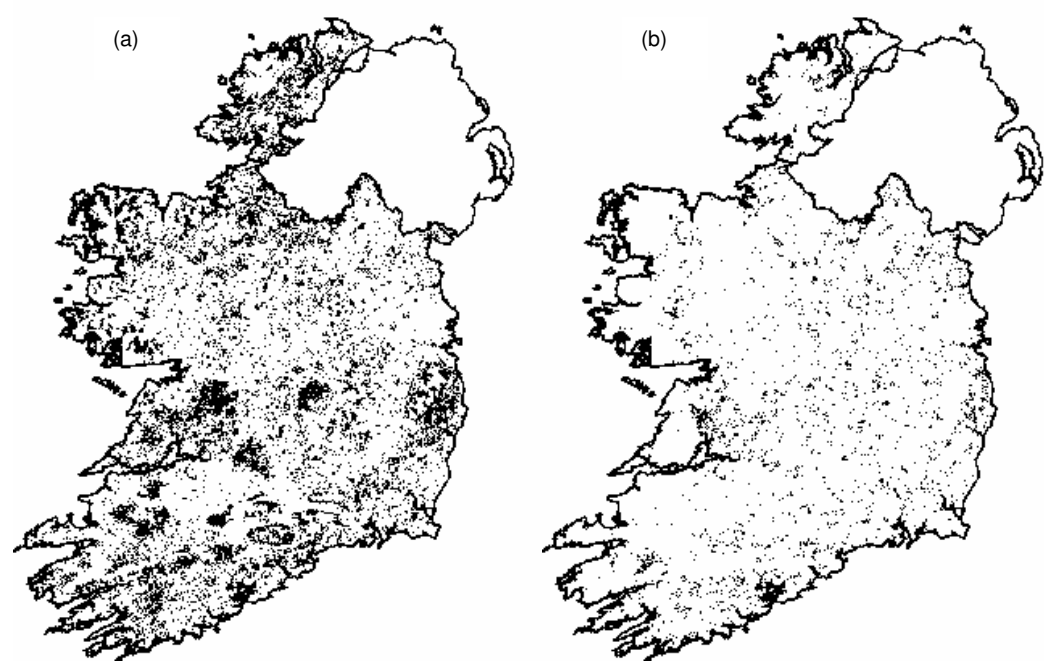


Figure 1.2 Area (dark bars, right axis) and density (pale bars, left axis) of native woodlands by county. Data from National Forest Inventory (Anon. 2007a)

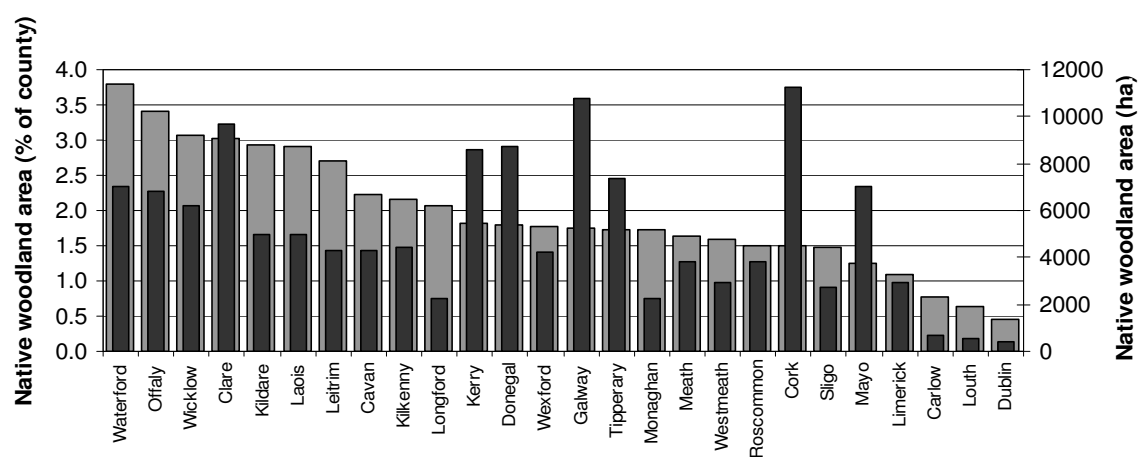


Table 1.2 Area and density of native woodland by county. Data from National Forest Inventory (Anon. 2007a) and FIPS 1998. ^a excluding Scots pine, ^b excluding beech.

County	NFI: Native woodland area (ha) ^a	NFI: Native woodland area (% of county) ^a	FIPS: Broadleaved & mixed area (ha) ^b	FIPS: Broadleaved & mixed area (% of county) ^b
Waterford	6990	3.80	3301	1.80
Offaly	6810	3.40	2950	1.47
Wicklow	6220	3.07	4883	2.41
Clare	9660	3.02	7071	2.21
Kildare	4970	2.93	2075	1.22
Laois	4990	2.90	2244	1.30
Leitrim	4310	2.71	1936	1.22
Cavan	4320	2.23	2872	1.48
Kilkenny	4430	2.15	2251	1.09
Longford	2260	2.07	1387	1.27
Kerry	8600	1.81	5799	1.22
Donegal	8750	1.80	4245	0.87
Wexford	4200	1.78	2512	1.06
Galway	10780	1.76	5107	0.83
Tipperary	7350	1.73	4432	1.04
Monaghan	2230	1.72	1828	1.41
Meath	3850	1.64	2061	0.88
Westmeath	2900	1.58	2379	1.29
Roscommon	3850	1.51	1745	0.68
Cork	11230	1.50	11121	1.49
Sligo	2720	1.48	1397	0.76
Mayo	7010	1.25	3572	0.64
Limerick	2920	1.09	2141	0.80
Carlow	690	0.77	836	0.93
Louth	520	0.63	1265	1.53
Dublin	430	0.46	916	0.99
<i>Total</i>	<i>132990</i>	<i>1.91</i>	<i>82321</i>	<i>1.23</i>

Not only is the native woodland resource in Ireland limited in extent, but it is also highly fragmented. Within FIPS the vast majority of contiguous units representing broadleaf woodland or mixed broadleaf / conifer woodland are less than 5 ha in size and only a very small proportion exceed 50 ha (Table 1.3). Fragmented woodland can support only smaller populations of species, which are vulnerable to extinction by stochastic events. Furthermore, within smaller sites a proportionately larger area is affected by edge effects and there is less core woodland habitat.

Table 1.3 Size of contiguous broadleaf or mixed units in FIPS 1998 greater than 1 ha in size.

Unit size (ha)	No. FIPS units	% of FIPS units
0.98-5.00	13695	78.1
5.01-10.00	2343	13.4
10.01-20.00	979	5.6
20.01-50.00	425	2.4
50.01-100.00	81	0.5
>100.00	19	0.1
<i>Total</i>	<i>17,542</i>	<i>100</i>

1.5 Threats to Irish woodlands

Native woodland in Ireland suffers from what may be deemed internal and external threats. The main contemporary internal, or ecological, threats are from inappropriate grazing and from invasive alien species, although in the past underplanting with conifer species was a widespread practice. Grazing pressure in woodlands comes from domestic stock, chiefly cattle and sheep, feral populations of goats and wild deer. Deer species in Ireland comprise red (*Cervus elaphus*), fallow (*Dama dama*) and sika (*Cervus nippon*) with muntjac (*Muntiacus reevesi*) a possible recent introduction. Fallow and sika deer are also introduced species, but certain populations of red deer are regarded as native. As deer lack any natural predators in Ireland, control of populations, typically through fencing or culling, is a major management issue. Heavy grazing pressure can reduce field layer diversity and inhibit regeneration of tree species through damage or removal of seedlings and saplings, eventually affecting stand structure and species composition. Undergrazing may also be a problem, however, as competitive species may dominate unchecked.

Invasive alien species in woodlands comprise non-native shrubs, trees and herbaceous plants. The most problematic shrub species include rhododendron (*Rhododendron ponticum* and hybrids), cherry laurel (*Prunus laurocerasus*), red osier dogwood (*Cornus sericea*) and snowberry (*Symphiocarpos albus*). These highly competitive species form dense thickets which outcompete native species. Rhododendron is a particular problem in the humid conditions of western Ireland where it grows vigorously on acid soils. It can only be eradicated through systematic control regimes. The main non-native tree species which pose a threat are beech (*Fagus sylvatica*) and sycamore (*Acer pseudoplatanus*), both of which have been widely planted in the past and freely regenerate in woodlands on well-drained mineral soils. Beech casts a heavy shade inhibiting the regeneration of native species whilst it itself is shade tolerant. Its foliage is unpalatable and produces a deep acidifying litter layer which alters the composition of the field layer. Invasive herbs include giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*), both of which can be problematic along watercourses.

The chief external threat to woodland is felling. Woodlands may be clearfelled as a result of road or housing development schemes, for agricultural improvement or replanting with commercial plantations. Woodlands on eskers and other mineral deposits are often threatened by the establishment or expansion of quarries, whilst wet woodland can be adversely affected by drainage schemes.

1.6 Conservation of Irish woodlands

Several frameworks exist in Ireland to protect the best examples of the native woodland resource from these threats. The level of protection varies considerably between these

frameworks. The highest level of protection is granted to sites contained within National Parks as these are owned and managed by the State. Statutory Nature Reserves are protected by Ministerial order under the Wildlife Act, 1976 and the Wildlife (Amendment) Act, 2000 and the majority of these are owned and managed by the State. However, many of these sites are still threatened, for example by overgrazing or rhododendron. Of the six National Parks in Ireland, three contain substantial areas of native woodland, those in Killarney, Glenveagh and the Wicklow Mountains. Of the network of 78 Statutory Nature Reserves, 33 sites have been deemed to contain woodland of conservation value.

The second level of protection is granted to woodlands which are part of the Natura 2000 European network. These include woodland sites which fall into areas designated as Special Protection Areas (SPAs) under the EU Birds Directive and sites which are candidates for designation as Special Areas of Conservation (cSACs). These latter sites, which may be in private or State ownership, are protected through the EU Habitats Directive, which was transposed into Irish law by the European Union (Natural Habitats) Regulations, 1997 as amended in 1998 and 2005. To qualify for designation, sites must contain habitats or species that are listed under Annex I or Annex II of the Habitats Directive and are thus of importance at a European level. Four Annex I woodland habitat types occur in Ireland:

- | | |
|------|---|
| 91A0 | Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles |
| 91D0 | * Bog woodland |
| 91E0 | * Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>
(Alno-padion, Alnion incanae, Salicion albae) |
| 91J0 | * <i>Taxus baccata</i> woods of the British Isles |
| | (* priority habitat) |

The third level of protection is granted to sites which have been proposed as Natural Heritage Areas (pNHAs) as provided for under the Wildlife (Amendment) Act, 2000. These are sites which have been identified as important on a national or regional basis. Many sites would have status as both pNHA and cSAC. Although no woodland sites have currently been given full statutory designation as NHAs, their proposed status is recognised by authorities within the planning process. However, many of these sites were originally identified on an *ad hoc* basis rather than as the result of a national survey with consistent criteria, therefore there may well be other woodlands of conservation importance which have not been designated.

There have been other recent initiatives aimed at conserving and expanding the native woodland resource in Ireland. The People's Millennium Forests project established a network of sixteen sites covering over 600 ha where existing native woodland has received funding for conservation management and where extensive woodland planting has occurred. The Native Woodland Scheme administered by the Forest Service is an ongoing grant-aided scheme providing funding for the creation of new woodland or the conservation of existing stands.

1.7 Aims of the project

1. To establish the area and character of native woodlands in Ireland.
2. To produce a national inventory of native woodland sites comprising a subjective sample representing the full range of woodland diversity in Ireland.
3. To produce a national classification system for native woodlands based objectively on data recorded in the field, to compare this system with existing schemes and make recommendations for improvement.
4. To evaluate the conservation value and threat status of all surveyed sites and highlight undesignated sites which may be worthy of protected status.
5. To examine the structure, regeneration status and timber resource of native woodlands in Ireland.
6. To produce monitoring guidelines for the ongoing assessment of Annex I woodland habitats.

1.8 Structure of the report

The National Survey of Native Woodlands (NSNW) was conducted in three phases. Fieldwork for the first phase occurred in 2003 in Cos. Carlow, Kilkenny, Laois, Wexford and the western half of Co. Offaly. This phase of work was reported in Higgins *et al.* (2004). Fieldwork for the second phase occurred in 2004 and 2005, when the counties surveyed were Cavan, Dublin, Kildare, Leitrim, Louth, Longford, Meath, Monaghan, Roscommon, Westmeath and Wicklow. This phase was reported in Perrin *et al.* (2006). The second phase report also covered the incorporation of data from 101 woodland sites from external sources, including the pilot study to the NSNW conducted in the eastern half of Co. Offaly (van der Sleesen & Poole 2002) and a survey of woodland in three SACs by Browne *et al.* (2000). The third and final phase of fieldwork took place in 2006 and 2007 in the remaining counties of Clare, Cork, Donegal, Galway, Kerry, Limerick, Mayo, Sligo, Tipperary and Waterford.

This final report covers all of the data accumulated during the five years of the project. It is presented in two volumes. Volume I contains the full field and analytical methodologies used, the conservation and threat assessments of each surveyed site and the Annex I monitoring guidelines. It also contains a technical overview of the results of the vegetation analysis, but the full woodland classification is presented as a standalone document in Volume II.

The report is accompanied by several digital packages. A GIS project in ArcView GIS format contains the following information: total forest cover and potentially native woodland cover derived from FIPS 1998, the location and classification of all relevés recorded during the survey, and digitized areas of woodland not identified by FIPS in which relevés were recorded. A Microsoft Access database contains all of the data recorded during the project with the exception of tree structural data and natural regeneration data which are provided in a Microsoft Excel file. A key to the species codes used in the database are also presented in Microsoft Excel format. Data is also presented in Turboveg format in two databases, one containing site records and one containing relevé data. Finally, a set of CDs contains a collection of relevé photographs.

Marsh fern (*Thelypteris palustris*)



Wood horsetail
(*Equisetum sylvaticum*)

Polypody (*Polypodium* sp.)



Filmy fern (*Hymenophyllum* sp.)

Woodland Ferns & Horsetails



Great horsetail (*Equisetum telmateia*)



Water horsetail
(*Equisetum fluviatile*)

CHAPTER 2: METHODS

2.1 Site selection

The primary data source for the site selection process was the Forest Inventory Planning System 1998 (FIPS). FIPS is a GIS database running in ArcView that has digitally mapped all forested areas (parcels) in Ireland (Gallagher *et al.* 2001). It was developed utilising a combination of satellite (Landsat Thematic Mapper) imagery taken between 1993 and 1997, and a series of ortho-rectified panchromatic aerial photographs taken in 1995 (Gallagher *et al.* 2001). To focus in on putative native woodland sites, a modification to FIPS was developed (Higgins *et al.* 2004). This comprised three main steps. Parcels labelled with non-relevant class categories (mainly *Conifer forest* or *Cleared*) were removed, leaving only parcels categorised as either *Broadleaf* or *Mixed forest*. For each of these class categories, contiguous parcels were joined using a conventional dissolve procedure. Finally, parcels falling below the minimum threshold for inclusion in this survey, 0.98 ha in area and 40 m in width, were removed.

From this modified version of FIPS a subset of sites was selected for field survey within each county. The number of sites selected for each county was based on the proportion of the total area of native woodland that was present in that county as detailed by FIPS. The targets for the three phases of the project were 240 sites, 550 sites and 500 sites respectively, giving an overall target of 1290 sites. Additional sites were selected to allow for sites which could not be surveyed due to problems such as owners denying access or non-native status.

In addition to this stratified sampling of the survey area, the criteria listed below were considered during site prioritisation to ensure that a broad range of woodlands were included in the survey:

- sites already designated for conservation, e.g. pNHAs and cSACs
- large blocks of woodland for which little or no data were currently available
- woodlands in largely unwooded landscapes
- older woodlands (those with extant blocks marked on the 1st edition Ordnance Survey maps of the 1830s and 1840s)
- sites with different ownership status (privately-owned, state-owned or owned by Coillte) and therefore potentially under different levels of threat
- sites that represented the geographical variation that existed in the study area, such as altitudinal range
- sites predicted to contain rare woodland types
- sites which occurred on different soil types
- sites recommended by BSBI recorders, NPWS staff and members of the public.

Planting information from the Coillte GIS database was used to supplement the selection process. Analysis of FIPS was also used to ensure there was a good geographical spread of woods within the study area. A number of non-FIPS sites were identified by manual inspection of year 2000 aerial photographs or in the field; this was to compensate for the degree of inaccuracy that is inherent in FIPS (Gallagher *et al.* 2001). All sites were checked on aerial photographs. It was apparent that some sites were unsuitable for survey and they were rejected at this stage. For each of the remaining selected sites a site pack was compiled which included a six inch map with an overlay from the FIPS or Coillte estate GIS (Fig. 2.1), a blank six inch map, aerial photographs (Fig. 2.2) and, where available, copies of notes from previous surveys.

Figure 2.1 Overlay of FIPS on six inch map for Ballykeefe Nature Reserve, Kilkenny. Area in red indicates broadleaved woodland.

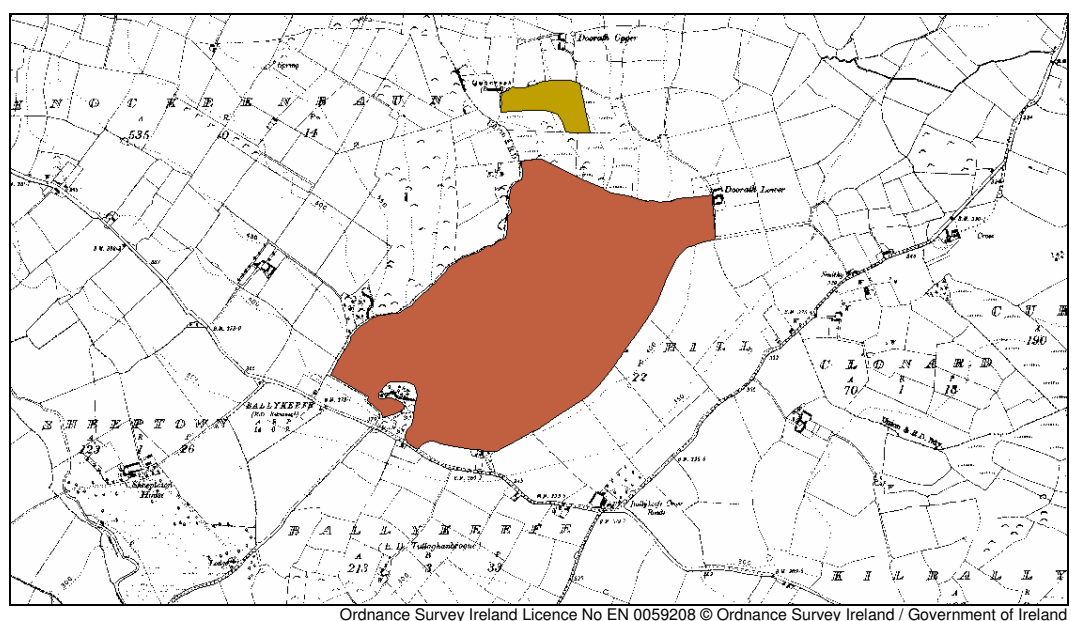


Figure 2.2 Aerial photograph for Ballykeefe Nature Reserve, Kilkenny.



A subjective approach to site selection was adopted, primarily due to the practical restraints of the project and the need to acquire a critical mass of data for several subsets of site types. For example, woodlands of lowland river islands are a very rare woodland type in Ireland and it was therefore desirable to include all of these within the survey to ensure that a reasonable level of information about this habitat type was obtained. It was also desirable to include data from as many of the relatively few Nature Reserves as possible so that comparisons could be made with non-designated sites. Given that a limited number of sites could be surveyed within the financial and time constraints of the project, a purely randomised approach based on FIPS parcels could well have omitted some or all of these sites. A similar case can be made for most of the criteria listed above. Furthermore, difficulties with obtaining access permission and the need to identify non-FIPS sites also made a randomisation approach to site selection unworkable.

2.2 General site survey

Fieldwork was conducted between April and September from 2003 to 2007. For each selected site, a decision was made upon arrival in the field on the validity of surveying it. Sites were required to be ≥ 1 ha in area, with a canopy ≥ 5 m in height (≥ 4 m in the case of wet woodlands), and with canopy cover of $\geq 30\%$. Sites were also required to be ≥ 40 m in width, with the exception of woodland along lakeshores or riverbanks where the minimum width was only 20 m. Also taken into account were the native component of the canopy, shrub and field layers and the importance of the site in context of the locale. A proportion of sites were therefore rejected at this stage as unsuitable. Specific field sheets were used for recording the survey data (Appendix 2). For each site surveyed the following data were recorded:

Site species list: A comprehensive list of vascular plants was recorded for each site. For tree and shrub species, presence/absence in each of the canopy, shrub and field layers was recorded. Where a species was observed only in man-modified habitats within the woodland site (e.g. on gravel tracks, car parks etc.) this was noted separately. Notable bryophytes were also recorded from the site in general. This bryophyte list was supplemented, particularly in the case of smaller and less obvious taxa, by the intensive sampling conducted within each relev . Identification in the laboratory was conducted as required. Nomenclature throughout the project followed Stace (1997) for vascular plants, Smith (2004) for mosses, Paton (1999) for liverworts and Dobson (2000) for lichens. As fieldwork was conducted over several months each year some seasonal variation in recording undoubtedly occurred, particularly for vernal species.

Site situation: The altitudinal range (in metres) for each site was recorded from the appropriate Discovery Map. The general slope (in degrees) for the woodland as a whole was recorded using a clinometer or estimated by eye. If there was not an obvious, single measurement relevant to the site as a whole, the situation was described in the site notes.

The aspect was recorded for the site as a whole using cardinal and subcardinal points. Flat sites (i.e. with no aspect) were recorded as '0'. Where a site had more than one aspect this was indicated on the field sheet. The topographical position (e.g. upper slope, lower slope, depression) occupied by the woodland was noted. In many cases the woodland site extended over several topographical positions. Where the woodland site was associated with a particular landscape feature, for example, in a valley or on a drumlin, this was also recorded.

Area: Site area (in hectares) was derived from FIPS. If during the field survey the woodland boundary was found to differ from that given by FIPS, the new boundary was marked on the six inch map or aerial photograph provided and a revised site area was calculated.

Internal features: The predominant soil moisture regime observed at the site was recorded. In addition, any hydrological features (e.g. streams, ditches and flushes) observed were noted. All evidence of management, both previous and current, in the wood was noted. This included planting, felling, amenity use and coppicing. The presence of historical features such as banks and ruined buildings was also recorded.

Surface cover: The surface cover of various strata was assessed to give a general indication of the structure of the woodland. The DAFOR scale (dominant, abundant, frequent, occasional, rare or absent) was used to assess cover of: rock and boulders; stones and gravel; bare soil; litter; bryophytes; herbs; low woody species. Only the actual wooded area was assessed; gravel-covered forest tracks / roads, car parks etc. were not included when assigning scores to the categories.

Vegetation communities: Vegetation communities were identified and classified using the system of Fossitt (2000). Major variations in the woodland vegetation were regarded as different communities even if they were encompassed by a single category using Fossitt (2000). The distribution of vegetation communities at each site was described in the site notes and marked on the six inch map, as were any changes to the site boundary. The proportion of the woodland area (survey area) allotted to each Fossitt category was noted.

Dead wood: The abundance of dead wood was recorded. An AFOR scale was used to record the frequency of each category of dead wood present, as it is assumed that dead wood would never be dominant at a site. The categories are defined as follows:

- | | |
|-----------------------|--|
| • Standing dead | Any tree, still rooted and seemingly entirely dead |
| • Standing damaged | Trees with major branches lost or crown damage |
| • Uprooted trees | With/without main stem still present |
| • Coarse woody debris | Non-leafy litter on the ground, diameter ≥5cm |
| • Fine woody debris | Non-leafy litter on the ground, diameter <5cm |
| • Snags/snapped | Trees which have broken part-way up main stem |

Site boundary: The type(s) of woodland boundary present were recorded and where a definite boundary, such as a wall or fence, is lacking, the transition from woodland to non-woodland habitats was described as either abrupt or diffuse.

Adjacent land cover: The surrounding land cover observed during the field survey was recorded for each site using categories defined by Fossitt (2000).

Grazing regime: The general grazing level at each site was assessed using the criteria listed in Table 2.1, which is modified from Mitchell & Kirby (1990). In addition, the types of grazer(s) present were deduced where possible from available evidence, such as animal tracks and droppings.

Table 2.1 Definition of grazing levels.

Evidence of grazing	Score
No grazing apparent.	0
Low: Regeneration abundant, shrub layer dense, no obvious browse line.	1
Moderate: Saplings localised, shrub layer patchy, field layer >30 cm in general.	2
High: Shrubs severely checked/lacking, ground vegetation generally <20 cm, tree regeneration rare/confined to safe sites, some bare soil/poaching visible.	3
Severe: Shrubs and regeneration almost completely absent. Definite browse line apparent, extensive bare soil present, ground flora confined to well bitten herbs grasses and bryophytes. Bark stripping at least occasional.	4

Natural regeneration: The principal canopy and sub-canopy species were scored for regeneration during the general site survey. DAFOR was used to score each of the following classes: seedling (sd) ≤25 cm tall, <7 cm dbh¹; sapling (sp) 25.1 cm to 200 cm tall, <7 cm dbh; pole (p) >200 cm tall and dbh <7 cm; mature (m) dbh ≥7 cm.

Invasive shrubs: Given the potential damaging effects of introduced species on the woodland ecosystem, the presence and status of invasive species were noted at each site. For *Rhododendron ponticum*, a species whose ecology in Ireland is relatively well known, the classification system of Cross (1981, 1982) was used (Table 2.2). The level of infestation of other invasive shrub species (e.g. *Prunus laurocerasus* and *Symphoricarpos albus*) was assessed using the criteria in Table 2.3.

Table 2.2 Classification of *Rhododendron* infestation (Cross 1981, 1982).

Description	Age (yrs)	Score
None present	N/A	1
Plants scattered, small, none having flowered	<12	2
Plants frequent, but not clumping. Some flowering, many seedlings	<24	3
Plants abundant forming clumps, many seedlings	<30	4
Plants forming dense thickets with very little ground flora below	>30	5

¹ dbh = Diameter at breast height. Breast height = 1.3 m

Table 2.3. Classification of invasive shrubs and herbs (excluding *Rhododendron*).

Level of Infestation	Score
None present	1
Plants scattered, not dominating any area	2
Plants dominating small areas, <20% woodland area	3
Plants dominating larger areas, 20-50% woodland area	4
Plants forming dense thickets over more than half the site area	5

The presence and abundance of potentially invasive canopy species, such as *Acer pseudoplatanus*, was recorded in the same way as for native canopy species.

Site summary: In addition to the specific data gathered and recorded on the various field sheets, a general description of each site was also made. Included within this description were:

- a summary of the physical nature of the site
- a list of the vegetation types present at the site including the main tree species
- a summary of the woodland structure including the regeneration of tree species
- rare/protected species with 10-figure grid reference.

2.3 Relevé survey

A 10 m x 10 m relevé was recorded for each of the vegetation communities identified within surveyed sites. Cover in vertical projection for all vascular and bryophyte species was recorded on the Domin scale (Kent & Coker 1992), as were other general parameters (Appendix 2). The presence of notable lichen species was recorded. For each relevé, a 10-figure grid reference was obtained using a GPS, and altitude, slope and aspect were recorded. Soil profiles were examined to a depth of 30 cm and classified using a simplified version of the Great Soil Groups (Gardiner & Radford 1980). Five soil samples were taken from each relevé (one from the centre and one from each quadrant) with an aluminium soil corer to a depth of 10 cm, and bulked. Soil pH was measured on field-fresh samples using a glass electrode and a 1:1 soil / water paste. Soil samples were then air-dried, crumbled and stored for subsequent laboratory analyses of loss on ignition and total phosphorus. Loss on ignition was determined by heating samples to 500 °C for 5 hours. To estimate total phosphorus, samples were digested using the Kjeldahl method and phosphorus determined using a molybdenum blue complex by spectrophotometer. All laboratory analyses were conducted by Coillte Laboratories, Newtownmountkennedy, Co. Wicklow.

Within each 10 m x 10 m relevé, tree size, abundance and stem quality were measured. The species and number of all stems with a dbh <7 cm were recorded in each relevé using five height classes – a simplified version of Raunkier's scheme (Raunkier 1934). Differentiation was made between stems which were basal shoots of mature trees and those which were not

(free regeneration). As the density of trees varies greatly between woodlands, the plot size for assessment of mature trees (dbh ≥ 7 cm) was increased as required beyond the relev   to allow a statistically representative sample of c. 30 trees to be recorded. Each mature stem was given a tree number, with multiple stems from the same tree sharing the same tree number. This permitted account to be made for typically multi-stemmed species, such as hazel, in subsequent density calculations. For each stem the following information was recorded:

- Species
- Dbh
- Crown position relative to other trees was recorded in four classes:
 - Dominant (trees emerging from the general canopy level)
 - Co-dominant (trees forming the canopy)
 - Intermediate (trees in the lower canopy receiving some direct light from above)
 - Suppressed (trees completely overtopped by the canopy)
- Height (to the nearest metre)

For trees of minimum merchantable size (dbh ≥ 40 cm; Joyce 1998) the following additional data were recorded:

- Estimated log length – total length, in metres, of the portion of the main stem that was suitable for veneer or sawtimber
- The presence of the following stem defects: forks, heavy branches, stem galls/cankers, kinks/bends, damaged stem/bark, lean $>10\%$, fluted/buttressed bole, excessive taper, shelf fungi or other stem disease, excessive ivy, epicormic shoots.

Within the relev  , the stratification of the woodland was sketched and photographed and the height and percentage cover for each stratum (canopy, sub-canopy and shrub layer) recorded. All photographs were stored digitally.

2.4 Incorporation of external data

The main dataset was supplemented by the incorporation of woodland survey data from several external sources. This consisted of the addition of a further 159 relev  s from 103 sites. All of these were recorded using Domin or percentage cover. In addition, environmental relev   data, structural data and general site data were incorporated where possible. Due to differences in the survey methods, this information, in some instances, was either not recorded or was recorded in a form that did not permit viable comparison. The following data sources were used:

1. Browne *et al.* (2000). *A survey of broadleaf woodlands in three SACs: Barrow-Nore, River Unshin and Lough Forbes*:

From this report, 71 relevés, recorded from 40 sites in Cos. Kilkenny, Longford, Sligo and Wexford in 2000, were incorporated. The relevés were recorded using Domin, but the cover of tree species was recorded separately in canopy, shrub and field layers, and the cover of the climbing species *Hedera helix* and *Lonicera periclymenum* was recorded separately as either ground cover or lianes. For each of these species the highest recorded Domin value was therefore used.

Structural data were recorded for the 10 m x 10 m relevés only. Diameter measurements were made for trees ≥ 10 cm dbh rather than ≥ 7 cm dbh as in the main survey. To compensate for this, each regenerating stem which had been tallied in a juvenile class (height ≥ 1.5 m and ≤ 10 cm dbh) was assigned a dbh of 7 cm. For some multi-stemmed trees, diameter of the stool rather than dbh of individual stems was recorded. Soil samples were taken and analysed as for the main survey and basic environmental and general site data were recorded. Site species lists were recorded.

2. van der Sleesen & Poole (2002). *Inventory of semi-natural woodlands in the eastern part of County Offaly: a pilot study for the national inventory of native woodlands*.

From this report, 70 relevés recorded from 55 sites in Co. Offaly in 2001 were incorporated. The relevés were recorded using a combination of Domin and percentage cover (which was converted to Domin). Structural data were recorded for the 10 m x 10 m relevés only but diameter measurements were made for all trees ≥ 7 cm dbh as in the main survey. Soil samples were taken and analysed as for the main survey, except that 20 cm deep cores were taken and a 1:2 soil / water paste was used. Basic environmental and general site data were recorded. Site species lists were recorded.

3. Fernandez *et al.* (2005). *Raised bog monitoring project 2004/2005*.

Five relevés recorded from five active bog sites in 2004 and 2005 were incorporated. The relevés were recorded using percentage cover, which was converted to Domin. Structural data were sometimes recorded for the 10 m x 10 m relevé only, but diameter measurements were made for all trees ≥ 7 cm dbh as in the main survey. Basic environmental and general site data were deduced from maps. Site species lists were recorded. No soil data were available.

4. van der Sleesen, unpublished data.

Four relevés recorded from two sites near Ballykilcavan, Co. Laois in 2001 were incorporated. The 10 m x 10 m relevés were recorded using Domin. Basic environmental and general site data were deduced from maps. No structural or soil data were available.

5. Kelly & Fuller, unpublished data.

Four relevés recorded from one site, Park Hill, near Abbeylax, Co. Laois in 1990 were incorporated. The 10 m x 10 m relevés were recorded using percentage cover, which was converted to Domin. No structural data were available but soil pH was recorded.

6. Smith, unpublished data.

Five relevés from St. John's Wood Nature Reserve, Co. Roscommon, recorded in 2007, were incorporated. Data were recorded as per the main survey with the exception of soil data, which were not recorded.

2.5 Identification of Annex I habitats and compilation of monitoring guidelines

Collected data and the resulting classification were used to retrospectively assign relevés Annex I habitat status where appropriate. The criteria for identification of these habitats were a combination of the descriptions in the *Interpretation manual of European Union habitats* (Anon. 2007b), discussion with NPWS staff and expert judgement.

91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Relevés with cumulative cover for *Quercus petraea*, *Quercus robur* and *Q. petraea* x *Q. robur* of greater than 25% were examined. Stands dominated by *Q. robur* were included as they occasionally occur naturally over an acidophilous field layer in Ireland. Relevés were given Annex I status where they were allocated to an essentially acidophilous oakwood grouping by the cluster analysis or where they contained three or more of the following species deemed indicative of this habitat in Ireland: *Blechnum spicant*, *Luzula sylvatica*, *Lonicera periclymenum*, *Oxalis acetosella*, *Polypodium vulgare* and *Vaccinium myrtillus*. Further examination of the data granted 91A0 status to a small number of additional sites.

91D0 * Bog woodland

Bog woodland in Ireland has been deemed to occur in four situations: intact high bog, acid fen, areas of degraded raised bog with a high water table, and oligotrophic flushed sites. Relevés were examined which had a cumulative cover of greater than 10% cover for *Sphagnum* spp. Following further examination of vegetation and soil data to ensure that environmental conditions were generally wet, oligotrophic and acidic, the majority of these relevés were given Annex I status.

91E0 * Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-padion, Alnion incanae, Salicion albae)

Relevés which were located within 20 m of a stream, river or lake according to GIS data, and / or which occurred on an alluvial soil according to the *EPA Soil and Subsoil Mapping Project* (Fealy 2006) were given Annex I status if they had been allocated to a wet woodland grouping by the cluster analysis. Of the remaining relevés, those which had been assigned a Fossitt

(2000) category that could correspond to habitat 91E0 (namely WN4, WN5, WN6, WD) were further examined where they occurred within 20 m of a natural water feature or alluvial soil. However, less than half of these were deemed suitable for 91E0 status. It is recognised that many larger rivers would affect the hydrology of woodlands at a distance greater than 20 m away from the river banks, but the data were not available to indicate where on the larger rivers more extensive flood plains would occur. Gallery woodland dominated by non-native or doubtfully native willows is considered to correspond to habitat type 91E0 in Ireland.

91J0 **Taxus baccata* woods of the British Isles

Only five relevés were recorded with high cover of *Taxus baccata*. All occurred on outcropping limestone in apparently natural communities and all were given Annex I status.

Monitoring guidelines were produced for each of these Annex I habitats using the collected data with reference to the following documents. Monitoring of conservation status is an obligation arising from Article II of the Habitats Directive for all habitats listed in Annex I of the Directive. The guidelines are presented in a technical addendum at the back of this volume.

- *Draft field methodology to assess the conservation status of dune habitats* (Anon. 2007c)
- *Common standards monitoring guidance for woodland habitats* (JNCC 2004)
- *The Irish red data book 1: Vascular plants* (Curtis & McGough 1988)
- Conservation Status Assessment Reports on Annex I habitats in Ireland from 2007
- *Interpretation manual of European Union habitats* (Anon. 2007b)
- Natura 2000 standard form explanatory notes.

2.6 Conservation and threat assessment

Conservation of habitats is often best achieved on a site-by-site basis, with specific management plans based on the individual characteristics of a given habitat at a particular site (e.g. management, history, rarity). However, it is also useful to be able to evaluate sites in the context of others, and to make general comparisons regarding their status. In the longer term, this is also important for monitoring individual sites, so that the effects of any management, conservation-orientated or otherwise, may be objectively assessed. To this end, the site survey procedure collected data on a number of factors that are intrinsic parts of the woodland ecosystem, and which may be used to help to evaluate woodland condition. Separate assessments were made for conservation value and internal threats. Whilst external threats, such as clearance for development or agriculture, are undoubtedly important factors, it was beyond the scope of this survey to quantify them.

The conservation value of each site was calculated using the scheme presented in Table 2.4. This is a modification of the scheme presented by Martin *et al.* (2005) and Perrin *et al.* (2006b). A similar approach has been used previously by van der Sleen & Poole (2002) and by the working group on biodiversity assessment in forests (Neville 2002). In addition, the

approaches taken by Ratcliffe (1977), Kirby (1988) and Cross (1990) were considered when developing this scheme.

The scheme places emphasis on the naturalness of sites, with weighting of scores tending towards features which are generally regarded as more natural woodland aspects, such as high native species diversity, occurrence of natural regeneration and high structural diversity. The term saplings refers here to the number of freely regenerating stems, >2 m tall and with a dbh <7 cm, recorded in each relevé. Horizontal diversity refers to the standard deviation of stem dbh at each relevé. Native status was assessed by calculating the percentage of total basal area at each relevé contributed by native species. Notable species are listed in Table 2.5; these are rare species typically found in woodland, or species which are indicative of long-established woodland. This list is based largely on that presented by van der Sleen & Poole (2002). Among the other criteria, the area of woodland, the number of native woodland habitat types and the occurrence of Annex I woodland habitats permit high scoring as these are also important factors. Points were given for the occurrence of historical man-made features such as old banks, walls and ruined buildings. Native woodland habitat types and adjacent semi-natural habitats are as defined by Fossitt (2000).

Scores were calculated as percentages of the maximum possible score. This permitted the assessment of sites which could not be scored for some criteria due to lack of data. For criteria dependent on relevé data, the highest value was used where two or more relevés were recorded at a site.

Quartiles were used to determine the scoring divisions for vascular plant diversity (score increases by quartile) and bryophyte diversity (lowest and highest scores for first and fourth quartiles respectively; intermediate score for the interquartile range). For area, sites which were very small (<2 ha) or very large (>50 ha) were given the lowest and highest scores respectively. Quartiles were then used to score the remaining sites which fell between these two sizes.

The assessment of threats to each site was based on the criteria detailed in Table 2.6. The following species constituted invasive species: *Rhododendron ponticum*, *Prunus laurocerasus*, *Symphoricarpos albus*, *Fallopia japonica*, *Cotoneaster* spp., *Cornus sericea*, *Clematis vitalba*, *Leycesteria formosa*, *Impatiens glandulifera* and *Heracleum mantegazzianum*. Low-level infestation denotes sites where the highest invasive score recorded was 2, whilst high-level infestation denotes sites where the highest invasive score recorded was 3-5. Saplings are here defined as the number of freely regenerating stems, >2 m tall and <7 cm dbh, recorded in each relevé. Damaging activities consisted of recent native felling, recent non-native conifer planting, recent non-native broadleaf planting, dumping and adjacent quarrying. The non-native canopy criterion refers to the general site survey. Abundance of standing dead or damaged trees was included in the threat scoring system to reflect deterioration in woodland quality due to unseen or unknown causes.

Table 2.4. Criteria used in the calculation of the conservation score of each site. See text for explanation of criteria.

Criteria	Scoring	Max.
Vascular plant diversity	1 = ≤50 species 2 = 51-65 species 3 = 66-80 species 4 = >80 species	4
Bryophyte diversity	0 = 0 species 1 = <12 species 2 = 12-24 species 3 = >24 species	3
Free regeneration of native species	0 = no saplings 1 = 1-4 saplings 2 = ≥5 saplings	2
Horizontal diversity	0 = σ of <7 cm 1 = σ of 7-14 cm 2 = σ of >14 cm	2
% native basal area	0 = ≤50% 1 = 50.1-75% 2 = 75.1-90% 3 = 90.1-100%	3
Annex I woodland habitats	0 = no Annex I woodland habitat 1 = 1 Annex I woodland habitat 2 = ≥2 Annex I woodland habitats	2
Notable species	0 = 0 species 1 = 1 species 2 = 2 species 3 = ≥3 species	3
Area	0 = <2 ha 1 = 2-3.9 ha 2 = 4-6.9 ha 3 = 7-13 ha 4 = 13.1-50 ha 5 = ≥50 ha	5
Diversity of native woodland habitats	1 = 1 habitat 2 = 2 habitats 3 = ≥3 habitats	3
Presence in the 1840s	0 = no woodland indicated in 1840s 1 = some woodland indicated in 1840s	1
Adjacent semi-natural habitats	0 = no adjacent semi-natural habitats 1 = ≥1 adjacent semi-natural habitats	1
Natural hydrological features	0 = no natural hydrological features 1 = ≥1 natural hydrological features	1
Petrifying springs with tufa formation	0 = no petrifying springs 1 = petrifying spring recorded	1
Dead wood	0 = coarse woody debris, standing dead, standing damaged and snags/snapped all recorded as rare or occasional and uprooted root plates recorded as rare, frequent or abundant. 1 = ≥1 of coarse woody debris, standing dead, standing damaged or snags/snapped recorded as frequent or abundant or uprooted root plate recorded as occasional	1
Man-made features and woodland management	0 = no notable man-made features or coppice/pollard recorded 1 = ≥1 man-made features or coppice/pollard recorded	1
<i>Maximum Score</i>		33

Table 2.5 Notable species used as part of the conservation assessment.

Vascular species	
<i>Anemone nemorosa</i>	<i>Milium effusum</i>
<i>Arbutus unedo</i>	<i>Monotropa hypopitys</i>
<i>Bromus racemosus</i>	<i>Neottia nidus-avis</i>
<i>Cardamine amara</i>	<i>Orobancha hederæ</i>
<i>Campanula trachelium</i>	<i>Phegopteris connectilis</i>
<i>Carex depauperata</i>	<i>Prunus padus</i>
<i>Carex strigosa</i>	<i>Pyrola media</i>
<i>Cephalanthera longifolia</i>	<i>Pyrola minor</i>
<i>Frangula alnus</i>	<i>Pyrola rotundifolium</i>
<i>Galium odoratum</i>	<i>Rhamnus cathartica</i>
<i>Gymnocarpium dryopteris</i>	<i>Sorbus devoniensis</i>
<i>Hordelymus europæus</i>	<i>Sorbus hibernica</i>
<i>Hypericum hirsutum</i>	<i>Stachys officinalis</i>
<i>Lamiastrum galeobdolon</i> ssp. <i>montanum</i>	<i>Trichomanes speciosum</i>
<i>Melica uniflora</i>	<i>Viola hirta</i>
Lichen species	
<i>Dimerella lutea</i>	<i>Lobaria</i> spp.
<i>Peltigera horizontalis</i>	<i>Sticta</i> spp.

For some of the sites incorporated from external sources, it was not possible to produce a threat score due to lack of data. Conservation and threat scores were not combined to produce one overall score. Combining scores can lead to misinterpretation when comparing sites, as for example a medium quality site with no threats could achieve the same score as a high quality site with many threats.

Table 2.6. Criteria used in the calculation of the threat score of each site. See text for explanation of criteria.

Criteria	Scoring	Max
Invasive species	0 = none recorded 1 = low level infestation 2 = high level infestation	2
Grazing	0 = low/moderate grazing 1 = no grazing 2 = high grazing 3 = severe grazing	3
Free regeneration of non-native species	0 = no saplings 1 = 1-4 saplings 2 = ≥5 saplings	2
Damaging activities	0 = no damaging activities 1 = 1 damaging activity 2 = 2 damaging activities 3 = ≥3 damaging activities	3
Non-native canopy	0 = no mature non-native species. recorded as abundant or dominant 1 = ≥1 mature non-native species recorded as abundant or dominant	1
Standing dead/damaged	0 = neither standing dead nor standing damaged recorded as abundant 1 = standing dead or standing damaged recorded as abundant	1
<i>Maximum Score</i>		<i>12</i>

2.7 Vegetation analysis

A suite of complementary statistical techniques were used to analyse the dataset. Analysis was conducted using PC-ORD 4 (MjM Software, Oregon) with the aim of defining an objective classification. Domin scores were converted to percentage cover using the method of Currall (1987) prior to analysis, as mean values cannot be calculated directly from a non-linear scale. Only records which had been identified to species level were included in the analysis, as records at the genus level (e.g. *Carex* sp.) may be amalgams of species with markedly different ecological preferences and therefore meaningless. Due to known identification and taxonomic problems the following species were combined: *Viola riviniana* and *Viola reichenbachiana*, *Ulotia crista* and *Ulotia bruchii*, *Sorbus hibernica* and *Sorbus aria*, *Agrostis canina* and *Agrostis vinealis*, *Sphagnum fallax*, *Sphagnum angustifolium* and *Sphagnum recurvum*. Following preliminary analysis, *Quercus petraea* x *Q. robur* records were combined with those of *Q. petraea*, as this species has been shown to be more variable in leaf morphology than *Q. robur* (Kelleher *et al.* 2004). Outlier analysis was used to identify any relevant samples suitable for exclusion.

The main methods used to produce the classification were:

Hierarchical, polythetic, agglomerative cluster analysis: This procedure was used for grouping the data into vegetation types. From a data matrix of n samples x p species, an $n \times n$ distance matrix is calculated by measuring the dissimilarity (or similarity) between each pair of samples. The most similar samples, which are selected using a predetermined criterion of minimum distance (linkage method), are merged into a group and their attributes are combined. The procedure is repeated $n - 1$ times until the samples have been merged (clustered) into two groups, with the results being structured as a dendrogram (McCune & Grace 2002). Quantitative Sørensen (Bray-Curtis) was selected as the distance measure, as it has been shown to be one of the most effective measures for ecological community analysis, being less prone to exaggerating the influence of outliers and retaining greater sensitivity with heterogeneous datasets (McCune & Grace 2002). Flexible beta was used as the linkage method with $\beta = -0.25$ (Lance & Williams 1967). This option is compatible with Sørensen distance and is space-conserving, i.e. properties in theoretical space defined by the original dissimilarity matrix are preserved as groups form during the cluster procedure. Space-distorting strategies can lead to undesirable effects such as high levels of chaining, the sequential addition of single items to existing groups (Legendre & Legendre 1998; McCune & Grace 2002).

Hierarchical clustering was chosen over two other popular classification methods: TWINSpan (Two Way Indicator Species Analysis) and K-means clustering. Serious weaknesses in the TWINSpan method have previously been highlighted, not least its poor performance with heterogeneous datasets containing more than one important gradient and the loss of information from quantitative data inherent in the 'pseudospecies' concept (Belbin &

McDonald 1993; Legendre & Legendre 1998). The lack of dimensionality in dendrograms resulting from hierarchical clustering is, conversely, an advantage when dealing with heterogeneous datasets (McCune & Grace 2002). A more valid alternative is K-means clustering, a non-hierarchical cluster technique. The K-means method is not suitable for directly clustering most ecological datasets, however, as it employs the Euclidean distance measure (Legendre & Legendre 1998).

Indicator Species Analysis (ISA): This method of Dufrene & Legendre (1997) was used to identify species that differentiated between clusters of samples. ISA produces percentage indicator values (IndVals) for species and works on the concept that, for a predetermined grouping of samples, an ideal indicator species will be found exclusively within one group and will be found in all the samples in that group at maximum abundance. IndVals are thus a simple combination of measures of relative abundance between groups and relative frequency within groups. At any given level of clustering, species are assigned to the group for which their IndVal is maximal. Dufrene & Legendre (1997) concluded that ISA was more sensitive at identifying indicator species than TWINSpan.

Multi-response permutation procedure (MRPP): This method was employed to test for significant differences between the groupings determined by the hierarchical clustering. This is essentially a non-parametric multivariate test and thus avoids the normality requirements of parametric multivariate tests such as discriminant analysis (McCune & Grace 2002). As it is statistically inappropriate to test for differences between groups using the same variables that define them, MRPP was run on a matrix of five environmental variables: pH, total P, % organic content, slope and altitude. In addition to a *p*-value, MRPP produces a statistic *A* which describes chance-corrected within-group heterogeneity. *A* = 1 when all samples within groups are identical, *A* = 0 when heterogeneity within groups equals expectation by chance and *A* < 0 when within-group heterogeneity is less than that expected by chance. Euclidean distance was used on a rank transformed matrix following relativization of columns to standard deviates (McCune & Grace 2002).

Ellenberg indicator values: Ellenberg (1979, 1988, Ellenberg *et al.* 1991) assigned scores to over 2000 vascular plants indicating how these species “behaved” in respect to a range of environmental factors. By calculating mean values of these scores for vegetation samples it is possible to use them as proxy measures of environmental factors. As the original scores were based on field sites in central Europe, Hill *et al.* (1999) recalibrated the scores for British conditions with respect to five environmental factors: light, reaction (pH), nitrogen (a measure of soil fertility), moisture and salinity. Using this recalibration, for each of the relevés the mean score for each of these factors was calculated, weighting scores by cover abundance. The scores were then used to calculate means for each grouping produced by the cluster analysis.

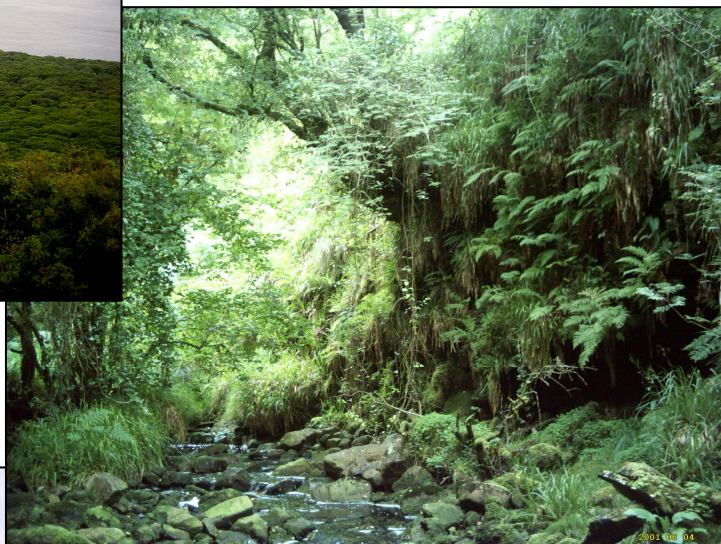
Non-metric multidimensional scaling (NMS): This was used to illustrate the relationships between relevés and between relevés and environmental variables. This iterative ordination technique is particularly well suited for analysis of ecological community data as it works well with non-normal datasets, allows the use of non-Euclidean distance measures, and does not assume that species have linear or unimodal responses to environmental gradients (McCune & Grace 2002). Being based on ranked distances, NMS is less prone to distortion due to outliers. For ecological analysis, NMS has been recommended over the more widely used Detrended Correspondence Analysis (DCA) method which has been seriously criticised by several authors (e.g. Minchin 1987; Legendre & Legendre 1998; McCune & Grace 2002). Species occurring in fewer than 3 relevés were omitted to reduce noise, hence the ordination was run on a matrix of 1667 relevés and 458 species. The analysis was run in PC-ORD and was used with the following parameters: 2 axes, no step down in dimensionality, maximum number of iterations = 200, 20 runs with real data, stability criterion = 0.00001, last 15 iterations used to assess stability. The use of the Quantitative Sørensen (Bray-Curtis) distance measure permits ready comparison of the results with those of the hierarchical cluster analysis.

Hazel woodland and scrub,
Ballynahown, Co. Clare

Wooded Landscapes



Wooded hillside, Tomies Wood,
Co. Kerry



Wooded ravine, Glassalt, Co. Leitrim



Riparian woodland,
Grove Island, Co. Meath



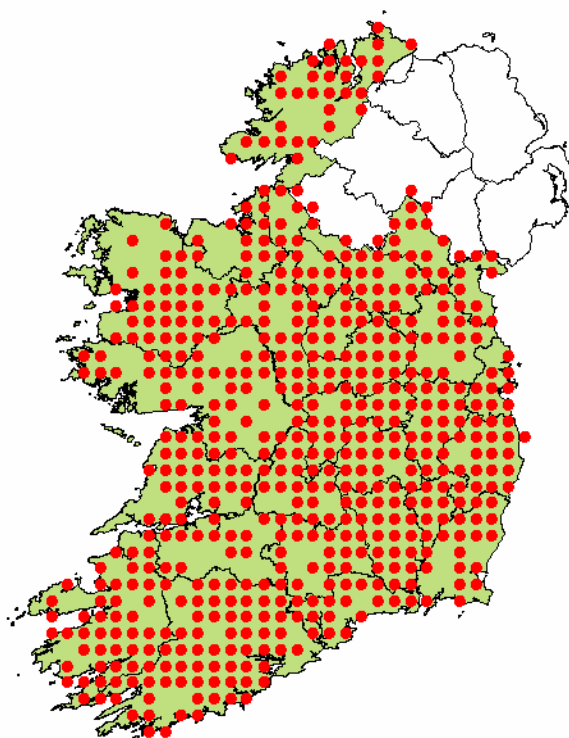
Upland valley woodland,
Glenveagh, Co. Donegal

CHAPTER 3: RESULTS

3.1 Coverage of the survey

In total 1,217 sites were surveyed and 1,508 relevés were recorded during the NSNW. A further 103 site with 159 relevés were added from external sources, resulting in a final dataset of 1,320 sites and 1,667 relevés. Sites were surveyed in 563 different hectads (10 km x 10 km squares), representing 66% of the hectads which cover the country (Fig. 3.1). In the east of the country, hectads where sites were not recorded generally represent areas of intensive agriculture in which no suitable woodland habitat was present. In the west of the country, these hectads also represent areas of blanket bog or small sections of coastline.

Figure 3.1 Coverage of the survey on hectad (10 km x10 km square) basis.



The number of sites surveyed in each county varied approximately in proportion to the size of the county (Table 3.1). The exception to this is Offaly, where a high density of sites was recorded during the pilot study (van der Sleen & Poole 2002). The highest proportions of relevés which were allocated to an Annex I habitat category occurred in Kerry, Wexford, Wicklow and Waterford. These are all areas in which habitat 91A0 (Old sessile oakwoods with *Blechnum* and *Ilex* in the British Isles) is common. The poorest counties with respect to Annex I habitats were Louth, Offaly, Meath, Westmeath and Roscommon.

Table 3.1 Number of sites surveyed, number of relevés recorded and number of Annex I habitat relevés by county.

County	No. of sites surveyed	No. of relevés	No. of Annex I relevés	County	No. of sites surveyed	No. of relevés	No. of Annex I relevés
Carlow	28	34	16 (47%)	Longford	47	64	12 (19%)
Cavan	69	82	24 (29%)	Louth	26	30	2 (6%)
Clare	64	80	29 (36%)	Mayo	40	51	17 (33%)
Cork	105	126	62 (49%)	Meath	48	61	7 (11%)
Donegal	40	60	21 (35%)	Monaghan	43	51	9 (18%)
Dublin	22	24	4 (17%)	Offaly	94	113	10 (9%)
Galway	55	85	26 (31%)	Roscommon	46	54	7 (13%)
Kerry	63	82	49 (60%)	Sligo	31	44	17 (39%)
Kildare	46	54	8 (14%)	Tipperary	46	65	24 (37%)
Kilkenny	58	79	23 (29%)	Waterford	35	49	27 (55%)
Laois	45	60	11 (18%)	Westmeath	62	72	9 (12%)
Leitrim	42	46	14 (30%)	Wexford	55	67	40 (60%)
Limerick	22	35	16 (46%)	Wicklow	88	99	55 (56%)

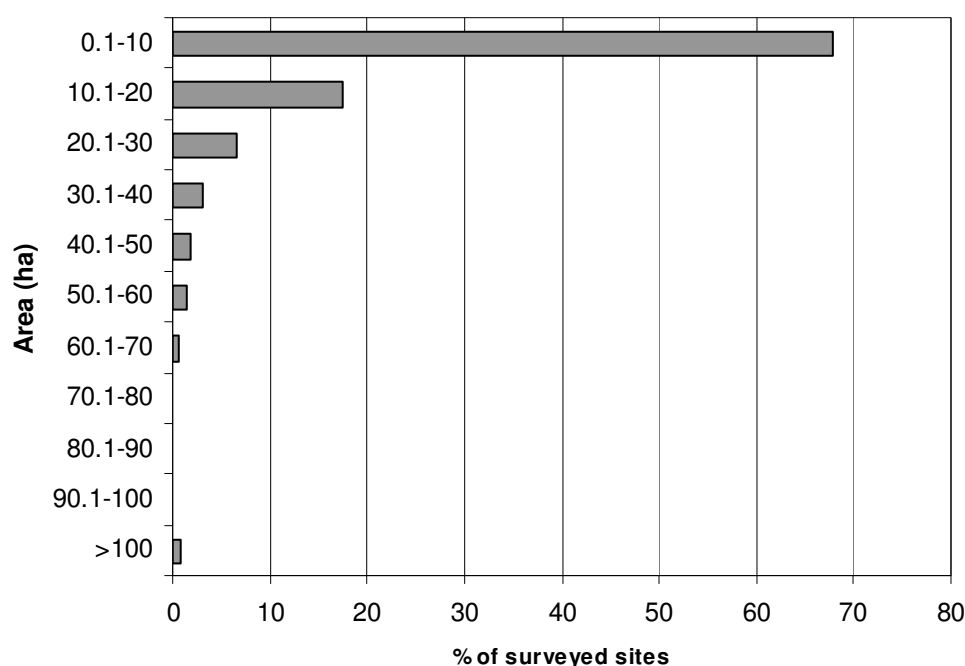
3.2 Area

Data on woodland area were available for all 1,320 surveyed sites. Area was primarily derived from FIPS but the area of many sites was re-evaluated following field survey when it became apparent that part of the targeted site was unsuitable. Sites not corresponding to FIPS polygons (non-FIPS sites) and extensions to FIPS sites where relevés were recorded were digitised manually and the area recalculated.

The extent of woodland is evidently of key importance to the conservation value of a site as larger sites are likely to harbour more species, larger populations and a greater range of woodland vegetation types. In addition, as size increases, the perimeter : area ratio tends to decrease and so does the relative influence of edge effects, resulting in a greater proportion of internal woodland environment.

The majority of surveyed woodlands were small or very small in extent, with 50% of sites being 6 ha or less. Despite prioritisation of larger areas of woodland for field survey, over two-thirds (67.8%) of sites were 10 ha or less and only 3.3% of sites surveyed were 50 ha or more, with just ten sites over 100 ha (Fig. 3.2). This reflects the highly fragmented nature of the Irish woodland resource as reported in section 1.4. The largest sites surveyed include Dromore Nature Reserve, Galway (Site 1500; 330 ha), Garryland Wood, also in Galway (Site 1594; 178 ha) and Glengarriff Wood, Cork (Site 1316; 140 ha).

Figure 3.2 Area of surveyed sites.



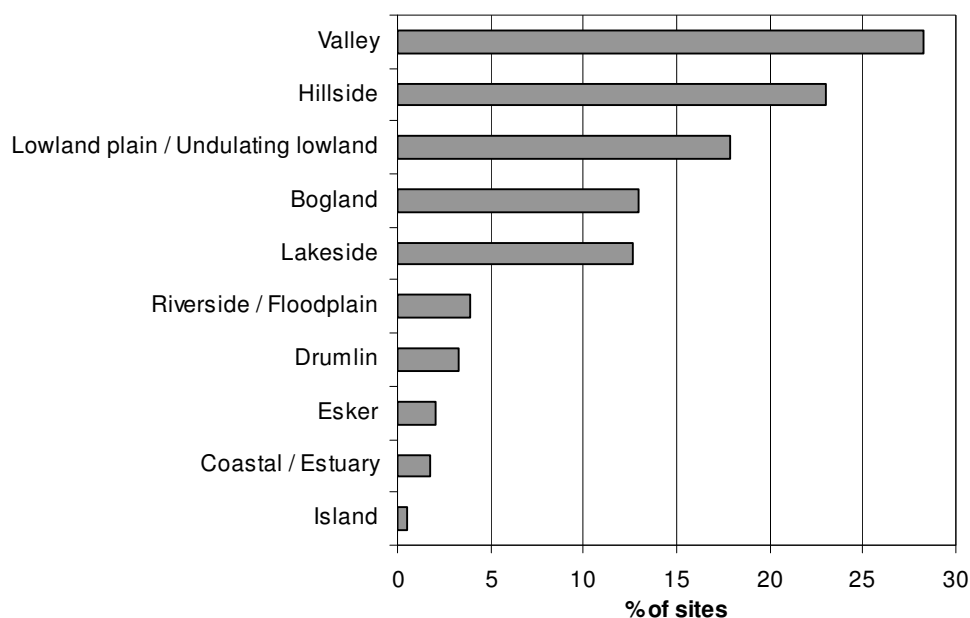
3.3 Landscape features

Data on the landscape features associated with the woodlands were collected for the 1,217 sites surveyed during the main survey. The frequency of the most commonly recorded features is shown in Fig. 3.3.

Valley was the most frequently recorded feature (28.3% of sites). A large number of the sites surveyed occurred along streams and rivers, or on valleysides. Woodland has probably been allowed to persist or establish in these situations as slope or poor drainage makes the sites less attractive for other land uses. Valley woodlands made up over half of the woodlands surveyed in Waterford, Wicklow, Wexford, Dublin, Carlow, Kerry and Cork. Hillside (23.0%) was the second most recorded feature, associated with over half of the sites surveyed in Donegal and Mayo. Bog (13.0%) was also a common feature, particularly in the Midlands. Here, many woods are associated with the expanses of degraded raised bog which have been machine-cut for peat, although woodland was also recorded on smaller, formerly hand-cut sites. Woodland on bogs occurred most frequently in Offaly, Roscommon, Longford, Westmeath and Kildare, accounting for over one-third of woodlands surveyed in these counties. It should be noted that several additional woodlands surveyed in pilot studies were also associated with bogs, particularly in Offaly. Woodlands associated with lakeshores (12.7%) were generally either long, narrow strips on well-drained but frequently flooded ground, or more extensive sites on wetter soils. Lakeshores were a feature found regularly through Cavan, Leitrim, Sligo, Monaghan, Clare, Longford, Mayo and northern Roscommon: at least a quarter of all woodland sites in these counties were associated with lakes. Only

3.3% of sites were associated with drumlins, predominantly in Monaghan, Cavan, Roscommon and Leitrim, and were recorded in association with over a quarter of Monaghan woodlands. Woodlands primarily associated with flat river floodplains and lowland riversides were relatively rare, accounting for only 3.9% of sites, although over 15% of Kildare woodlands surveyed occurred into this context. Eskers were a rare feature, occurring in association with only 2.1% of sites, mostly in Offaly and Westmeath. Only six sites on islands were surveyed, representing 0.5% of sites. These were river islands in the Boyne, Suir, Blackwater and Shannon. A small number of other landscape features were also recorded, mostly where woodlands were associated with coastlines and limestone pavement areas. At 17.8 % of sites no particular landscape features were recorded. These woodlands typically occurred in the context of plains or undulating lowlands.

Figure 3.3 Frequency of landscape features associated with surveyed sites.



3.4 Adjacent land cover

Data on adjacent land cover were recorded using the categories of Fossitt (2000) for the 1,217 sites surveyed during the main survey. The presence of semi-natural habitats next to a woodland can increase the value of that site as it forms part of a larger mosaic of semi-natural vegetation. It can also indicate that the woodland has the possibility of natural expansion by colonising the adjacent land. The presence of man-made habitats, such as tilled or built land or quarries, may indicate that the site is under some degree of external threat. A summary of the data on adjacent land use is shown in Table 3.2. Note that linear habitats such as hedgerows and treelines are not included as adjacent land cover.

The most notable feature of the data is that the majority of woodlands were associated with man-made habitats, with improved grassland (71.5% of sites), built land (including roads; 50.5%) and highly modified / non-native woodland (43.5%) being the most frequently

recorded adjacent land cover. This reflects the high number of woodlands which occur within the agricultural landscape, but also the number of sites which occur in conjunction with commercial forestry plantations or as part of large demesnes. The high proportion of sites adjacent to built land represents urban locations and woods next to roads, farmyards and rural dwellings.

Table 3.2 Frequency of recording of adjacent land use classes using the categories of Fossitt (2000).

Habitat groups	Habitat subgroups	Code	% sites
Freshwater	Lakes and ponds	FL	17.9
	Watercourses	FW	28.2
	Springs	FP	0.2
	Swamps	FS	3.7
Grassland and marsh	Improved grassland	GA	71.5
	Semi-natural grassland	GS	35.7
	Freshwater marsh	GM	2.2
Heath and dense bracken	Heath	HH	5.8
	Dense bracken	HD	5.2
Peatlands	Bogs	PB	12.1
	Fens and flushes	PF	3.0
Woodland and scrub	Semi-natural woodland	WN	2.5
	Highly modified/non-native woodland	WD	43.5
	Scrub/transitional woodland	WS	21.0
Exposed rock and disturbed ground	Exposed rock	ER	2.5
	Disturbed ground	ED	4.1
Cultivated and built land	Cultivated land	BC	8.2
	Built land	BL	50.5
Coastland	Sea cliffs and islets	CS	0.3
	Brackish waters	CW	1.0
	Salt marshes	CM	0.3
	Shingle and gravel banks	CB	0.3
	Sand dune systems	CD	0.4
	Coastal constructions	CC	0.1
Littoral (intertidal)	Littoral sediment	LS	0.9
Marine water body		MW	0.6

The semi-natural habitats encountered most often were semi-natural grassland (35.7%), watercourses (28.2%), scrub (21.0%), lakes and ponds (17.9%) and bogs (12.1%). The frequency of scrub is a good indicator that woodland is expanding at a number of the sites surveyed. These include many of the sites bordered by bogs, the vast majority of which are birch-dominated woodlands, themselves developing on degraded raised bog. There are several points of note within the less frequently recorded habitats. Swamps tended to be tall beds of *Phragmites australis* which formed a transition between wet woodlands on lakeshores and the open water. Exposed rock and disturbed ground were categories recorded for a number of woodlands next to abandoned and active quarries, which were particularly frequent features of esker woodlands; exposed rock was also recorded for woodlands occurring on or adjacent to limestone pavement, as was the case for some woodlands in Clare and Galway.

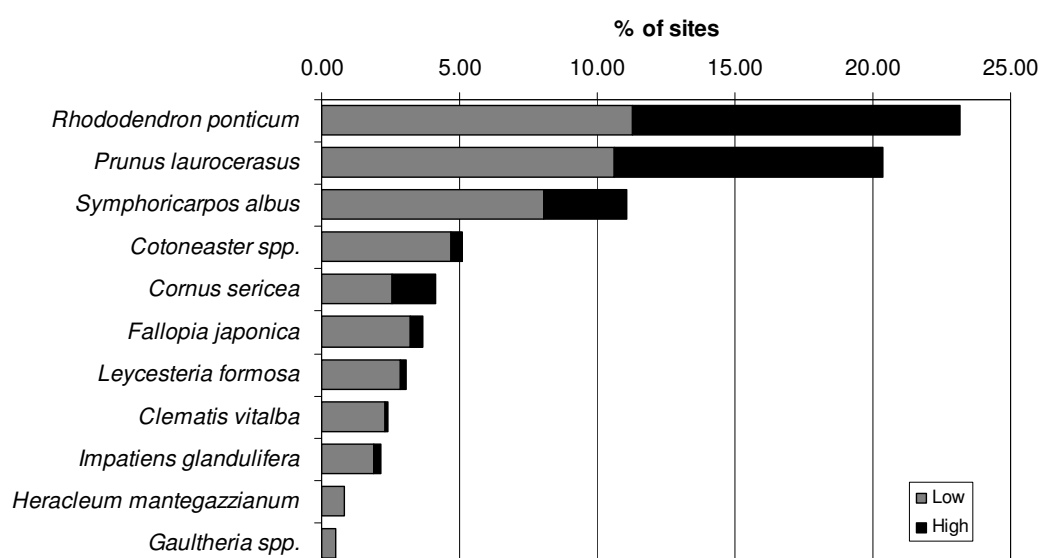
A number of woods were coastal and were recorded next to a range of coastal features, including sand dunes, e.g. Courtown Dunes, Wexford, river estuaries, such as Cornamucklagh in Louth on the Newry River, or more rugged coastline, as at Courtmacsherry, Cork.

3.5 Invasive species

Data on invasive alien species were recorded from the 1,217 sites of the main survey. Invasive species, particularly invasive shrubs and trees, are a major threat to native woodland. They are characterised by being highly competitive, typically quick growing and highly fecund, and are often unpalatable to browsing animals.

Invasive shrubs can dominate the understorey, outcompeting native herbs and impacting on the natural regeneration of native trees. Invasive levels were recorded for nine invasive shrub species (Fig. 3.4). Of these, *Rhododendron ponticum*, *Prunus laurocerasus* and *Symphoricarpos albus* were the most frequently encountered. *R. ponticum* occurred at 23.2% of sites and *P. laurocerasus* at 20.4% of sites. Furthermore, in around half of these sites, infestation levels were classified as high. In contrast, *S. albus*, in common with the five less frequently recorded shrubs, occurred at low infestation levels at the majority of sites where it was recorded. Many of the sites where invasive shrubs were recorded were woodlands associated with demesnes and estates.

Figure 3.4 Frequency of invasive shrub species. Low indicates an invasive level of 2. High indicates an invasive level of 3, 4 or 5.



Invasive levels were also recorded for two herbaceous invasive species: *Heracleum mantegazzianum* and *Impatiens glandulifera* (Fig. 3.4). These species pose more of a problem in wet woodlands, particularly where rivers act as a dispersal agent for their seeds. In common with the shrub species described above, they outcompete native vegetation and may

adversely affect the natural ecology of the woodland if allowed to spread. *H. mantegazzianum* was recorded in a small number of sites (0.8%), while *I. glandulifera* was slightly more frequent (2.1%).

Data recorded on the DAFOR scale on the two most frequent invasive broadleaf trees, *Acer pseudoplatanus* and *Fagus sylvatica*, and the most frequent conifer, *Picea sitchensis*, are shown in Table 3.3. *Acer pseudoplatanus* occurred at 73.2 % of the 1,217 sites used in this analysis and *Fagus sylvatica* at a comparable 69.0% of sites. Mature sycamore trees were at least frequent at 11.7% of sites, with juveniles at least frequent at 5.7%, saplings at least frequent at 7.2% and seedlings at least frequent at 7.0% of sites. Mature *Fagus sylvatica* trees were, however, more common, being at least frequent at 19.3% of sites, whilst beech juveniles were at least frequent at 6.1% of sites. Seedlings and saplings of beech were much less common than those of sycamore. *Picea sitchensis* was recorded from 24.7% of sites but mature trees were at least frequent at only 1.4% of sites and frequent regeneration was rarely recorded.

Table 3.3 Frequency in percent of selected invasive tree species at sites and within four size classes. D = Dominant, A = Abundant, F= Frequent.

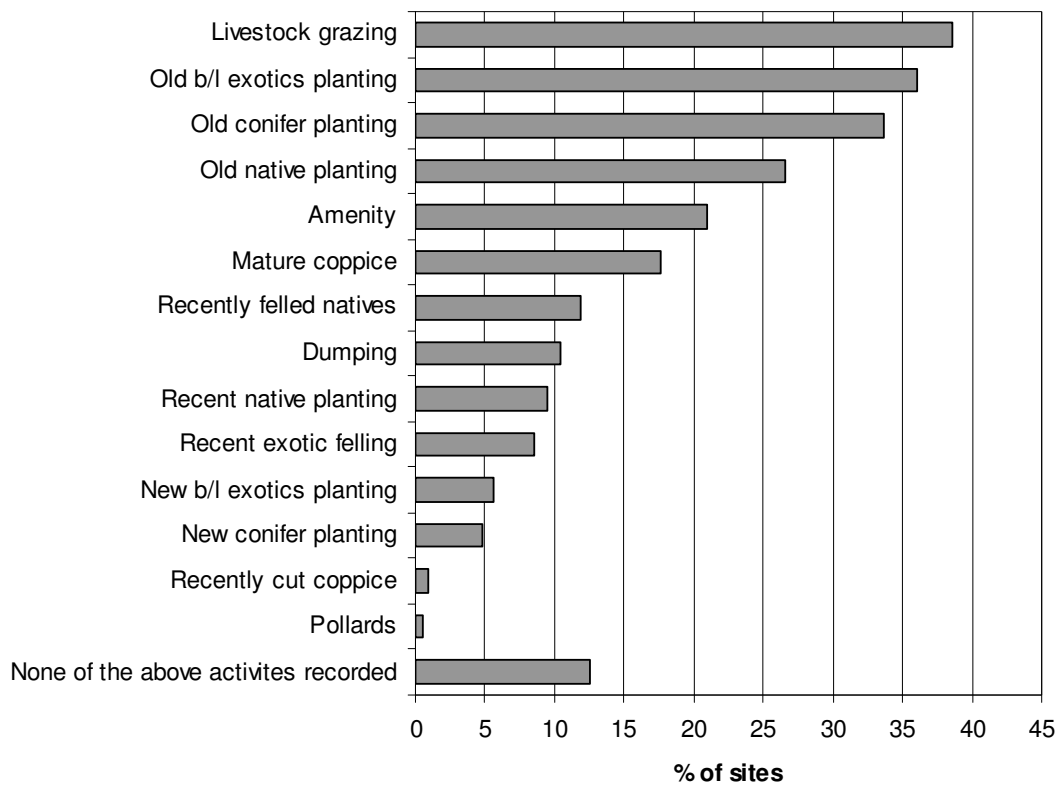
Species	Sites	Seedlings			Saplings			Juveniles			Mature		
		D	A	F	D	A	F	D	A	F	D	A	F
<i>Acer pseudoplatanus</i>	73.2	0.1	2.1	5.8	0.1	1.2	5.9	0.1	0.7	4.9	0.5	3.0	8.2
<i>Fagus sylvatica</i>	69.0	0.0	0.4	2.2	0.0	0.2	2.8	0.1	0.9	5.1	1.9	5.0	12.4
<i>Picea sitchensis</i>	24.7	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.2	1.2

In interpreting these results it is important to bear in mind that potential survey sites or partial areas of sites may have been rejected due to high occurrence of one or more invasive species, where it was viewed that infestation, possibly in conjunction with other criteria, had sufficiently impacted on the native status of the site. These figures *must* therefore be viewed as minimal estimates of the occurrence of these species in Irish woodland.

3.6 Management and land use

Data on management and land use of woodland were collected for the 1,217 sites in the main survey. Some of the management types recorded are related to the history of the sites and can be informative about how the woodlands have developed. Other management types are indicative of potential internal threats that sites may face. The most frequently recorded management and land use types are shown in Fig. 3.5.

Figure 3.5 Frequency of observed management and land use at surveyed sites.



The modified nature of much of the woodland within the survey area is evidenced by the high frequency of old planting of non-native broadleaves (36.1% of sites) and conifers (33.6%). Sites with non-native broadleaves were often demesne woodlands, either parts of existing estates or remnants of old estates which have often now been converted into forestry plantations. For historical reasons such woodlands tend to be more frequent in the eastern half of the country, and this is borne out by the fact that old exotic broadleaf planting was recorded in over half of woodlands surveyed in Dublin, Wexford and Wicklow, but in less than a fifth of woods surveyed in Donegal, Roscommon, Leitrim and Cavan. Old non-native conifer planting included old commercial underplanting, failed conifer plantations, and ornamental plantings. Kildare registered the highest proportion of sites with old conifer planting (54%), followed by Dublin (53%) and Wexford (50%).

Use for amenity was a common occurrence (21.0%). The most frequent activities were shooting, fishing, walking or horse-riding, and these sometimes involved some active management such as the creation and maintenance of paths. Some form of amenity use was recorded in over one-third of woodlands surveyed in Meath, Waterford, Louth and Wicklow.

Mature coppice was observed at 17.7% of sites, particularly in Laois, Mayo, Offaly and Cork, and this was almost always hazel coppice. There are difficulties, however, in differentiating between stands which are genuinely the results of old coppice regimes and those which may be the result of single felling events or where multi-stemmed trees have naturally developed.

Coppice with standards of oaks is known from at least one large estate in Wicklow (Carey 2004), where coppicing was recorded from 15.9% of sites. Recently-cut coppice was encountered far less frequently (less than 1%).

Recent native planting (9.4%) was recorded more frequently than either recently planted non-native broadleaves (8.5%) or non-native conifers (4.8%). This trend was particularly evident in counties with a history of planting, such as Wicklow, Kildare and Dublin. However, this was exceeded by the incidence of recent native felling overall (11.9%). This was highest in Donegal, where 22.5% of sites were affected, and was often associated with construction. In a number of counties, including Offaly, Kilkenny, Westmeath and Tipperary, there were several instances of felling (both legal and illegal) of ash trees for the production of hurleys.

Dumping, generally of domestic rubbish or farm machinery, was noted at 10.4% of sites, highest in Waterford and Kerry, where over one-third of sites were affected. This activity is almost certainly under-recorded, however, as dumping was often highly localised within a site, occurring at one or two points, typically along roads. Dumping of this nature was particularly prevalent in woodlands on degraded bog or adjoining roads.

Livestock grazing is included here as a management practice. Grazing livestock recorded included cattle, sheep, horses, pigs, boar and donkeys. Some wild or feral grazers were also recorded (mainly rabbits/hares, deer and goats); these would not be classed as part of the management regime of the woodland *per se*, but rather as part of the natural ecology of the woodland. Grazing (including both livestock and non-livestock grazers) is discussed in more detail below. Livestock grazing was noted at 38.6% of all sites, the most frequent management type recorded. Cattle were by far the most frequent farm grazers, accounting for 67.6% of all recorded livestock grazing. Sheep were the next most common, present at just under 23.8% of livestock-grazed sites. Horses were recorded at 8.0% of these sites, with pigs, boar and donkeys accounting for the remaining 0.6% of sites.

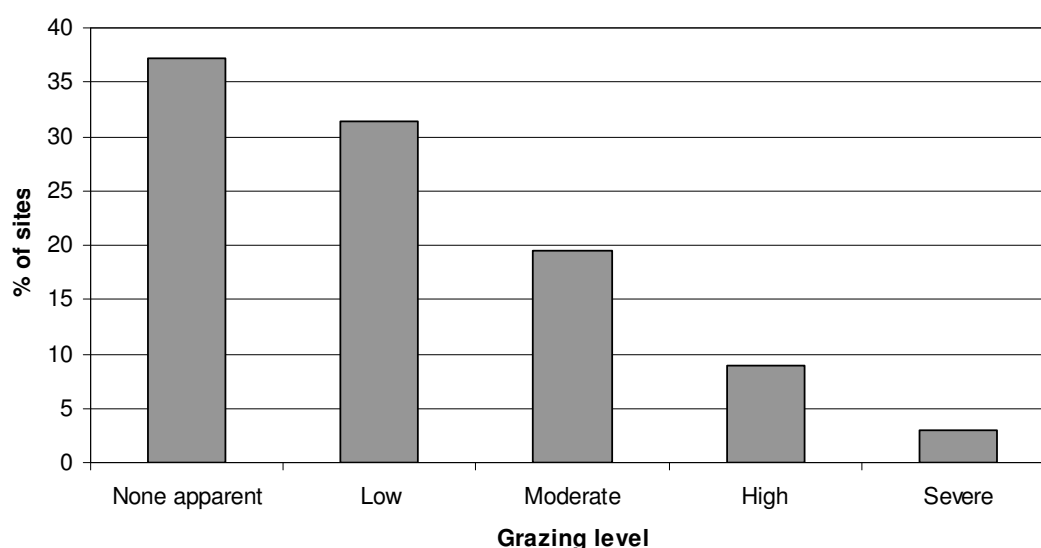
None of the above activities were recorded at 12.5% of sites; over two-thirds of these essentially unmanaged sites were not present on the 1st edition Ordnance Survey maps of the 1840s. Many of these younger sites have probably never been managed as woodland. A large number of the sites with no apparent management were wet woodlands, woodlands which developed relatively recently on degraded bogs, or woodlands on steep slopes, all of which could be difficult to access, dangerous for grazing animals or have little economic value. Some form of management was recorded on the vast majority (93.6%) of the older woods surveyed (i.e. present on 1840s maps). In fact, there are probably few or no old woodlands in the country that have not been managed at some time, but many of the management practices have since been abandoned and the sites have reverted to a condition where such practices are no longer clearly evident.

3.7 Grazing

Data on grazing levels were recorded for the 1,217 sites in the main survey. Grazing is a natural feature of woodland ecosystems, but a high level of grazing can be detrimental as it precludes natural regeneration and impacts on the diversity and species composition of the field layer. Conversely, a complete lack of grazing can also be undesirable as strong competitors, such as *Rubus fruticosus*, can dominate the field layer, again adversely affecting diversity and species composition.

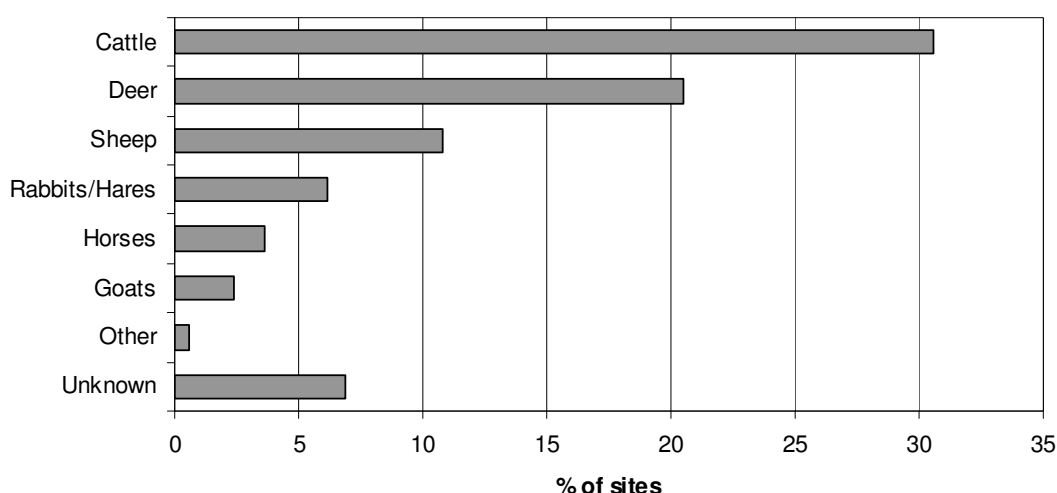
Overall, heavy grazing was not a feature of the woods surveyed. High and severe grazing levels were infrequently encountered, occurring at only 9.0% and 3.0% of sites respectively (Fig. 3.6), while at 37.1% of sites no grazing was apparent. These woods may have been ungrazed because they were enclosed by walls, ditches or fences, on particularly wet and boggy ground, or in arable or urban landscapes.

Figure 3.6 Frequency of different grazing levels.



Cattle (30.6% of sites) and deer (20.5%) were the most frequently identified grazers (Fig. 3.7). Cattle, unsurprisingly, tended to be recorded at more lowland sites (median maximum altitude 80m; median slope 7°), while deer overall tended to favour higher altitudes and steeper slopes compared to cattle (median maximum altitude 100m; median slope 10°). This is reflected in the county distribution of the two types of grazing: Wicklow had by far the highest percentage of sites grazed by deer, at over 59.1%, followed by Kerry at 43.5%. Both of these counties are mountainous and have well-established deer populations. By contrast, less than 10% of sites in Cavan, Sligo, Wexford, Leitrim and Westmeath were grazed by deer. Cattle grazing, however, occurred at only 20.5% of Wicklow sites and was highest in Clare (54.7%). Sheep, rabbits, horses, goats, and hares were recorded much less frequently than either deer or cattle. At a number of the sites, although grazing was apparent the animals responsible could not be identified.

Figure 3.7 Frequency of evidence of grazing by different animals.



3.8 Hydrological and man-made features

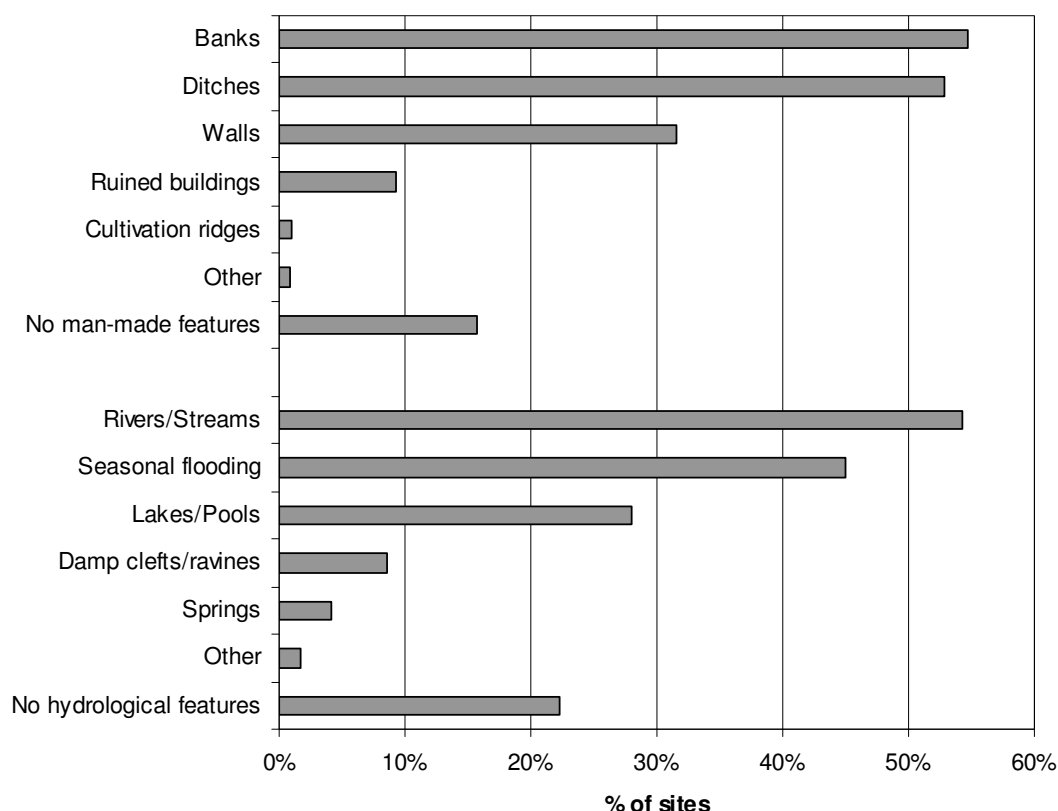
Data on hydrological and internal man-made features were available for the 1,217 sites of the main survey. Even if they are not extensive enough to effectively change the overall vegetation type, features such as pools, streams and areas of seasonal flooding can add ecological interest to a site by providing localised niches for plant and animal species which favour wetter conditions. Similarly, the presence of banks and walls increases the range of niches and substrates available, and can also constitute an important historical aspect of a site as they may form townland boundaries or may be old woodland boundaries.

Natural hydrological features were recorded in or associated with the majority of sites surveyed (77.6%). The most commonly recorded hydrological features (Fig. 3.8) were rivers or streams (54.2% of sites); these were recorded in over three-quarters of sites in Waterford, Kerry and Cork. Seasonal flooding was the next most frequent feature (44.9%), most prevalent in Limerick (77% of sites in the county). Lakes and pools were the third most common hydrological feature, at 28.0% of sites overall, and at more than half of all sites in Cavan, Monaghan, Roscommon and Longford. Damp clefts/ravines and springs were rare features, occurring at only 8.6% and 4.1% of sites respectively. At seven sites the priority Annex I habitat 7220 *Petrifying springs with tufa formation (Cratoneurion) was recorded. A small number of other features were also recorded, with the most common of these being flushes and waterfalls. A total of 22.4% of sites (ranging from 3% of sites in Donegal to 54% in Offaly) lacked any notable hydrological feature.

In terms of man-made features of potential historical interest, banks and ditches were the most common feature of the woodlands surveyed, each being found at over half the sites, sometimes in conjunction with one another. Over 70% of sites in Waterford, Kilkenny and Wexford had banks, while a similar frequency was recorded for ditches in Louth, Offaly and Tipperary. In contrast, banks were present in less than a quarter of sites in Dublin, Donegal and Galway, and in less than a third of sites in Cork, Kerry and Waterford. Walls were found

at 31.6% of sites, particularly in Mayo, Cork, Donegal, Waterford and Clare (over half of all sites in these counties), while ruined buildings and cultivation ridges were both rare features, occurring in 9.3% and 1.0% of sites respectively. A small number of other notable features were also recorded, including canals, ring forts, a limekiln and an old well. Man-made features were absent from 15.8% of sites.

Figure 3.8 Frequency of hydrological and man-made features.



3.9 Stand structure

A total of 47,416 trees were recorded during the main survey comprising 67,893 adult (dbh \geq 7 cm) stems and 73 taxa. A summary of the data is given in Table 3.4. *Betula pubescens* (21.4% of trees), *Fraxinus excelsior* (18.5%) and *Corylus avellana* (10.1%) were the most frequently recorded species. Of the non-native trees recorded, *Fagus sylvatica* and *Acer pseudoplatanus* were the most frequent, but constituted only 3.1% and 2.1% of all trees respectively. The rarest native species included *Populus nigra*, *Populus tremula*, *Prunus padus*, *Salix pentandra* and *Salix purpurea*, each recorded three or less times. In terms of basal area *Quercus petraea* (18.3% of the total), *Quercus robur* (14.1%), *Fraxinus excelsior* (15.4%) and *Betula pubescens* (13.6%) were the most important species. The multi-stemmed nature of *Corylus avellana* meant that it contributed a proportionately large number of stems (16.8%).

For the twelve most common species, mean heights are shown in Fig. 3.9 with crown position data shown in Fig. 3.10 and tree size frequency curves in Fig. 3.11. *Quercus robur* and *Quercus petraea* were the tallest trees on average, with mean heights of 17.0 m and 15.1 m respectively. Over 80% of these species occurred as dominants or co-dominants and rarely occurred as suppressed trees. The frequency curves for these species indicate that a substantial proportion of the metapopulation of oaks are large trees, with just over 17% of stems of both species being greater than 42 cm dbh. The shallowness of both curves suggests that there is a low turnover rate of adult trees. *Fraxinus excelsior* tended to be smaller than *Quercus* spp. overall, both in terms of height (mean = 14.3 m) and dbh. The majority of ash trees were again co-dominants but a slightly greater proportion than the oaks were intermediates. The sharp decline in the frequency curve suggests that many trees are outcompeted whilst still small in stature.

Fagus sylvatica and *Acer pseudoplatanus* display similar frequency curves to *Fraxinus excelsior*, although they were more frequent in the larger size classes. Their mean heights, however, were lower, being 14.2 m and 13.3 m respectively. Whilst most frequent as dominants or co-dominants, they were also common as intermediates, demonstrating the high competitive ability of the non-natives as they are able to persist in the understorey.

The frequency curve for *Alnus glutinosa* is noteworthy in that there are fewer records in the smallest size class than in the next smallest size class. This is indicative of there being inadequate recruitment to the adult size class to replace the current population. Alder trees were 12.2 m in height on average and most frequently occurred as co-dominants.

Betula pubescens measured 12.2 m on average and the majority of stems occurred as co-dominants, primarily due to the high frequency of birchwoods surveyed. The majority of *Salix cinerea* stems were also co-dominants despite the low height of the trees (mean = 8.6 m), due to the typically low canopy of wet woodlands. Many of the sprawling grey willow specimens measured had large limbs, with 3.9% of all *Salix cinerea* stems being greater than 42 cm dbh. *Sorbus aucuparia* occurred as an intermediate almost equally as frequently as a co-dominant, with a mean height of 9.7 m. Specimens seldom had a dbh greater than 27 cm.

The smallest species were *Corylus avellana*, *Crataegus monogyna* and *Ilex aquifolium*; all measured less than 8 m on average. *Crataegus monogyna* and *Ilex aquifolium* occurred most often as intermediates typically with small dbh sizes, although occasionally larger specimens (dbh of 23-42 cm) were recorded. *Corylus avellana* was also abundant as an intermediate but more frequently occurred as a co-dominant in low canopy hazelwoods. The vast majority of hazel stems (86.0%) measured only 7-12 cm in diameter.

Figure 3.9 Mean height of adult tree stems for common species

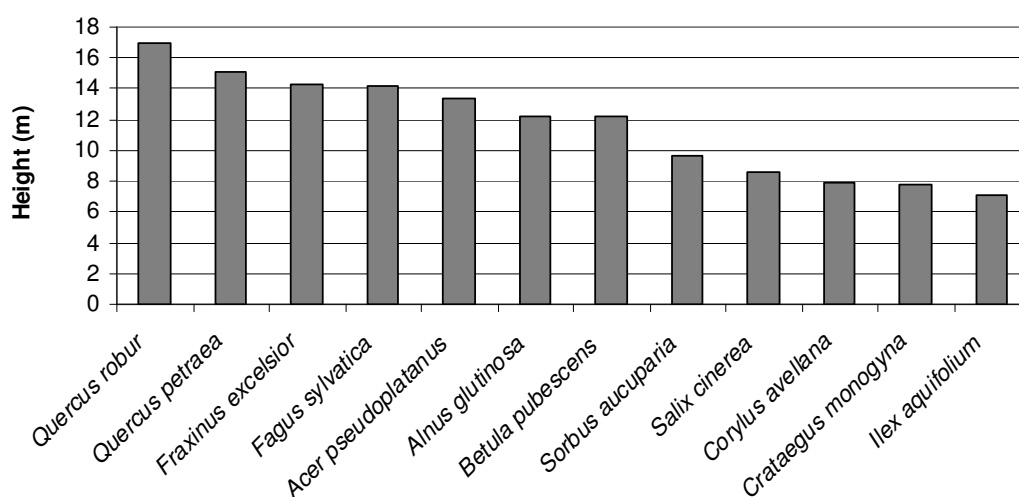


Figure 3.10 Proportion of stems with different crown position for common species

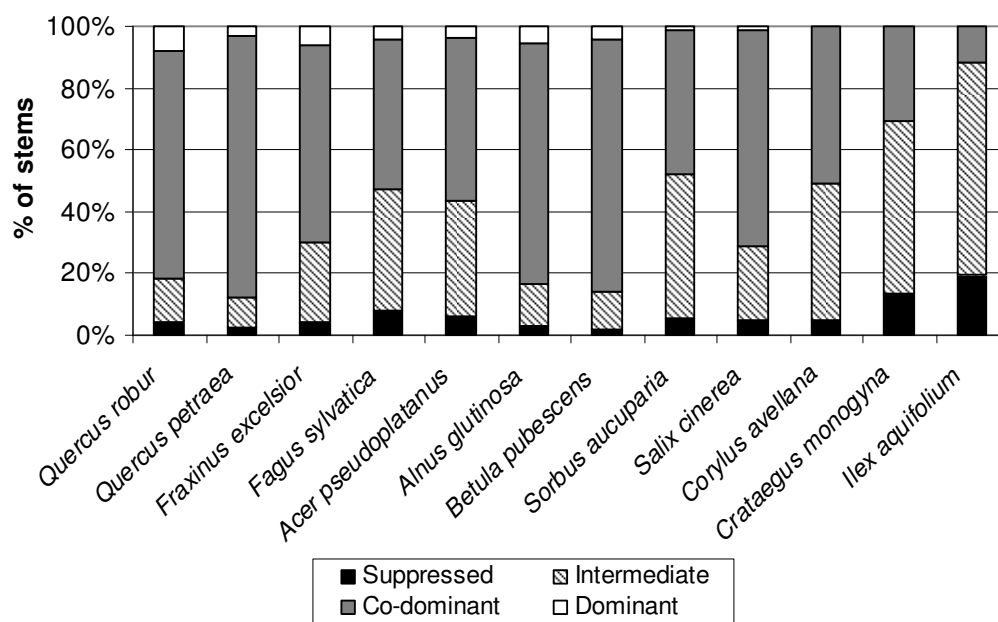
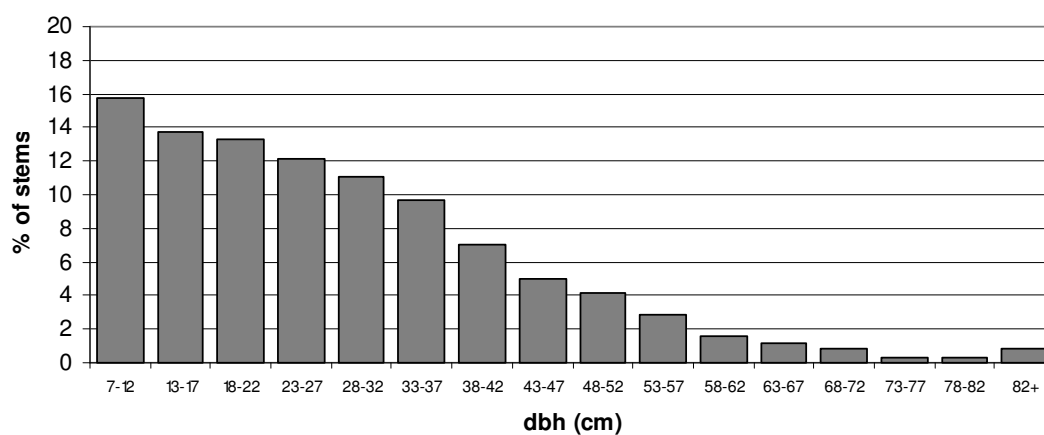


Table 3.4 Frequency and basal area of adult trees and stems by species.

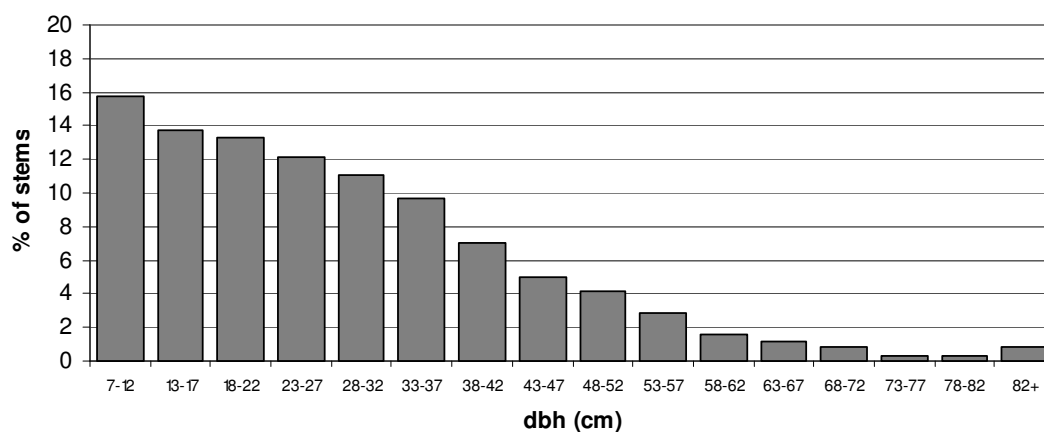
Species	No. trees	% of trees	No. stems	% of stems	Basal area (m ²)	% of basal area
<i>Betula pubescens</i>	10126	21.356	13220	19.472	1035.80	13.636
<i>Fraxinus excelsior</i>	8771	18.498	10748	15.831	1172.55	15.437
<i>Corylus avellana</i>	4786	10.094	11434	16.841	369.72	4.867
<i>Salix cinerea</i>	3788	7.989	6488	9.556	463.89	6.107
<i>Alnus glutinosa</i>	3421	7.215	4964	7.312	598.55	7.880
<i>Quercus petraea</i>	3242	6.837	4104	6.045	1390.23	18.302
<i>Ilex aquifolium</i>	2851	6.013	3780	5.568	201.94	2.659
<i>Quercus robur</i>	2335	4.924	2835	4.176	1074.68	14.148
<i>Crataegus monogyna</i>	2099	4.427	2864	4.218	138.43	1.822
<i>Fagus sylvatica</i>	1455	3.069	1578	2.324	323.14	4.254
<i>Acer pseudoplatanus</i>	1003	2.115	1352	1.991	239.83	3.157
<i>Sorbus aucuparia</i>	822	1.734	1157	1.704	56.01	0.737
<i>Quercus petraea</i> x <i>Q. robur</i>	420	0.886	515	0.759	164.77	2.169
<i>Ulmus glabra</i>	255	0.538	312	0.460	25.17	0.331
<i>Sambucus nigra</i>	218	0.460	292	0.430	13.15	0.173
<i>Pinus sylvestris</i>	183	0.386	184	0.271	59.74	0.787
<i>Salix caprea</i>	182	0.384	284	0.418	33.46	0.441
<i>Salix aurita</i> x <i>S. cinerea</i>	167	0.352	257	0.379	8.25	0.109
<i>Prunus spinosa</i>	133	0.280	144	0.212	4.37	0.058
<i>Taxus baccata</i>	102	0.215	118	0.174	41.46	0.546
<i>Picea sitchensis</i>	92	0.194	92	0.136	14.91	0.196
<i>Larix decidua</i>	63	0.133	63	0.093	14.94	0.197
<i>Picea abies</i>	61	0.129	61	0.090	11.76	0.155
<i>Salix triandra</i>	60	0.127	75	0.110	3.66	0.048
<i>Salix</i> sp.	57	0.120	76	0.112	4.52	0.059
<i>Rhamnus cathartica</i>	57	0.120	64	0.094	2.08	0.027
<i>Salix fragilis</i>	50	0.105	82	0.121	13.22	0.174
<i>Euonymus europaeus</i>	50	0.105	52	0.077	1.55	0.020
<i>Alnus incana</i>	49	0.103	68	0.100	4.16	0.055
<i>Pseudotsuga menziesii</i>	46	0.097	46	0.068	3.12	0.041
<i>Carpinus betulus</i>	36	0.076	39	0.057	2.13	0.028
<i>Abies alba</i>	35	0.074	35	0.052	10.01	0.132
<i>Malus sylvestris</i>	34	0.072	43	0.063	2.42	0.032
<i>Prunus avium</i>	34	0.072	39	0.057	5.22	0.069
<i>Salix alba</i>	33	0.070	36	0.053	11.77	0.155
<i>Larix kaempferi</i>	32	0.067	32	0.047	5.08	0.067
<i>Prunus laurocerasus</i>	31	0.065	44	0.065	3.01	0.040
<i>Salix viminalis</i>	25	0.053	34	0.050	1.81	0.024
<i>Aesculus hippocastanum</i>	23	0.049	52	0.077	10.06	0.132
<i>Salix aurita</i>	18	0.038	27	0.040	0.94	0.012
<i>Ulmus procera</i>	18	0.038	20	0.029	1.69	0.022
<i>Tsuga heterophylla</i>	18	0.038	18	0.027	3.11	0.041
<i>Betula</i> sp.	17	0.036	20	0.029	1.64	0.022
<i>Betula pendula</i>	15	0.032	17	0.025	2.90	0.038
<i>Populus nigra</i> x <i>P. deltoides</i>	13	0.027	13	0.019	4.26	0.056
<i>Castanea sativa</i>	11	0.023	20	0.029	3.73	0.049
<i>Arbutus unedo</i>	11	0.023	14	0.021	0.85	0.011
<i>Sorbus aria</i> agg.	6	0.013	8	0.012	0.57	0.007
<i>Salix caprea</i> x <i>S. viminalis</i>	6	0.013	7	0.010	0.41	0.005
<i>Tilia cordata</i> x <i>T. platyphyllos</i>	5	0.011	8	0.012	3.40	0.045
<i>Quercus cerris</i>	5	0.011	7	0.010	2.31	0.030
<i>Tilia cordata</i>	4	0.008	7	0.010	21.59	0.284
<i>Pinus contorta</i>	4	0.008	4	0.006	0.22	0.003
<i>Acer campestre</i>	3	0.006	3	0.004	0.25	0.003
<i>Prunus padus</i>	3	0.006	3	0.004	0.10	0.001
<i>Salix pentandra</i>	3	0.006	3	0.004	0.22	0.003
<i>Salix purpurea</i>	3	0.006	3	0.004	0.09	0.001
<i>Populus tremula</i>	2	0.004	2	0.003	0.82	0.011
<i>Quercus rubra</i>	2	0.004	2	0.003	1.09	0.014
<i>Abies procera</i>	1	0.002	1	0.001	0.95	0.013
<i>Acer platanoideis</i>	1	0.002	1	0.001	0.28	0.004
<i>Populus nigra</i> ssp. <i>betulifolia</i>	1	0.002	1	0.001	0.07	0.001
<i>Quercus Ilex</i>	1	0.002	1	0.001	0.58	0.008
Other species	18	0.038	20	0.029	3.21	0.042
Grand total	47,416	100.000	67,893	100.000	7,595.891	100.000

Figure 3.11 Tree size frequency curves for common tree species. Note that vertical scale differs between graphs

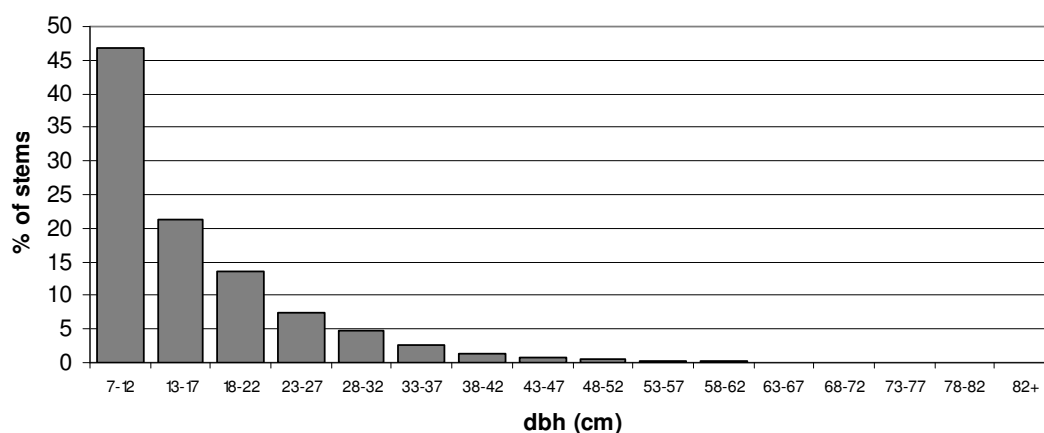
(a) *Quercus robur*



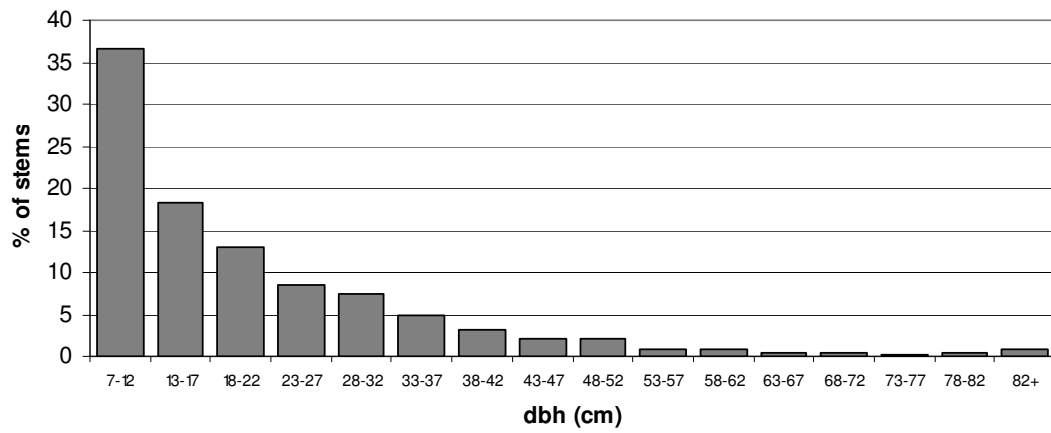
(b) *Quercus petraea*



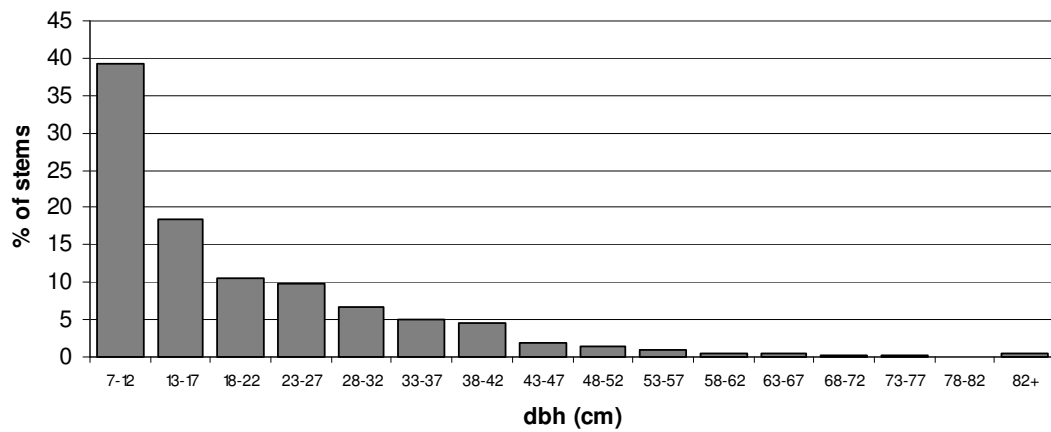
(c) *Fraxinus excelsior*



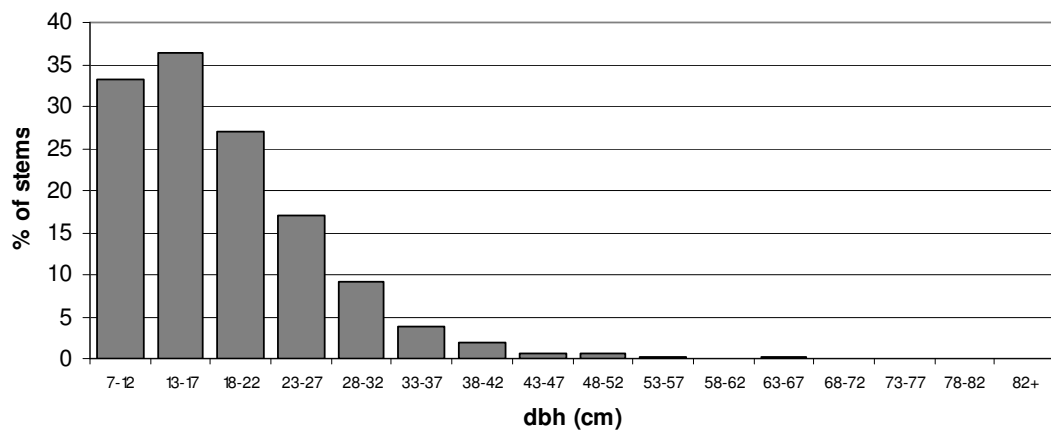
(d) *Fagus sylvatica*



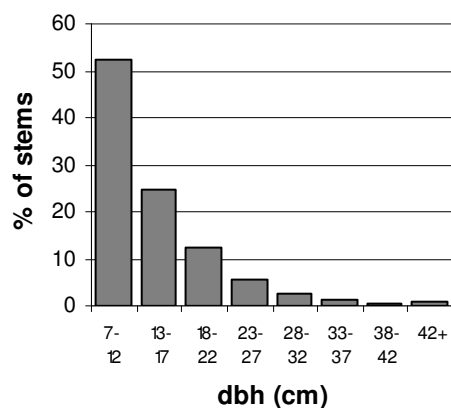
(e) *Acer pseudoplatanus*



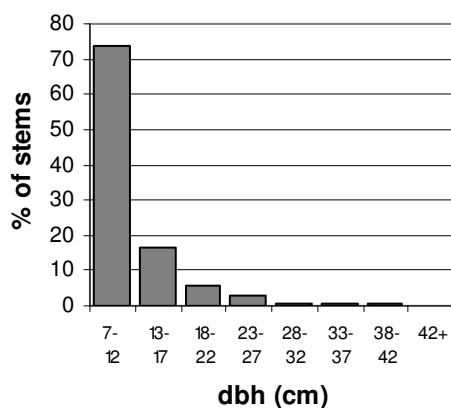
(f) *Alnus glutinosa*



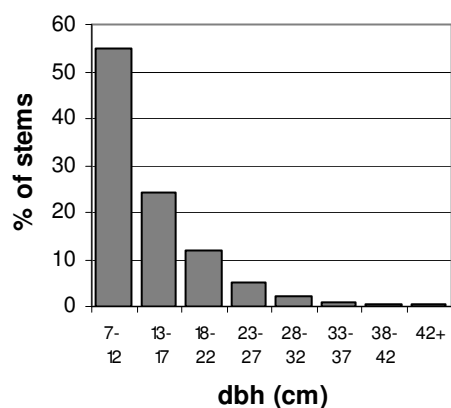
(g) *Betula pubescens*



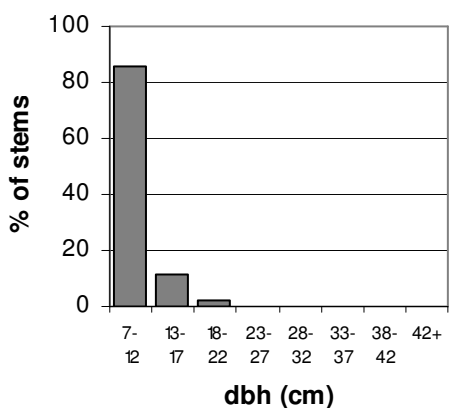
(h) *Sorbus aucuparia*



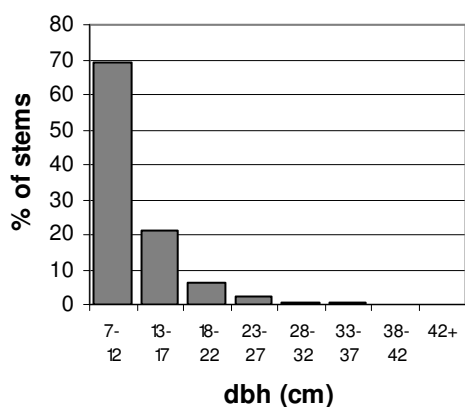
(i) *Salix cinerea*



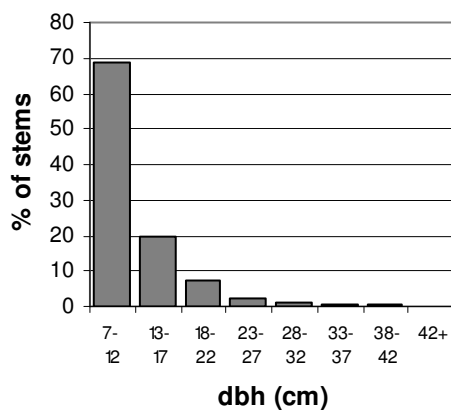
(j) *Corylus avellana*



(k) *Crataegus monogyna*



(l) *Ilex aquifolium*



3.10 Merchantable timber

Data on merchantable timber were collected for stems recorded in the main survey with a dbh ≥ 40 cm. Of the 67,893 adult stems measured during the main survey, 38 taxa contributed stems of merchantable size, but this resource comprised only 2,593 stems (3.8%) in total (see Table 3.5). Native oaks (*Quercus robur*, *Q. petraea* and *Q. petraea* x *Q. robur*) contributed just over 60% of these, with 20-22% of stems of these taxa being of merchantable size. Although only 2.9% of *Fraxinus excelsior* stems were of sufficient dbh, the high abundance of this species meant that it contributed 11.9% of merchantable stems. The most abundant native species were *Betula pubescens* and *Corylus avellana*, contributing 19.5% and 16.8% respectively of the total stem count. However, only 1.0% of *B. pubescens* stems and 0.03% of *C. avellana* stems were of merchantable dbh, contributing only 5.3% and 0.1% respectively to the tally of merchantable stems.

Non-native trees comprised just 6% of all stems measured, but a higher percentage (14.4%) had a merchantable dbh. The most frequent non-native species were the broadleaved *Fagus sylvatica* and *Acer pseudoplatanus*, which comprised 6.1% and 4.6% respectively of the total merchantable timber. Together, these species outnumbered all other non-native taxa put together, both in terms of the total number of stems measured and the number of merchantable stems.

Table 3.5. Frequency of stems of merchantable size by species.

	No. of recorded stems	No. of stems dbh ≥ 40 cm	% of each species with dbh ≥ 40 cm	% of all stems dbh ≥ 40 cm
<i>Quercus petraea</i>	4,104	868	21.2	33.5
<i>Quercus robur</i>	2,835	579	20.4	22.3
<i>Fraxinus excelsior</i>	10,748	308	2.9	11.9
<i>Fagus sylvatica</i>	1,578	158	10.0	6.1
<i>Betula pubescens</i>	13,220	138	1.0	5.3
<i>Acer pseudoplatanus</i>	1,352	119	8.8	4.6
<i>Quercus petraea</i> x <i>Q. robur</i>	515	115	22.3	4.4
<i>Alnus glutinosa</i>	4,964	93	1.9	3.6
<i>Salix cinerea</i>	6,488	37	0.6	1.4
<i>Pinus sylvestris</i>	184	34	18.5	1.3
Other	21,912	144	0.8	5.6
Total	67,893	2,593	3.8	100

Of the 2,593 stems of merchantable size, log length was recorded for only 1,552 stems (59.9%) as shown in Table 3.6. This low overall percentage of valid log length was primarily due to the high frequency of stem defects, with 64.1% of stems of merchantable size having one defect and 21.7% having two or more defects. In some cases, these defects will have

reduced or invalidated merchantable log length (e.g. fork), whilst in others they will have reduced the quality of the timber (e.g. heavy ivy). For example, over 92% of merchantable stems of *B. pubescens* had one or more defects, resulting in log length being recorded for only 33.3% of birch stems of merchantable size. In contrast, while 83.5% of stems of *Q. robur* x *Q. petraea* possessed one or more defects, there was still a valid log length for 88.7% of the oak stems of merchantable size. Overall, of those species having over 50 merchantable stems, *Alnus glutinosa* and *B. pubescens* were particularly severely affected by stem defects (over 90% of all stems for each species), with *Fraxinus excelsior* next at 89% of stems affected. In general these species had shorter mean log lengths as a result (4.6 m, 5.3 m and 5.1 m respectively). *Pinus sylvestris* was the least severely affected by defects and as a result had a longer mean log length (11.6 m).

The most frequently recorded faults were forks (affected 29.0% of trees of merchantable size), heavy branches (21.5%), kinks/bends (16.9%) and heavy ivy (15.6%).

Table 3.6 Frequency of viable log length and stem defects by species.

	No. of merch. stems with valid log length	% of merch. stems with valid log length	Mean valid log length	% of stems dbh ≥40cm with 1 defect	% of stems dbh ≥40cm with ≥2 defects
<i>Quercus petraea</i>	553	21.3	5.6	68.5	19.4
<i>Quercus robur</i>	407	15.7	7.0	54.6	28.2
<i>Fraxinus excelsior</i>	148	5.7	5.1	68.8	20.1
<i>Fagus sylvatica</i>	110	4.2	6.2	69.0	13.9
<i>Quercus petraea</i> x <i>Q. robur</i>	102	3.9	7.6	58.3	25.2
<i>Acer</i> <i>pseudoplatanus</i>	69	2.7	6.1	69.7	16.0
<i>Betula pubescens</i>	46	1.8	4.6	70.3	21.7
<i>Pinus sylvestris</i>	30	1.2	11.6	47.1	17.6
<i>Alnus glutinosa</i>	28	1.1	5.3	72.0	25.8
<i>Salix cinerea</i>	1	0.06	1	81.1	18.9
Other	58	3.7	0.3	54.7	21.5
Total	1,552	100	6.3	64.1	21.7

3.11 Species richness

Site species lists were available for all 1,320 sites surveyed. As bryophyte surveying was concentrated primarily within the relevés, only data for vascular plant data are referred to here. Vascular plant richness tends to increase with site area, with the relationship most strongly fitting a logarithmic model (Fig. 3.12). This fits with the trend of diminishing returns generally found in biological sampling.

Vascular species richness was also found to be higher for sites which had some woodland present on the 1st edition Ordnance Survey maps of the 1840s compared to those which had no woodland present (Fig. 3.13).

Figure 3.12 Vascular plant richness in relation to woodland area with overlay of logarithmic model.

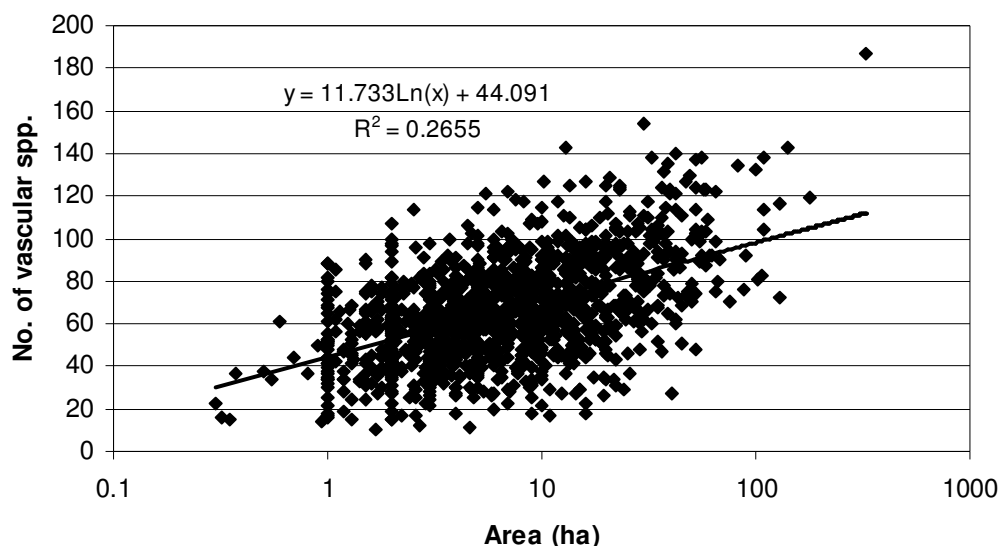
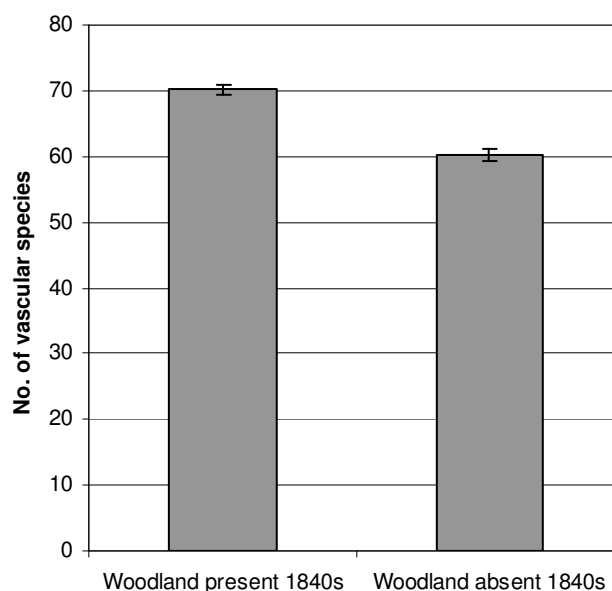


Figure 3.13 Mean vascular species richness of sites with and without woodland in the 1840s. Vertical bars indicate standard errors.



There was a difference in the relationship between vascular species richness and area, depending on whether woodland was present in the 1840s or not. Pearson's correlation test was used to investigate the relationship between site area and vascular species diversity separately for long-established (present in 1840s) and new (absent in 1840s) woodlands. A

stronger area-species diversity relationship was found for long-established woods (Fig. 3.14; $r=0.53$, $n=794$, $p<0.01$), compared to newer woods (Fig. 3.15; $r=0.39$, $n=524$, $p<0.01$). According to the interpretation guidelines of Cohen (1988) when interpreting correlations of this nature, an r -value of 0.3 to 0.49 is indicative of a medium correlation, while an r -value of 0.5 to 1 indicates a large correlation. Therefore, there is a medium correlation between area and species diversity for newer woods, while older woods have a large correlation between these variables. Younger woods are likely to be in a state of flux due to continuing succession, especially where disturbance is still an influence, and still have not attained their full potential complement of species. Older sites are more likely to have reached equilibrium with potential plant colonisers, and are thus effectively saturated.

Figure 3.14 Vascular species richness by area for long-established (1840s) woodland

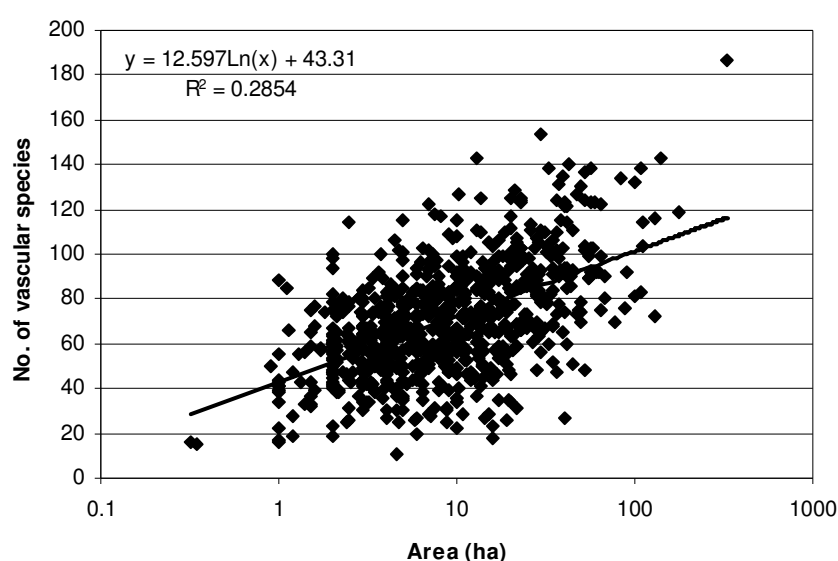
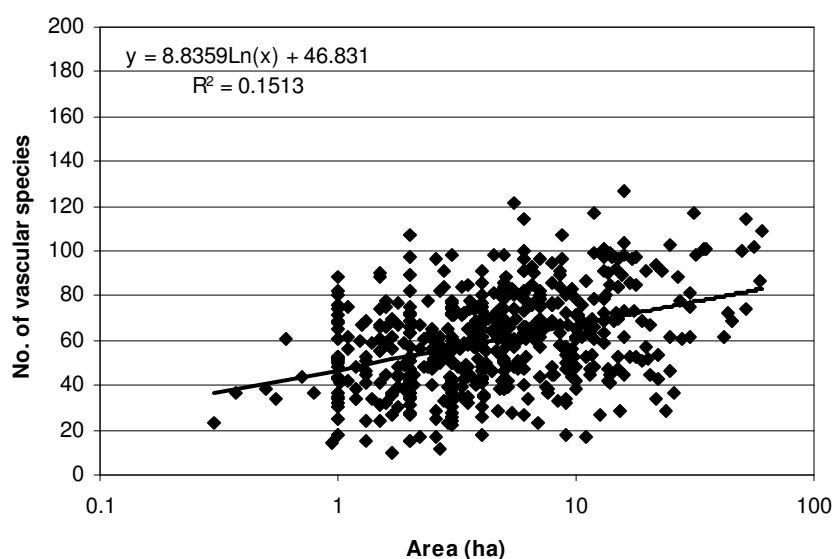


Figure 3.15 Vascular species richness by area for new (non-1840s) woodlands



3.12 Natural regeneration

Data on regenerating stems (dbh <7 cm) were collected from each 10 m x 10 m relevé recorded within the main survey. Data for the fifteen most abundantly regenerating species (more than 1,000 regenerating stems, including basal regeneration) are given in Table 3.7. Data presented are based mainly on free regeneration as this is a measure of seedling recruitment, indicating the regeneration potential of the species. To account for the varying abundance of adult stems among the different species, and therefore the potential for natural regeneration to be occurring, ratios of regenerating stems : adult stems were calculated for each species after adjusting for density differences in measurements. Note that this is not a measure of the number of regenerating stems per adult *tree*, as some trees had more than one adult stem. The distribution of the different size classes for each species (free regeneration only) is also indicated in Table 3.7.

Table 3.7 Most frequently regenerating tree species.

	Total no. stems incl. basal	% free*	Free regen. per adult stem	Distribution of freely-regenerating stems in each class (% of free regen. total)				
				<25cm	25cm-1m	1-2m	2-4m	>4m
<i>Fraxinus excelsior</i>	265,122	99.3	79.2	95	2	1	1	1
<i>Corylus avellana</i>	25,838	42.9	7.3	4	13	17	30	36
<i>Ilex aquifolium</i>	22,210	91.2	18.9	42	34	14	7	3
<i>Acer pseudoplatanus</i>	19,313	98.8	45.9	92	5	2	1	1
<i>Betula pubescens</i>	15,437	79.6	3.7	63	5	4	9	20
<i>Quercus petraea</i>	8,224	90.3	6.4	94	3	1	1	1
<i>Crataegus monogyna</i>	5,117	90.1	5.7	19	22	22	24	14
<i>Alnus glutinosa</i>	4,737	24.5	3.1	9	21	27	23	21
<i>Sorbus aucuparia</i>	3,267	89.3	9.1	33	21	12	12	21
<i>Prunus spinosa</i>	3,034	95.3	67.7	25	49	17	8	2
<i>Salix cinerea</i>	2,216	67.2	1.1	1	5	11	35	49
<i>Euonymus europaeus</i>	1,742	97.9	107.6	26	45	15	11	3
<i>Quercus robur</i>	1,717	82.4	1.9	81	8	2	4	4
<i>Viburnum opulus</i>	1,689	100	N/A**	37	41	15	4	3
<i>Ulmus glabra</i>	1,054	74.6	10.8	11	27	26	20	16

* % free indicates the percentage of total regeneration classed as free regeneration.

** No adult stems were recorded for *Viburnum opulus* so a ratio could not be calculated.

Regeneration of *Fraxinus excelsior* was by far the most abundant, accounting for 69% of all regeneration, and nearly three-quarters of all free regeneration, recorded. The number of adult stems of the species measured in relevés was also the third highest overall, so these figures reflect the prominent place this species has in Irish woodlands. The vast majority of this regeneration (95%) consisted of freely regenerating seedlings <25 cm in height which often carpet the woodland floor (in one instance, an estimated 17,500 *F. excelsior* seedlings were present in one 100 m² relevé). However, high mortality means that only a small proportion of these seedlings persist through to the larger size classes. The number of freely

regenerating stems per adult stem recorded for *F. excelsior* was 79, by far the highest of the top regenerating species. However, most of these are concentrated in the smallest size class, and only a few, based on the observations of this study, are likely to survive to adulthood.

Corylus avellana and *Alnus glutinosa* differ from the other species in that the majority of regenerating stems recorded were basal stems attached to adult trees rather than free regeneration (57.1% and 75.5% respectively); *C. avellana* in fact accounted for more than half of all basal regeneration recorded. Both of these species were frequently encountered as multi-stemmed individuals, with very often more than 10 adult stems measured for a single tree. The occurrence of seedlings for both of these species was low, with most free regeneration found in the larger size classes: it was highest for *C. avellana* in the >4 m class, and for *A. glutinosa* in the 1-2 m class.

Basal regeneration was also an important feature for both *Salix cinerea* and *Ulmus glabra*. Seedlings of *S. cinerea* were rarely recorded, almost half (49%) of the free regeneration for the species being in the largest size class, >4 m. *U. glabra*, in contrast, showed a relatively even spread among all five size classes, with the highest proportion of seedlings recorded in the 25 cm – 1m range. Notably, *U. glabra* had a free regenerating stem : adult stem ratio of 11, partly a measure of its seed output and partly indicating perhaps that this species recruits seedlings to adulthood more rapidly (i.e. produces seeds younger) than more slow-growing species. It should also be noted that this species characteristically suckers and some of these suckers may have been difficult to distinguish from true free regeneration, resulting in a slight over-recording of free regeneration for the species.

Ilex aquifolium accounted for just under 6% of all regeneration; most of this was free generation (91.2%), although given the tendency for this species to layer far from the parent tree, this may have been slightly over-recorded. Free regeneration of *I. aquifolium* tended to be concentrated in the smaller size classes, although 10% of its regeneration was greater than 2 m, indicating that a good proportion is surviving to sapling/young adult stage. In terms of free regeneration per adult stem, this species had a relatively high figure of 19, an indication that follow-through from seed production to germination and growth has a good success rate.

The non-native species with the highest rate of free regeneration was *Acer pseudoplatanus*, the only non-native species to occur in the top 15, and occupying fourth place in the list: over 5% of all regeneration was due to this species. The vast majority of this was again free (99%), with most of it concentrated in the smallest size class of <25 cm (92%). This is a similar pattern to that described above for *F. excelsior*, with survival through to larger saplings very low overall (only 2% of its regeneration was >2 m). This species had a high regeneration ratio

with 46 free regenerating stems per adult stem measured; as for *F. excelsior*, however, mortality rates are high, and most of these will not survive to become a reproducing adult.

Betula pubescens accounted for quite a small proportion of the total regeneration recorded (4%), with almost 80% of this being free. *B. pubescens* is regarded as a pioneer species, due to its tendency to colonise open areas (e.g. clearfell, cutover bog) rapidly by the production of large numbers of seeds. As for *F. excelsior*, the mortality rate among small seedlings is high: most (63%) free regeneration for *B. pubescens* was in the smallest size class of <25 cm. However, 20% was also in the >4 m class, indicating that a good proportion of its free regeneration does in fact make it through to sapling stage. Relating free regeneration to the number of adult stems recorded, just under 4 freely regenerating stems of *B. pubescens* were recorded for each of the adult stems measured.

Regeneration for oak species was relatively poor, with *Quercus petraea* and *Q. robur* accounting for 2.1% and 0.4% of all regeneration recorded respectively. Although high numbers of seedlings were occasionally recorded (e.g. 6,000 *Q. petraea* seedlings estimated in one 100 m² plot), survival through to the larger size classes was very low for both of these species. *Q. petraea* had a higher proportion than *Q. robur* of seedlings in the smallest size class (94%, compared to 81% for *Q. robur*), the difference possibly due to a small number of plots which had high numbers of *Q. petraea* seedlings. When relating the free regeneration to the number of adult stems recorded, a value of just over 6 freely regenerating stems per adult stem was calculated for *Q. petraea*, with a lower figure of 2 freely regenerating stems per adult stem for *Q. robur*, more likely to belong to the smallest size class. Irish oaks are light-demanding species which regenerate best outside woods or in large canopy gaps.

Crataegus monogyna was notable in that the distribution of free regeneration among the five size classes was among the most even of the analysed species, with a slightly lower proportion found in the tallest size class of >4 m (14% of free stems). Over 90% of the regeneration recorded for this species was free, with almost 6 free regenerating stems recorded for every mature stem measured.

Sorbus aucuparia also displayed a good proportion of free regeneration in the larger size classes, although 33% of all free *S. aucuparia* regeneration was <25 cm tall. However, 33% of all *S. aucuparia* regeneration was also over 2 m, an indication of the recruitment success of this species. The number of free regenerating stems per adult stem measured was 9: thus, for every adult stem recorded, there are on average 3 seedlings <25 cm, 3 freely regenerating stems of 25 cm – 2 m, and 3 saplings of >2 m.

Euonymus europaeus and *Prunus spinosa* have some of the highest ratios of free regeneration to adult stems (highest and third highest respectively). This is due to these small stature species being capable of fertile seed production before they attain dbh sizes >7 cm. In

addition, *Prunus spinosa* regularly produces new stems through suckering, and some over-recording of free regeneration may have occurred. Free regeneration of both species was in the smaller size classes (both were highest in the 25 cm – 1 m size class). However, 10% of *P. spinosa* and 14% of *E. europaeus* free regeneration was over 2 m.

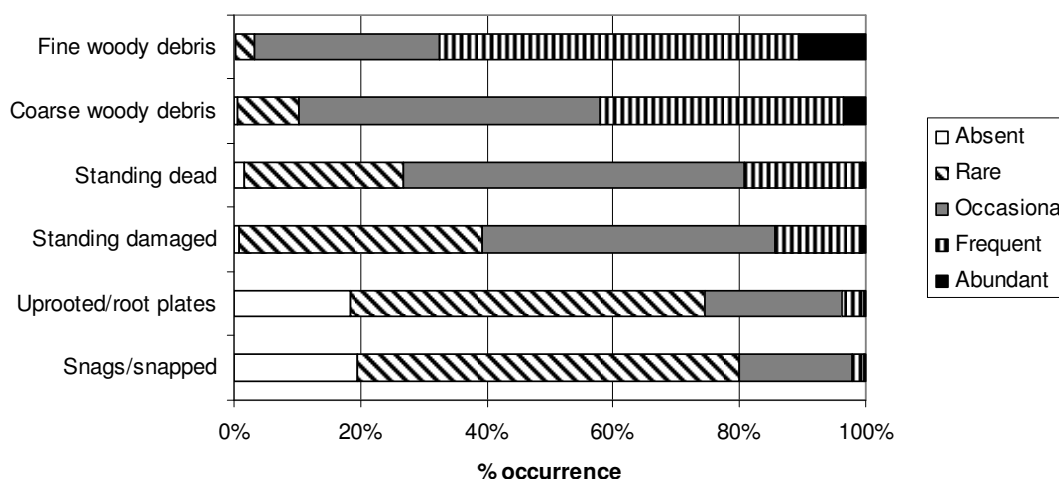
No mature *Viburnum opulus* trees were measured during the survey; hence a value could not be calculated for the ratio of free regenerating stems to mature stems. Any regeneration observed is likely to have been as a result of seeds from parent trees some distance away from the recorded seedlings, probably carried in by birds and/or by river action. In common with the other small-statured trees discussed above, *E. europaeus* and *P. spinosa*, the highest proportion of free regeneration for this species occurred in the 25 cm – 1 m size class, with 7% of free regeneration for the species over 2 m.

A notable absentee from this table is *Fagus sylvatica*, frequently recorded as a canopy tree but recorded in relevés as immature saplings and seedlings much less frequently. This would seem to indicate that regeneration of *F. sylvatica* in native Irish woods is less of a problem than, for example, *Acer pseudoplatanus*. High levels of *F. sylvatica* regeneration were noted in beech woods, but these were not surveyed as they were deemed non-native stands.

3.13 Dead wood

The abundance of dead wood was recorded for the 1,217 sites in the main survey. Dead wood increases the range of substrates available to lichens and bryophytes and provides important niches and resources for other taxa, most notably invertebrates. The accumulation of a range of dead wood types takes time and is indicative of older woodlands. The removal of large stature dead wood from intensively managed sites can reduce their conservation status. The recorded abundance of dead wood in six categories is given in Fig. 3.16.

Figure 3.16 The abundance of dead wood in six different categories



Fine woody debris and coarse woody debris were the most abundant types of dead wood, being frequent or occasional at the vast majority of sites. Standing dead and standing damaged were predominantly recorded as frequent or occasional but were often recorded as rare. Uprooted trees, root plates, snags and snapped trees were largely rare or absent. Such a pattern is unsurprising given the nature of the different categories: fine woody debris may be generated by most trees in most years, whereas uprooted trees are a rarer chance occurrence.

3.14 Lichens

Ten lichen species from the checklist were recorded from more than five percent of relevés (Table 3.8). *Lepraria incana* agg. and *Graphis scripta* / *G. elegans* were by far the most frequently recorded species, being recorded from approximately half of all relevés. Lichens deemed to be of conservation note (*Lobaria* spp., *Sticta* spp., *Dimerella lutea* and *Peltigera horizontalis*) were all rare, being each recorded from less than 2% of relevés. Due to identification difficulties, it is likely that many lichen species were under-recorded.

Table 3.8 Most frequently recorded lichen species

Species	% of relevés	Most frequent host
<i>Lepraria incana</i> agg.	53.1	<i>Betula pubescens</i>
<i>Graphis scripta</i> / <i>G. elegans</i>	47.9	<i>Fraxinus excelsior</i>
<i>Parmelia perlata</i>	22.8	<i>Betula pubescens</i>
<i>Parmelia caperata</i>	13.2	<i>Salix cinerea</i>
<i>Pyrenula macrospora</i>	12.0	<i>Fraxinus excelsior</i>
<i>Thelotrema lepadinum</i>	10.0	<i>Ilex aquifolium</i>
<i>Usnea subfloridana</i>	8.5	<i>Betula pubescens</i>
<i>Cladonia coniocraea</i>	7.7	<i>Betula pubescens</i>
<i>Ramalina farinacea</i>	6.7	<i>Salix cinerea</i>
<i>Lecanora chlorotera</i>	5.3	<i>Fraxinus excelsior</i>

3.15 Notable species

Of the 30 vascular species used as part of the conservation assessment, 25 species were recorded during the main survey or the pilot studies (Table 3.9). The most frequently recorded notable species were *Anemone nemorosa* and *Galium odoratum*, both of which are indicative of long-established woodland rather than being rare. The relatively high frequency of *Galium odoratum* reflects the abundance of the base-rich woodland soils on which it occurs. Other notable species recorded many times were *Carex strigosa*, *Melica uniflora*, *Rhamnus cathartica* and *Prunus padus*. The following notable species, which are currently listed on the Flora Protection Order, 1999, were all recorded, but each at fewer than 4 sites: *Cephalanthera longifolia*, *Hypericum hirsutum*, *Stachys officinalis*, *Trichomanes speciosum*, *Viola hirta*.

The five notable species not found were *Carex depauperata*, *Gymnocarpium dryopteris*, *Hordelymus europaeus*, *Monotropa hypopitys* and *Pyrola media*. These species are all rare or

unrecorded in the Republic of Ireland, although some are present or more frequent in Northern Ireland. *Carex depauperata* is recorded in Ireland from only one limestone woodland in Cork. *Gymnocarpium dryopteris*, a species of shaded, rocky areas in the mountains, has not been recorded in the Republic of Ireland since the 19th century and in Northern Ireland not since 1986. *Hordelymus europaeus* has never been recorded in the Republic of Ireland and has not been seen in Northern Ireland since 1949, when it occurred on a shady river bank. *Monotropa hypopitys* has recently been recorded from at least three 10 km x 10 km squares in the Republic of Ireland. The lack of records from this project for this species may be due to its preference for pine and beech woods, habitats which would not have been surveyed. *Pyrola media*, a plant of heaths and woodland, has been seen at only two sites in the Republic since 1970. Reference was made in this section to Curtis & McGough (1988) and Preston *et al.* (2002).

Table 3.9 Frequency of records for notable vascular plant species from 1,320 sites.

Species	Freq.	Species	Freq.
<i>Anemone nemorosa</i>	231	<i>Milium effusum</i>	16
<i>Arbutus unedo</i>	6	<i>Monotropa hypopitys</i>	0
<i>Bromus racemosus</i>	8	<i>Neottia nidus-avis</i>	14
<i>Campanula trachelium</i>	5	<i>Orobancha hederæ</i>	17
<i>Cardamine amara</i>	2	<i>Phegopteris connectilis</i>	4
<i>Carex depauperata</i>	0	<i>Prunus padus</i>	37
<i>Carex strigosa</i>	41	<i>Pyrola media</i>	0
<i>Cephalanthera longifolia</i>	4	<i>Pyrola minor</i>	1
<i>Frangula alnus</i>	15	<i>Pyrola rotundifolium</i>	1
<i>Galium odoratum</i>	123	<i>Rhamnus cathartica</i>	69
<i>Gymnocarpium dryopteris</i>	0	<i>Sorbus devoniensis</i>	3
<i>Hordelymus europaeus</i>	0	<i>Sorbus hibernica</i>	17
<i>Hypericum hirsutum</i>	3	<i>Stachys officinalis</i>	1
<i>Lamium galeobdolon</i> ssp. <i>montanum</i>	3	<i>Trichomanes speciosum</i>	3
<i>Melica uniflora</i>	73	<i>Viola hirta</i>	1

The identification of the moss *Calypstrochaeta apiculata* from near Fota Wildlife Park, Co. Cork constitutes a new national record.

3.16 Species frequency

Site species lists from all 1,320 sites were examined to determine the most commonly recorded species. In total 1083 plant taxa were recorded. The frequency of all these taxa is presented in Appendix 3, whilst Table 3.10 shows those occurring at more than 50% of sites. The most frequent tree species, and third most frequent species overall, was *Crataegus monogyna*, at least one individual of which was found in 92.3% of all sites surveyed. This is followed by *Fraxinus excelsior* (ranked fourth most frequent overall), recorded at 90.2% of all sites. In descending rank order, the next most frequent tree species are: *Ilex aquifolium* (85.4% of sites), *Salix cinerea* (78.2%), *Betula pubescens* (72.4%), *Acer pseudoplatanus* (72.1%), *Corylus avellana* (70.2%), *Fagus sylvatica* (68.6%), *Prunus spinosa* (61.1%), *Sorbus aucuparia* (55.6%), *Quercus robur* (52.3%) and *Alnus glutinosa* (51.1%).

Three low woody species were regularly recorded during the survey; two of these were the most frequently recorded species overall. These were *Rubus fruticosus* (found in 98.0% of all woodlands surveyed) and *Hedera helix* (96.6%). Together with *Lonicera periclymenum* (84.5% of sites, and eighth most frequent overall), these were the only low woody species to be found in over half of the sites; other common low woody species, such as *Rosa* spp., *Vaccinium myrtillus* and *Rhododendron ponticum*, were more prevalent in specific woodland types.

In total, fifteen broadleaved herb species were found to occur in more than half of the sites. It is probably no coincidence that most of these are associated with more species-rich woodlands such as oak-ash-hazel woodland, rather than, for example, with acid oak woodlands, which are typically herb-poor. The most frequent herb species was *Geranium robertianum* (83.2% of sites and ninth most frequent species overall). Thus this is a broad-tolerance species, found in a range of moisture regimes and soil types but generally absent from more acidic sites. *G. robertianum* is followed by *Ranunculus repens*, *Filipendula ulmaria*, *Geum urbanum* and *Urtica dioica*, all of which occur in more than 70% of sites. Where sites were surveyed later in the season there is likely to have been some under-recording of vernal herbs, such as *Anemone nemorosa* and *Hyacinthoides non-scripta*.

Graminoids (grasses, sedges and rushes) appear to be less broad-spectrum than other groups: the most frequent graminoid, *Juncus effusus*, was ranked twenty-fourth overall and occurred in just over 65% of all sites (the most frequent species of each other plant group was found in over 80% of sites). In all, only six graminoid species occurred in over 50% of sites: one rush (*J. effusus*), three grasses (*Agrostis stolonifera*, *Holcus lanatus*, *Brachypodium sylvaticum*) and two sedges (*Carex remota* and *C. sylvatica*).

In total, seven fern species occurred in over half of the sites surveyed, with *Dryopteris dilatata* by far the most frequent, found in 89.8% of sites, and ranking as the fifth most frequently-occurring species overall. *D. affinis* was also frequent (69.6% of sites), followed by *Pteridium aquilinum* (65.0%). The epiphyte *Polypodium vulgare* was also a notable component of the woods surveyed (60.9% of sites), its presence in this list no doubt reflecting its common epiphytic association with mature *Quercus* spp. trees.

No horsetails (*Equisetum* spp.) were recorded in more than 50% of sites, the most frequent species, *E. arvense*, occurring in just 17.0% of sites.

It is perhaps notable that no liverworts occurred in over 50% of sites. This may be allied to the fact that these are small species, sometimes easy to overlook. The most frequent bryophytes were all mosses, with *Thuidium tamariscinum* the most frequently recorded bryophyte species and sixth most frequent species overall (86.5% of sites), followed by *Kindbergia praelonga*

(83.0%; tenth most frequent species overall). These two mosses are both conspicuous and are found in a broad range of habitats (Smith 2004). *Eurhynchium striatum* (71.1% of sites), *Hypnum cupressiforme* (68.1%) and *Isoetes myosuroides* (63.0%) were also prominent bryophyte species in Irish native woodlands.

Table 3.10 Species occurring in more than 50% of sites surveyed

		% frequency	Overall ranking
Trees	<i>Crataegus monogyna</i>	92.3	3
	<i>Fraxinus excelsior</i>	90.2	4
	<i>Ilex aquifolium</i>	85.4	7
	<i>Salix cinerea</i>	78.2	11
	<i>Betula pubescens</i>	72.4	13
	<i>Acer pseudoplatanus</i>	72.1	=14
	<i>Corylus avellana</i>	70.2	19
	<i>Fagus sylvatica</i>	68.6	21
	<i>Prunus spinosa</i>	61.1	=28
	<i>Sorbus aucuparia</i>	55.6	38
	<i>Quercus robur</i>	52.3	=44
	<i>Alnus glutinosa</i>	51.1	=49
Low woody plants	<i>Rubus fruticosus</i>	98.0	1
	<i>Hedera helix</i>	96.6	2
	<i>Lonicera periclymenum</i>	84.5	8
Broadleaved herbs	<i>Geranium robertianum</i>	83.2	9
	<i>Ranunculus repens</i>	73.6	12
	<i>Filipendula ulmaria</i>	72.1	=14
	<i>Geum urbanum</i>	71.6	16
	<i>Urtica dioica</i>	71.5	17
	<i>Circaea lutetiana</i>	65.5	23
	<i>Viola</i>	64.4	24
	<i>Oxalis acetosella</i>	59.6	32
	<i>Primula vulgaris</i>	54.0	40
	<i>Angelica sylvestris</i>	53.9	41
	<i>Hyacinthoides non-scripta</i>	52.3	=44
	<i>Rumex sanguineus</i>	51.8	46
	<i>Veronica chamaedrys</i>	51.5	47
	<i>Vicia sepium</i>	51.4	48
	<i>Taraxacum</i> agg.	51.1	=49
	<i>Chrysosplenium oppositifolium</i>	50.1	=52
Graminoids	<i>Juncus effusus</i>	65.2	25
	<i>Agrostis stolonifera</i>	61.1	=28
	<i>Holcus lanatus</i>	61.1	=28
	<i>Carex remota</i>	57.3	35
	<i>Carex sylvatica</i>	56.0	37
	<i>Brachypodium sylvaticum</i>	55.5	39
Ferns	<i>Dryopteris dilatata</i>	89.8	5
	<i>Dryopteris affinis</i>	69.6	20
	<i>Pteridium aquilinum</i>	65.0	26
	<i>Polypodium vulgare</i>	60.9	31
	<i>Athyrium filix-femina</i>	59.5	33
	<i>Blechnum spicant</i>	56.1	36
	<i>Phyllitis scolopendrium</i>	53.8	42
Bryophytes	<i>Thuidium tamariscinum</i>	86.5	6
	<i>Kindbergia praelonga</i>	83.0	10
	<i>Eurhynchium striatum</i>	71.1	18
	<i>Hypnum cupressiforme</i>	68.1	22
	<i>Isoetes myosuroides</i>	63.0	27
	<i>Thamnobryum alopecurum</i>	58.0	34
	<i>Rhytidiadelphus triquetrus</i>	52.5	43
	<i>Plagiomnium undulatum</i>	50.9	51
	<i>Mnium hornum</i>	50.1	=52

3.17 Vegetation analysis

Outlier analysis was used to examine the 1,667 relevés. The mean distance of each sample from each other sample was calculated using Quantitative Sørensen (Bray-Curtis) as the distance measure. Samples with a mean distance of more than three standard deviations above the grand mean were regarded as outliers. This applied to five samples. All of these relevés represented rare river island or riverbank vegetation. As the methodology includes measures to reduce outlier influence and such vegetation can correspond to Annex I habitat 91E0, these relevés were retained.

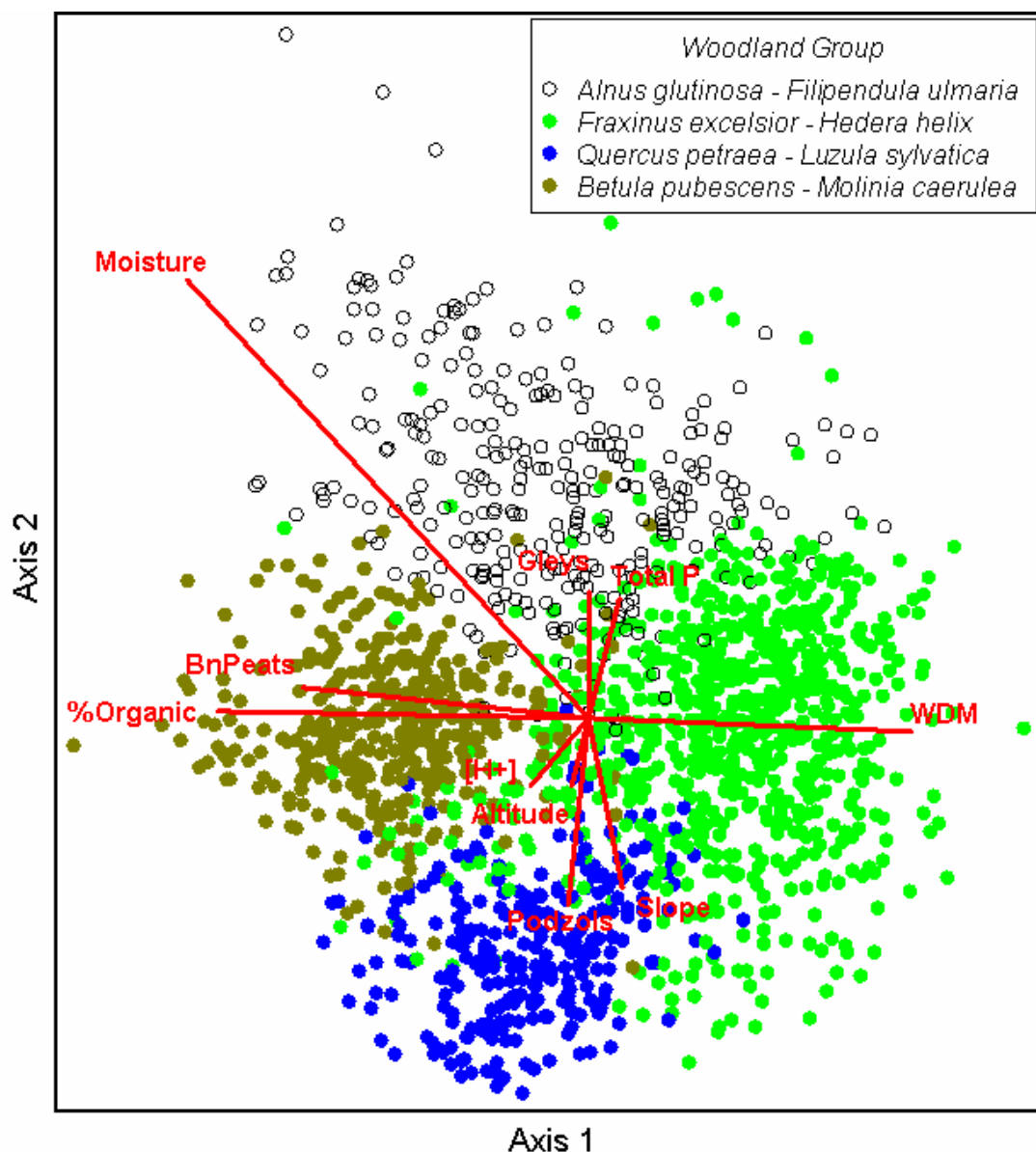
The results of the cluster analysis were examined manually and using expert judgement it was decided to cut the dendrogram at the four cluster level. The four **woodland groups** resulting from this represented combinations of two strong environmental gradients: acidic-basic and wet-dry. Groups were named using the best indicators species as identified by ISA; the best tree indicator species and the best non-tree vascular indicator species were used. For each of these four subsets of data, cluster analysis was rerun and the resulting cluster dendrograms were again examined manually to identify the level of clustering with the best ecological integrity. Hence each woodland group was divided into a number of **vegetation types**, again named after the best indicator species. Nomenclature inevitably differs from that used in interim reports (Perrin *et al.* 2006b, c) to describe broadly similar groupings. An overview of the classification is shown in Table 3.11.

Table 3.11 Overview of the native woodland classification scheme

Grouping	No. of relevés
<i>Quercus petraea</i> – <i>Luzula sylvatica</i> woodland group	260
<i>Rubus fruticosus</i> – <i>Corylus avellana</i> vegetation type	87
<i>Vaccinium myrtillus</i> – <i>Ilex aquifolium</i> vegetation type	127
<i>Luzula sylvatica</i> – <i>Dryopteris dilatata</i> vegetation type	46
<i>Fraxinus excelsior</i> – <i>Hedera helix</i> woodland group	740
<i>Geum urbanum</i> – <i>Veronica montana</i> vegetation type	189
<i>Acer pseudoplatanus</i> – <i>Crataegus monogyna</i> vegetation type	85
<i>Quercus robur</i> – <i>Rubus fruticosus</i> vegetation type	151
<i>Ilex aquifolium</i> – <i>Sorbus aucuparia</i> vegetation type	25
<i>Corylus avellana</i> – <i>Oxalis acetosella</i> vegetation type	229
<i>Fagus sylvatica</i> – <i>Prunus laurocerasus</i> vegetation type	47
<i>Taxus baccata</i> – <i>Carex flacca</i> vegetation type	5
<i>Salix triandra</i> – <i>Urtica dioica</i> vegetation type	9
<i>Alnus glutinosa</i> – <i>Filipendula ulmaria</i> woodland group	296
<i>Fraxinus excelsior</i> – <i>Carex remota</i> vegetation type	99
<i>Alnus glutinosa</i> – <i>Rubus fruticosus</i> vegetation type	72
<i>Salix cinerea</i> – <i>Equisetum fluviatile</i> vegetation type	89
<i>Crataegus monogyna</i> – <i>Geranium robertianum</i> vegetation type	14
<i>Betula pubescens</i> – <i>Mentha aquatica</i> vegetation type	22
<i>Betula pubescens</i> – <i>Molinia caerulea</i> woodland group	371
<i>Rubus fruticosus</i> – <i>Dryopteris dilatata</i> vegetation type	148
<i>Vaccinium myrtillus</i> – <i>Luzula sylvatica</i> vegetation type	54
<i>Salix cinerea</i> – <i>Galium palustre</i> vegetation type	38
<i>Molinia caerulea</i> – <i>Potentilla erecta</i> vegetation type	33
<i>Hedera helix</i> – <i>Fraxinus excelsior</i> vegetation type	33
<i>Holcus lanatus</i> – <i>Agrostis capillaris</i> vegetation type	65

The NMS ordination found a 2-dimensional solution (Fig. 3.17). Stress on this solution was 24.8, which is quite high according to the guidelines of McCune & Grace (2002), but given the large sample size, a fair degree of reliance can be put on interpretation of the plot. The two axes cumulatively represented over 61% of variance in the distance. Relevés within each of the four woodland groups identified by cluster analysis grouped together in the ordination, providing validation of the cluster solution. Axis 1 strongly represents an organic-mineral soil content gradient. Axis 2 represents gradients in soil fertility and acidity. A strong moisture gradient correlates strongly with both axes.

Figure 3.17 NMS ordination plot of 1,667 woodland relevés. Colours differentiate woodland groups as shown in legend. Direction of red lines from origin shows correlation of environmental variables with axes. Length indicates strength of correlation. WDM = Well-drained mineral soils, BnPeats = Basin Peats, [H+] = Hydrogen ion concentration (linear measure of pH), Moisture = mean Ellenberg score. Axis 1 $r^2 = 0.276$, Axis 2 $r^2 = 0.335$



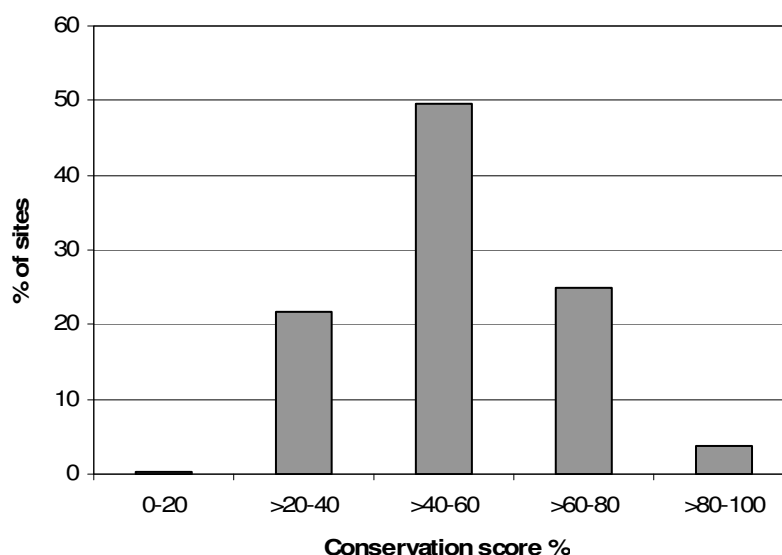
The MRPP test found statistically significant differences in the environmental matrix at the four cluster level ($A = 0.15$, $p < 0.001$). McCune & Grace (2002) warn that statistically significant results (small p values) can be obtained even when the effect size (A) is small, if, as in this case, sample size is large. However, effect size or chance-corrected within-group agreement is relatively high; McCune & Grace (2002) state A is commonly below 0.1 for community ecology. Thus the MRPP provides environmental support for cutting the cluster dendrogram at the four cluster level.

Full details of these woodland groups and vegetation types including synoptic floristic tables, summary environmental variables, stand characteristics, diversity and distribution maps are presented in Volume II.

3.18 Conservation assessment

The statistical distribution of conservation scores (Fig. 3.18) showed a normal distribution, with a mean conservation score of 51.9%. The distribution classes shown can be regarded as corresponding to woodland quality as follows: Very Poor (conservation score of between 0 and 20%), Poor (20-40%), Moderate (40-60%), Very Good (60-80%) and Excellent (80-100%).

Figure 3.18 Distribution of conservation scores among the 1,312 sites assessed.



The top 27 sites ranked by conservation assessment score are presented in Table 3.12. The full conservation assessment for each site is presented in Appendix 4, with the top sites by county presented in Appendix 5. The two sites with the highest score overall were Garryland Wood Nature Reserve, a large complex of woodland and turlough near Gort, Galway, and

Curraghchase Forest Park, part of a large Coillte property near Askeaton in Limerick. Both sites achieved maximum points in almost all categories, including plant diversity and presence of notable species. They also scored highly in terms of area and presence of several native woodland types, including Annex I woodland types. All but seven of the sites in this table are located in the west of the country, with seven from Donegal. Of the seven non-western sites, three are in Wicklow, one of the most wooded counties in the country. All of the sites listed have some kind of designation, the majority designated as pNHAs or as both pNHAs and cSACs. Nine of the sites are Statutory Nature Reserves.

Table 3.12 The top 27 sites ranked by conservation assessment score. pNHA = proposed Natural Heritage Area, cSAC = candidate Special Area of Conservation, SNR= Statutory Nature Reserve.

Rank	Site no.	Woodland name	County	Designation	Score %
=1	1594	Garryland Wood	Galway	pNHA, cSAC, SPA, SNR	93.9
=1	1986	Curraghchase Forest Park	Limerick	pNHA, cSAC	93.9
=3	1427	Ardnamona Wood	Donegal	pNHA, cSAC, SNR	90.9
=3	1439	Ards Forest Park	Donegal	pNHA, cSAC	90.9
=5	467	St. John's Wood	Roscommon	cSAC, SPA	87.9
=5	777	Glen of the Downs	Wicklow	pNHA, cSAC, SNR	87.9
=5	789	Knocksink	Wicklow	cSAC, SNR	87.9
=5	1275	Kilgarvan Wood	Kerry	pNHA	87.9
=5	1316	Glengarriff Wood	Cork	pNHA, cSAC, SNR	87.9
=5	1422	Ballyarr Wood	Donegal	pNHA, cSAC, SNR	87.9
=5	1597	Gortacarnaun	Galway	cSAC	87.9
=5	1600	Shannawoneen Wood	Galway	pNHA, cSAC	87.9
=5	1601	Derryclare	Galway	pNHA, cSAC, SNR	87.9
=5	1626	Lismore Woods	Waterford	pNHA, cSAC	87.9
15	575	Charleville South	Offaly	pNHA, cSAC	87.5
=16	345	Ballyconnell Demesne	Cavan	pNHA	84.9
=16	746	Baltynanima	Wicklow	pNHA, cSAC	84.9
=16	1317	The Gearagh	Cork	pNHA, cSAC, SPA, SNR	84.9
=16	1428	Lougheask Demesne	Donegal	pNHA, cSAC	84.9
=16	1429	Cottian Wood	Donegal	pNHA	84.9
=16	1430	Salt Pans	Donegal	pNHA, cSAC	84.9
=16	1436	Keeloges	Donegal	pNHA, cSAC	84.9
=16	1491	French Wood	Cork	pNHA	84.9
=16	1500	Dromore Nature Reserve	Clare	pNHA, cSAC, SNR	84.9
=16	1711	Ballyseedy Wood	Kerry	pNHA, cSAC	84.9
=16	1777	Brackloon Woods	Mayo	pNHA, cSAC	84.9
=16	1858	Aughnaglanny Valley	Tipperary	pNHA	84.9

In total, 574 (43.8%) of the sites surveyed are under some kind of conservation designation, although it should be noted that not all may be designated for woodlands. For example, 89 sites are within a Special Protection Area (SPA) which has been designated for bird conservation. Of the 1,312 sites that received a conservation score, 375 sites (28.6%) were of Very Good or Excellent quality (scoring over 60%). However, approximately one-third of these, 128 sites in total, do not have any conservation designation. The top scoring 19 undesignated sites are shown in Table 3.13. Of these, three sites – Toon Valley (Site 1314) in

Cork, Cappaghbaun Park (Site 1564) in Clare and Carrig East (Site 1735) in Kerry – all scored over 80%, indicating that these are excellent quality woodlands. As such, their conservation status should be reviewed with a view to their appropriate designation. Of the 19 sites listed, 16 are located in the west of the country, indicating a possible geographic gap in the current designation process.

Table 3.13 The top 19 undesignated sites ranked by conservation assessment score.

Overall Ranking	Site No.	Site Name	County	% Conservation Score
=28	1314	Toon Valley	Cork	81.8
=28	1564	Cappaghbaun Park	Clare	81.8
=28	1735	Carrig East	Kerry	81.8
=50	1329	Barrees	Cork	78.8
=50	1433	Glenineeny	Donegal	78.8
=50	1816	Ballyhamlet	Waterford	78.8
=62	154	Ballyboggan Lower	Wexford	75.8
=62	776	Castlehoward	Wicklow	75.8
=62	1356	Knockardsharriv	Cork	75.8
=62	1361	Cloheena Wood	Cork	75.8
=62	1508	Cloggagh Wood	Clare	75.8
=62	1554	Knocknageeha	Clare	75.8
=62	1567	Maryfort	Clare	75.8
=62	1665	Clooncah	Galway	75.8
=62	1674	Ardbear	Galway	75.8
=62	1748	Glanageenty	Kerry	75.8
=62	1759	Ardagh Wood	Kerry	75.8
=62	1769	Raheens	Mayo	75.8
=62	1808	Knockbaun	Mayo	75.8

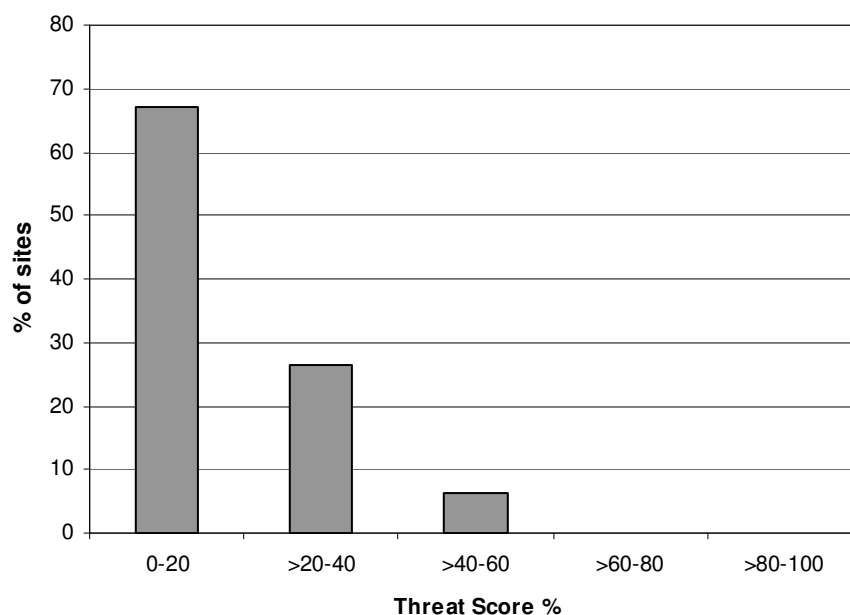
Woodlands of Poor or Very Poor quality (scoring 40% or less) tended to score poorly across all criteria, but particularly with regard to highly weighted criteria such as vascular plant diversity and area. For example, the three lowest-ranking sites, Dowdstown, Meath (Site 1254), Creggane, Cork (Site 1351) and Woodpole Fox Covert, also in Meath (Site 643), only received a score of 15.2%, with very low scores received for vascular and bryophyte diversity, area (all are less than 2 ha in size) and other conservation features such as notable species, Annex I habitats and presence of unmodified native woodland also lacking. These woods also lacked horizontal diversity, with low scores indicating that they are rather uniform stands.

3.19 Threat assessment

The distribution of threat scores (Fig. 3.19) showed a non-normal distribution, with a median threat score of 17%. The distribution classes can be regarded as corresponding to threat potential as follows: Low (threat score of between 0 and 20%), Moderate (20-40%), High (40-60%) and Severe (60-100%). From this graph, it is apparent that no woodlands scored highly enough to be regarded as being under severe threat. It is also encouraging to note that 213 sites (17.5 % of sites assessed) received a threat score of 0%. However, it should be borne

in mind that, due to the scope of this assessment, based as it is mostly on internal threats, external threats may still pose an unrecorded threat to sites. Also, parts of some sites may have been excluded from survey due to problems such as invasive species infestation. Therefore these threat assessments should be regarded as the minimum threat potential to the woodlands surveyed. Note also that sites at which invasive species are a major problem may simply have failed to meet the requirements for inclusion in the survey.

Figure 3.19 Distribution of threat scores among the 1,217 sites that received a score.



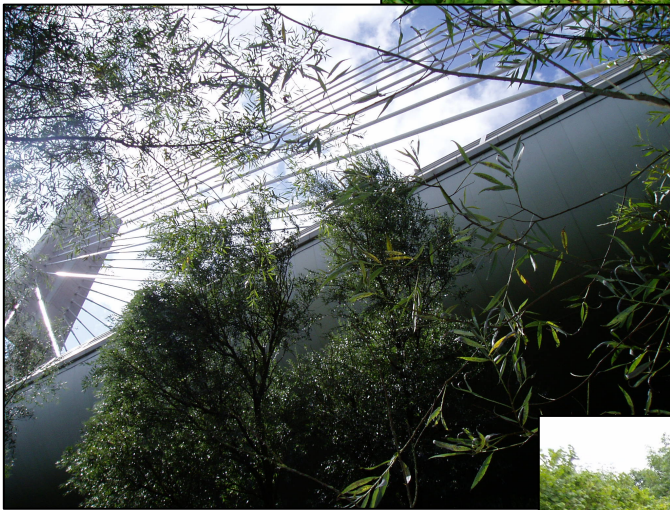
The top 21 sites ranked by threat assessment are shown in Table 3.14 together with their conservation ratings. The full threat assessment for each site is presented in Appendix 6. The main threats posed came mainly from invasive species, heavy grazing and damaging activities such as non-native planting, native felling and dumping. The list contains some sites which are highly threatened but are of poor conservation value, such as Lisnevagh Wood, Carlow (Site 184; threat score 58%, conservation score 27%) and Cornamucklagh, Louth (Site 613; threat score 50%, conservation score 30%). Of more concern, however, is that it also contains highly threatened sites of high conservation status. The most threatened site, Borris, Carlow (Site 15; threat score 58%), came highly in the conservation assessment (conservation score 79%) due to its large size, diversity of species and range of vegetation types. However, several damaging operations were recorded and the site has problems with *Rhododendron ponticum* and non-native canopy species. Indeed, part of the original site was excluded as it was deemed non-native. Stradbally Woods, Waterford (Site 1670; conservation score 79%) and Lough Slevin's Wood, Westmeath (Site 1111; conservation score 76%) are other examples of good quality woodlands under threat, again mainly due to invasive species and damaging activities. Over half of the 21 threatened sites listed in Table 3.14 are under some kind of designation, including one Statutory Nature Reserves, and this trend carries

through to the top 200 sites, which includes all sites with a threat score $\geq 33\%$, with 106 (53.0%) being designated. Note that these sites have not necessarily been designated for native woodland habitat.

Table 3.14 The top 21 sites ranked by threat assessment score. pNHA = proposed Natural Heritage Area, cSAC = candidate Special Area of Conservation, SNR = Statutory Nature Reserve.

Rank	Site no.	Woodland Name	County	Designation	% Threat Score	% Conservation Score
=1	15	Borris	Carlow	pNHA, cSAC	58.3	78.8
=1	184	Lisnevagh	Carlow		58.3	27.3
=1	346	Deerpark (Cavan)	Cavan	pNHA	58.3	66.7
=4	30	Woodville	Offaly	pNHA	50.0	48.5
=4	131	Greatwood	Kilkenny		50.0	42.4
=4	613	Cornamucklagh (Louth)	Louth	pNHA, cSAC	50.0	30.3
=4	668	Louth Hall	Louth	pNHA	50.0	42.4
=4	715	Balrath	Meath	pNHA	50.0	57.6
=4	752	Yellow Island	Meath/Louth	pNHA, cSAC	50.0	42.4
=4	921	Brackenstown Wood	Dublin		50.0	30.3
=4	1076	Scragh Bog	Westmeath	cSAC, SNR	50.0	57.6
=4	1111	Lough Slevin's Wood	Westmeath	cSAC	50.0	75.8
=4	1200	Leopardstown Woods	Dublin		50.0	33.3
=4	1210	Kilcleagh	Westmeath		50.0	48.5
=4	1264	Halfcartron	Meath		50.0	39.4
=4	1310	Garrycloyne Wood	Cork		50.0	69.7
=4	1313	Pigeon Wood	Cork		50.0	54.5
=4	1619	Derryvunlam	Galway		50.0	63.6
=4	1670	Stradbally Woods	Waterford	pNHA	50.0	78.8
=4	1791	Farrantooreen	Kerry	pNHA, cSAC	50.0	51.5
=4	1923	Corville	Tipperary		50.0	45.5

Dumping



Effects of development

Threats to Woodlands



Woodland removal



Quarrying of
esker woodland

CHAPTER 4: DISCUSSION

4.1 Critique of existing classifications

The classification of native woodland vegetation presented in Volume II is the first national Irish classification to be based objectively on a comprehensive dataset. Comparing the affinities of this scheme with existing classifications naturally demonstrates many similarities, but also highlights several deficiencies in the schemes currently in use.

The Heritage Council's *Guide to Habitats in Ireland* (Fossitt 2000) has been widely adopted as the standard system for habitat surveying and what is often termed "Phase I" habitat mapping. The system is well suited for broader scale surveying purposes, categorising as it does not only semi-natural habitats but also modified and artificial habitats. It is, however, generally regarded as lacking the requisite detail and resolution for conducting habitat-specific surveys. A result of this was the more detailed modification for woodlands by Cross (2005). As this is essentially based on the phytosociological association and subassociations of Kelly (2005), it shall be dealt with below in the review of the Braun-Blanquet scheme. In critically analysing the woodland section of Fossitt (2000) it should be borne in mind that it is a habitat classification, whereas the scheme presented in Volume II is a vegetation classification which uses environmental data solely to interpret the groupings, not to form them.

WN1 Oak-birch-holly woodland: This is a well-studied and readily identifiable habitat with less variation than some of the other common Fossitt (2000) categories. There is a good list of typical species. There are high degrees of affinity between this category and the *Quercus petraea-Luzula sylvatica* woodland group. The main issue with WN1 woodland is the inclusion of stands dominated by *Betula pubescens*, which is discussed under WN7 woodland below.

WN2 Oak-ash-hazel woodland: This category has its highest degree of affinity with the *Fraxinus excelsior – Hedera helix* woodland group. It is a very broad grouping containing considerable variation. Stands may be dominated by *Fraxinus excelsior* or *Corylus avellana* or *Quercus robur*, or any combination of these species. In addition, these woodlands are the most frequently modified by the presence of non-native broadleaves, primarily *Fagus sylvatica* and *Acer pseudoplatanus*. This variation in canopy dominance is demonstrated by five of the vegetation types in the *Fraxinus excelsior – Hedera helix* woodland group. WN2 woodland does, however, have a good list of indicative field layer species and is typically easy to recognise.

WN3 Yew woodland: In stark contrast to WN2 woodland, this is an exceptionally narrow category detailing a specific stand type which was only found at four sites during the survey. It is easy to identify and these stands formed their own vegetation type in the NSNW

classification, but it should be emphasised that only stands dominated by *Taxus baccata* should be included here, not stands where this species is simply frequent.

WN4 Wet pedunculate oak-ash woodland: This is the least well defined of the Fossitt (2000) categories and may be viewed as intermediate between WN2 and WN6. Being based on the flooding or waterlogging regime rather than a vegetation assemblage, it contains considerable variation. Relevés categorised as WN4 were spread over many vegetation types within the NSNW classification. The list of indicative species is poor and this category was found to be difficult to apply in the field. Although apparently based on the Corylo-Fraxinetum deschampsietosum, there is no mention of *Deschampsia cespitosa*.

WN5 Riparian woodland: In its strictest sense, this is another narrow but well-defined category corresponding highly with the *Salix triandra* – *Urtica dioica* vegetation type. A good list of indicative species is presented. However, being defined by geography as well as vegetation led to difficulties in interpreting this category. Many riverside woodlands would not match the vegetation of the WN5 category well but are nevertheless technically riparian.

WN6 Wet willow-alder-ash woodland: This is a very broad category containing a wide range of variation. Relevés described as WN6 were mostly allocated to the *Alnus glutinosa* – *Filipendula ulmaria* woodland group. Stands may be dominated by *Fraxinus excelsior* or *Salix cinerea* or *Alnus glutinosa* or any combination of these species. Again there is a good list of indicative species.

WN7 Bog woodland: This category is defined by edaphic conditions, not just by vegetation. Difficulties arise because birch-dominated stands occur in more contexts than just degraded / intact raised bog and peaty hollows. These stands are often successional in nature. Stands with an acidophilous field layer may be referred to the WN1 category, but there is little allowance for placing other stands within this scheme. The *Betula pubescens* – *Molinia caerulea* woodland group of the NSNW classification has six vegetation types, demonstrating the variety of birch-dominated stands. Another issue is that there is no mention of stands of wetter degraded bog stands with *Betula pubescens* and *Salix cinerea*, which the NSNW classification proves are distinct from other wet woodlands (q.v. *Salix cinerea* – *Galium palustre* vegetation type).

WD1 (Mixed) broadleaved woodland, WD2 Mixed broadleaved/conifer woodland: The main problem with applying these categories is that, whilst guidance is given for distinguishing between WD1 and WD2 based on conifer abundance, there are no guidelines for distinguishing between WD and WN woodland. At what point does a stand become sufficiently modified to qualify as WD rather than WN? Naturally, as these categories can

contain modified stands of any native type, samples ascribed to them can be decidedly varied in nature.

Overall the main criticism of the woodland classification of Fossitt (2000) is the lack of consistent resolution. Some categories are extremely specific whilst others are very broad, containing in effect many stand types. To make comparisons at a finer scale, one may turn to the phytosociological scheme in the Braun-Blanquet tradition summarised by Kelly (2005):

***Blechno-Quercetum* association:** This association described in Kelly & Moore (1975) is clearly represented in the NSNW classification by the *Quercus petraea* – *Luzula sylvatica* woodland group. There is good correlation between the coryletosum subassociation and the *Rubus fruticosus* – *Corylus avellana* vegetation type. Both groupings represent acid oakwoods on slightly more base-rich soils, which may be seen as transitional to ash-hazel stands. However, little support was found for dividing remaining acid oakwood stands solely into the typicum and scapanietosum subassociations. Whilst there is certainly regional variation, with species such as *Saccogyna viticulosa*, *Plagiochila spinulosa*, *Scapania gracilis* and *Hymenophyllum* spp. occurring in western oakwood stands, the difference that these species made to the overall vegetation composition was dwarfed by the major differences in dominance of *Vaccinium myrtillus* and *Luzula sylvatica*. Occurrences of these oceanic epiphytes were divided between the *Vaccinium myrtillus* – *Ilex aquifolium* vegetation type and the *Luzula sylvatica* – *Dryopteris dilatata* vegetation type. The *Ilex aquifolium* – *Blechnum spicant* vegetation type of the *Fraxinus excelsior* – *Hedera helix* group represents a stand variant at a smaller scale, but is not restricted to acid oakwoods.

***Corylo-Fraxinetum* association:** This association described in Kelly & Kirby (1982) is represented in the NSNW classification largely by the *Fraxinus excelsior* – *Hedera helix* woodland group. The veronicetosum and typicum subassociations find some analogies in the *Geum urbanum* – *Veronica montana* and *Acer pseudoplatanus* – *Crataegus monogyna* vegetation types, but oak-dominated variants of these subassociations were sufficiently different to form their own group, the *Quercus robur* – *Rubus fruticosus* vegetation type. Cross (2005) did not differentiate between these two subassociations. The *neckeretosum* subassociation essentially forms a subset of the large *Corylus avellana* – *Oxalis acetosella* vegetation types. Regional differences of hazel-dominated stands from the Burren were insufficient to distinguish them from hazel-rich stands elsewhere in the country. The *Taxus* facies of the *neckeretosum* correlates with the *Taxus baccata* – *Carex flacca* vegetation type. The connection of these stands with the *neckeretoseum* is not clearly apparent from the data collected, but this probably reflects insufficient sampling of rare hazel-yew intermediate stands. The occurrence of the *deschampsietosum* subassociation in Ireland was originally queried by Kelly & Kirby (1982) before being confirmed by Kelly & Iremonger (1997). However, this subassociation does not have strong affinity with any one of the NSNW vegetation types. Lacking its own core suite of indicative species, it is transitional in nature,

mainly between the *Geum urbanum* – *Veronica montana* vegetation type and the *Fraxinus excelsior* – *Carex remota* vegetation type of the *Alnus glutinosa* – *Filipendula ulmaria* group.

Wet woodland associations: Several of these associations described by Kelly & Iremonger (1997) and Cross & Kelly (2005) correlate with the *Alnus glutinosa* – *Filipendula ulmaria* woodland group. The Osmundo-Salicetum association primarily represents carr woodland of alder and willow. However, the NSNW classification found that there was sufficient difference between wet woodland stands dominated by alder and those dominated by willow to differentiate them into two vegetation types: *Alnus glutinosa* – *Rubus fruticosus* and *Salix cinerea* – *Equisetum fluviatile*. The latter vegetation type represents wetter stands. In addition a third stand type not previously described was identified, the *Betula pubescens* – *Mentha aquatica* vegetation type, which has a mixed canopy of ash, alder, willow and birch.

Little support was found for identifying the *Alnus glutinosa* – *Carex paniculata* coenon community as a separate category. During the NSNW, *Carex paniculata* occasionally occurred in wet woodland but it was not significantly associated with a particular suite of species or canopy type. Tussocks were seldom found to support species typical of drier niches as reported by Kelly & Iremonger (1997). Other *Carex* species, such as *C. riparia*, *C. rostrata* and *C. elata*, were at least as likely to dominate the field layer and often dominated larger areas. The occurrences reported by Kelly & Iremonger (1997) which correspond to the *Alnus glutinosa* – *Carex paniculata* community of the NVC (Rodwell 1991) represent small areas at a small number of sites. In Ireland this coenon community therefore appears to represent a minor stand variant.

The Carici-Fraxinetum and the Salicetum albae both correspond well with vegetation types in the NSNW classification: the *Fraxinus excelsior* – *Carex remota* vegetation type of the *Alnus glutinosa* – *Filipendula ulmaria* woodland group and the *Salix triandra* – *Urtica dioica* vegetation type of the *Fraxinus excelsior* – *Hedera helix* group respectively.

The remaining communities listed by Kelly (2005) relate largely to the *Betula pubescens* – *Molinia caerulea* group. Dry birch woodlands are all ascribed by Cross & Kelly (2005) to the Vaccinio uliginosi – Betuletum. However, the NSNW classification shows that there is sufficient variation to divide these stands into two categories: the species-poor *Rubus fruticosus* – *Dryopteris dilatata* vegetation type and the *Vaccinium myrtillus* – *Blechnum spicant* vegetation type. As the woodland key of Kelly (2005) shows, these stands are not restricted to dry degraded peats and may be successional to acid oakwoods on more mineral soils. Wet birch woodlands are divided by Cross & Kelly (2005) into the Salicetum auritae association and the *Sphagnum palustre* – *Betula pubescens* coenon. The Salicetum auritae association refers essentially to rare stands of birch on intact bog, whilst the coenon community refers to *Sphagnum*-rich birch stands in other situations. Both groupings are referable to the *Molinia caerulea* – *Potentilla erecta* vegetation type. Birch stands on intact bog were too rare and too variable to warrant their own grouping. A third type of wet birch

woodland has not been previously described. This is the frequent *Salix cinerea* – *Galium palustre* vegetation type which largely represents a wetter stand type of degraded bogs. The canopy is dominated by *Betula pubescens* and *Salix cinerea*. The absence of *Alnus glutinosa* distinguishes these stands from the wet woodlands of the *Alnus glutinosa* – *Filipendula ulmaria* woodland group.

In summary, the NSNW classification supports several of the phytosociological groupings listed by Kelly (2005), but others have been subdivided or refuted. In addition, several new stand types have been described.

The use of Tablefit provided a systematic way to make objective comparisons with the NVC communities of Rodwell (1991), although possibly more statistically advanced techniques are available (e.g. SIMIL developed by Lancaster University). The goodness-of-fit scores with NVC communities were overall rather low. This is probably not surprising given that not all British woodland species occur in Ireland, and some which do occur are much rarer (e.g. *Lamiastrum galeobdolon*) or typically occur only where introduced (e.g. *Mercurialis perennis*, *Acer campestre*). This need not be of great concern, the purpose of the comparison being to see where affinities lay with British woodland, rather than suggesting that Irish woodlands actually belonged to certain NVC communities. Of particular note is the comparative abundance of birch-dominated woodlands in Ireland, resulting primarily from the large areas of degraded peatland. Thus the NSNW classification places much greater relative emphasis than the NVC on describing and differentiating between birch woodlands.

The NSNW sought to survey a large number of woodland sites across the country. For practical considerations, subjectively placed relevés rather than randomly located plots have been used, as the latter approach would require much greater replication at each site. It is important that the limitations of relevé data are acknowledged in interpreting the results. Jörg (2003) points out that subjective sampling tends to overemphasize what is regarded by the surveyors as typical vegetation, at the expense of less well-characterized transitional vegetation. As a result it is improper to draw conclusions about continuity or discreteness of vegetation communities from such datasets (McCune & Grace 2002) and there is again a danger of simply reaffirming existing ideas. This problem of subjectivity may in some degree be mitigated, however, by the initial selection of survey sites, which may be described as “arbitrary but without preconceived bias” (McCune & Grace 2002). An interesting concept is that, due to the highly fragmented nature of woodland in Ireland, remaining sites may in themselves be regarded as samples of previous vegetation and / or indicators of potential vegetation (Cross 1998, 2006).

4.2 Conservation status of Irish woodlands

The assessment of the conservation value of surveyed sites highlights some reasons for encouragement. All of the top 28 sites have been designated as pNHAs or cSACs, suggesting that the current network of designated sites does cover many of the best sites in the country. Woodlands designated as pNHAs urgently need to receive full statutory designation where appropriate. The assessment also highlights that there are many sites rated as Very Good or Excellent that have not been recognised by any designation. The status of these sites needs to be reviewed. It is of particular note that several counties, particularly in the north midlands (e.g. Cavan, Monaghan, Leitrim) do not have any woodlands (or indeed semi-natural habitats of any kind), designated as part of National Parks or Statutory Nature Reserves, despite the fact that there are many woodlands of high quality in these counties. It is therefore recommended that sites in these counties be reviewed with regards to the possibility of expanding the Statutory Nature Reserves network. Statutory Nature Reserves and National Parks contain many of our best examples of native woodland but these designations should not be regarded as synonymous with high conservation value, lack of threat or adequate management. For example, at Rosturra Nature Reserve in Galway, the most frequently regenerating species is *Picea sitchensis*. At Mullangore Wood in Glenveagh National Park, Donegal, rhododendron is re-establishing and flowering in large areas previously cleared by volunteers. At Derryclare Nature Reserve, Galway, sheep grazing is a chronic problem.

Whilst no sites in the survey warranted a threat assessment of Severe, it should be noted that sites where threats were of such a high degree may well have been rejected in the field as failing to meet the minimum criteria for surveying. For example, the woods above Kylemore Abbey, Galway, have a canopy of *Quercus petraea*, *Betula pubescens*, *Sorbus aucuparia* and *Ilex aquifolium* and cover an area of over 90 ha, making it ostensibly one of the largest sites in country. However, the entire extent is totally infested by rhododendron and thus was rejected. Sites regarded as being under High threat should therefore be regarded as being on the cusp of native woodland status. Furthermore, sites with high conservation value may also be highly threatened (e.g. Borris, Carlow).

High levels of grazing and rhododendron infestation have been highlighted as major threats to Irish woodland in certain areas (e.g. the Killarney National Park; Kelly 1981, Cross 1981, Perrin *et al.* 2006a). In the past these problems have been extrapolated to the rest of the country (Neff 1974). However, the results of this survey suggest that high grazing levels are only an issue at the localised level (e.g. Derrybawn Woods, Co. Wicklow), with moderate, low or no grazing being predominant across most of the country. Furthermore, control of livestock grazing in woodlands may be as important as that of wild deer. Some sites may actually benefit from the introduction of controlled, low levels of grazing. Similarly, although *Rhododendron ponticum* was found to be the most frequent invasive shrub at the sites

surveyed, *Prunus laurocerasus* is also a frequent problem which needs addressing. The most frequent negative aspects of the woodlands surveyed were certainly the occurrence of *Fagus sylvatica* and *Acer pseudoplatanus*. Many of the selected sites were rejected in the field, or reduced in extent due to occurrence of these species, including sites designated as pNHAs for woodland (e.g. Ardee Woods, Louth; Barmeath Castle, Louth). Restoration management, typically focused on the removal of non-native shrubs and conifers, needs to seriously address the impact of these tree species.

The highly fragmented nature of Ireland's native woodland resource is clearly demonstrated by the data. Peterken (2002) recommends that larger woodlands should be no less than 25 ha, but only 11% of surveyed sites make this threshold. For very small woods, Peterken (2002) recommends that they should be at least 3 ha in size, but 21% of surveyed sites fail to meet this criterion. Management is needed not only to improve the conservation value of existing wooded areas but to reduce fragmentation by increasing the size of existing sites. The creation of new sites should be focused on increasing connectivity in the wooded landscape. A national strategy on reducing woodland fragmentation would ensure that resources are used most effectively.

Not only are the majority of Ireland's woodlands small in extent but the analysis of adjacent land cover shows that many woodlands are isolated from other semi-natural habitats by forestry or by agricultural grassland. The conservation value of sites could be improved by linking them with other woodlands by the restoration of hedgerows and woodland re-creation, or by creating mosaics of semi-natural habitats by favourable management of adjacent land (e.g. Newbridge Demesne, Dublin). Sites which were wooded in the 1830s and 1840s have been shown to be more diverse than those established subsequently. Further research into species which may serve as indicators of these older, more diverse sites is needed. The term ancient woodland is best avoided, however; this term is used in the UK specifically to refer to sites which can be proved to be continuously wooded since the 1600s. Woods potentially originating in the early 1800s cannot be referred to as ancient.

Of the Annex I habitats, 91A0 Old sessile oak woods and 91E0 *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*, are by far the most common in Ireland, whereas habitats 91D0 *Bog woodland and 91J0 **Taxus baccata* woods of the British Isles are much rarer. The current inclusion of stands dominated by non-native or dubiously native willows (i.e. gallery woodland) under habitat 91E0 is a point of debate. Whilst these stands may be of European importance, should positive action be taken to protect them outside their natural range? What type of native vegetation would occur in these rare ecological niches and should that not be promoted? Furthermore, the most diverse grouping identified by the survey was the *Corylus avellana* – *Oxalis acetosella* vegetation type with an average of forty species per 10 m x 10 m relevé. This grouping also includes Atlantic hazelwoods, whose internationally important

lichen community has recently been noted (Viney 2008), but it is not covered by any of the current Annex I woodland habitats. Although this vegetation type was the most common in Ireland of the twenty-two identified, further research into its importance in a European context may be warranted.

The priority Annex I habitat 9180 *Tilio-Acerion forests of slopes, screes and ravines has not been formally recognised in the Republic of Ireland. It encompasses woods of *Fraxinus excelsior*, *Ulmus glabra*, *Tilia* spp. and *Acer pseudoplatanus*. In the UK, a broad interpretation of this habitat type has been employed and this category has been applied to several sites at which *Tilia* spp. and *Acer pseudoplatanus* are scarce or absent but at which *Fraxinus excelsior*, *Corylus avellana* and / or *Ulmus glabra* dominate on rocky slopes. These sites include the West Fermanagh Scarplands SAC in Northern Ireland. Using such an interpretation it is likely that examples of this habitat occur in the Republic and further investigation is required to identify these sites. Potential candidates include Drumsnavv, Galway and Slieve Carran, Clare.

4.3 Utilisation of the data set

The GIS component of the project could assist in regional woodland creation schemes by providing spatial information on the existing occurrence of woodland and woodland types in the landscape. This could assist environmental managers who wish to link up existing sites or create new woodland in largely unwooded landscapes. Reference to extant sites could provide managers with information on the typical tree species composition of local sites for particular soil types, as well as providing a seed source of local provenance, as mentioned above. A more technical application of the structural data would be the creation of modelling software which could be used to predict the long-term effects of management decisions and to investigate how natural woodland ecosystems may have functioned, an area which is poorly understood in Ireland.

As mentioned above, the NSNW dataset highlights undesignated sites which may be worthy of designation, as well as indicating presently designated sites where improved management is required. The classification provides an objective framework for classifying and mapping native woodlands, whilst the approach used would be readily applicable to other vegetation types and habitats in Ireland for which similar data are available. As such it could form a blueprint for the national Irish vegetation classification proposed by the National Biodiversity Data Centre. The inclusion of data from Northern Ireland woodlands would enable an all-Ireland classification to be produced with expanded distribution maps. The conservation and threat assessments provide a baseline for the monitoring of woodlands in general, and in tandem with the Annex I monitoring guidelines may be particularly important with reference to the maintenance of Annex I woodland habitats at favourable status. Stand structure and relevé data provide excellent baseline information for more detailed long-term scientific

studies, whilst the inventory identifies woodlands of different types across the country which could be the sites of faunal, fungal or further floral projects.

4.4 Concluding remarks

The main recommendations resulting from this survey are:

- Review undesignated sites with high conservation scores for suitability as NHAs
- Review undesignated sites with high conservation scores for suitability as Nature Reserves
- Develop a national strategy to reduce the fragmentation of Irish native woodlands
- Promote the development of semi-natural habitat complexes around isolated woodlands
- Produce a list of long-established woodland indicator species for Ireland
- Recognise the limitations of existing classification schemes and utilise the NSNW classification in the production of any future national Irish vegetation classification
- Incorporate relevé data from Northern Ireland woodlands into the dataset
- Recognise the widespread impact of beech and sycamore on native woodlands in conservation strategies and management plans
- Recognise the issue of undergrazing and the importance of livestock grazing in conservation strategies and management plans
- Research the conservation status of high-diversity Irish calcareous woodlands in a European context and recognise the importance of these stands in a national context.

The NSNW has provided a detailed account of the full breadth of Irish woodlands. Many of the woodlands surveyed are high in biodiversity, some harbouring species which are unique to Ireland or confined to a small number of countries. Stewardship of such a resource is both a privilege and a responsibility; its uniqueness and value – from a scientific, cultural and aesthetic perspective – are qualities to be appreciated and preserved for generations to come. The outputs of the NSNW will provide a much-needed resource for environmental managers, ecological researchers and policy makers to work towards the achievement of this aspiration.

Lobaria pulmonaria



Flavioparmelia caperata

Polytrichum commune



Woodland Mosses & Lichens

Sphagnum recurvum agg.



Sphagnum squarrosum

REFERENCES

- Anonymous (1981). *Areas of scientific interest in Ireland: Natural heritage inventory*. An Foras Forbartha, Dublin.
- Anonymous (2002). *National biodiversity plan*. Government of Ireland, Dublin.
- Anonymous (2006). *Assessment, monitoring and reporting under Article 17 of the Habitats Directive: explanatory notes & guidelines, Draft 2*. European Commission, DG Environment.
- Anonymous (2007a). National forestry inventory – Republic of Ireland. Forest Service, Wexford.
- Anonymous (2007b). *Interpretation manual of European Union habitats – EUR27*. European Commission, DG Environment.
- Anonymous (2007c). *Draft field methodology to assess the conservation status of dune habitats*. Unpublished Report. National Parks and Wildlife Service, Dublin.
- Belbin, L. and McDonald, C. (1993). Comparing three classification strategies for use in ecology. *Journal of Vegetation Science*, **4**, 341-348.
- Braun-Blanquet, J. & Tüxen, R. (1952). Irische Pflanzengesellschaften. In *Die Pflanzenwelt Irlands*. (ed. W. Ludi). Hans Huber, Bern.
- Browne, A., Dunne, F. and Roche, N. (2000). *A survey of broadleaf woodland in three SACs: Barrow-Nore, River Unshin and Lough Forbes*. National Parks and Wildlife Service, Dublin.
- Carey, M. (2004). The native woodland business in Co. Wicklow from the 17th century. In *Ireland's native woodlands: Proceedings of a conference held at Galway, 8-11 September, 2004* (eds. C. Doyle & D. Little). pp. 64-72. Woodlands of Ireland, Dublin.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, Erlbaum, New Jersey.
- Cross, J.R. (1981). The establishment of *Rhododendron ponticum* in the Killarney oakwoods , S.W. Ireland. *Journal of Ecology*, **69**, 807-824.
- Cross, J.R. (1982). The invasion and impact of *Rhododendron ponticum* in native Irish vegetation. In *Studies in Irish Vegetation* (ed. J. White). Royal Dublin Society, Dublin.
- Cross, J.R. (1987). Unusual stands of birch on bogs. *Irish Naturalists' Journal*, **22**, 309-310.
- Cross, J.R. (1990). Survey and selection of peat sites for conservation in the Republic of Ireland. In *Ecology and Conservation of Irish Peatlands* (ed. G.J. Doyle), pp. 175-188. Royal Irish Academy, Dublin.
- Cross, J.R. (1992). The distribution, character and conservation of woodlands on esker ridges in Ireland. *Proceedings of the Royal Irish Academy*, **92 B**, 1-19.
- Cross, J.R. (1998). An outline and map of the potential natural vegetation of Ireland. *Applied Vegetation Science*, **1**, 241-252.
- Cross, J.R. (2005). Irish native woodland classification. In *Native woodland manual*, 41-50. Forest Service, Department of Agriculture and Food, Dublin.

- Cross, J.R. (2006). The potential natural vegetation of Ireland, *Biology and Environment: Proceedings of the Royal Irish Academy*, **106B**, 65-116.
- Cross, J.R. & Kelly, D.L. (2003). Wet woodlands. In *The wetlands of Ireland* (ed. M. Otte), pp. 160-172. University College Dublin Press, Dublin.
- Currall, J.E.P. (1987). A transformation of the Domin scale. *Vegetatio*, **72**, 81-87.
- Curtis, T.G.F. & McGough, H.N. (1988). *The Irish Red Data Book: 1 Vascular Plants*, Wildlife Service Ireland, Dublin.
- Dobson F.S. (2000). *Lichens: an illustrated guide to the British and Irish species*. 4th edition. Richmond Publishing, Slough.
- Dufrene, M. & Legendre, P. (1997). Species assemblages and indicator species: the need for a flexible asymmetrical approach. *Ecological Monographs*, **67**, 345-366.
- Ellenberg, H. (1979). *Zeigerwerte von Gefäßpflanzen*, **9**, 1-22.
- Ellenberg, H. (1988). *Vegetation ecology of central Europe*. 4th edition. Cambridge University Press, Cambridge.
- Ellenberg, H., Weber, H.E., Düll, R., Wirth, V., Werner, W. & Paulissen, D. (1991). Zeigerwerte von Pflazen in Mitteleuropa. *Scripta Geobotanica*, **18**, 1-248.
- Fernandez, F., Fanning, M., McCorry, M. & Crowley, W. (2005). *Raised bog monitoring project 2004-05*. Unpublished report. National Parks & Wildlife Service, Department of Environment, Heritage and Local Government, Dublin.
- Fossitt, J. (2000). *A guide to habitats in Ireland*. The Heritage Council, Kilkenny.
- Gallagher, G., Dunne, S., Jordan, P., & Stanley, B. (2001). *Ireland's forest inventory and planning system*. Department of the Marine and Natural Resources, Wexford.
- Gardiner, M.J. & Radford, T. (1980). Soil associations of Ireland and their landuse potential. *Soil Survey Bulletin*, **36**.
- Higgins, G.T., Martin, J.R. & Perrin, P.M. (2004). *National survey of native woodland in Ireland: interim report*. Unpublished report, National Parks and Wildlife Service, Dublin.
- Hill, M.O., Mountford, J.O., Roy, D.B., & Bunce, R.G.H. (1999). *Ecofact 2a, Technical annex – Ellenberg's indicator values for British plants*. Centre for Ecology and Hydrology, Huntingdon.
- JNCC (2004). *UK guidance on conservation objectives for monitoring designated sites*. Joint Nature Conservation Committee Report, Peterborough.
- Jörg, E. (2003). A critique of phytosociology. *Journal of Vegetation Science*, **14**, 291-296.
- Joyce, P.M. (1998). *Growing broadleaves in Ireland*. COFORD, Dublin.
- Kelleher, C.T., Kelly, D.L. & Hodkinson T.R. (2004). Species status, hybridization and geographic distribution of Irish populations of *Quercus petraea* (Matt.) Liebl. and *Q. robur* L. *Watsonia*, **25**: 83-97(2004).
- Kelly, D.L. (1981). The native forest vegetation of Killarney, South-West Ireland: an ecological account. *Journal of Ecology*, **69**, 437-472.
- Kelly, D.L. (2005). Woodland on the western fringe: Irish oakwood diversity and the challenges of conservation. *Botanical Journal of Scotland*, **57**, 21-40.

- Kelly, D.L. & Iremonger, S.F. (1997). Irish wetland woods: the plant communities and their ecology. *Biology and Environment: Proceedings of the Royal Irish Academy*, **97B**, 1-32.
- Kelly, D.L. & Kirby, E.N. (1982). Irish native woodlands over limestone. *Journal of Life Science of the Royal Dublin Society*, **3**, 181-198.
- Kelly, D. & Moore, J.J. (1975). A preliminary sketch of the Irish acidophilous oakwoods. In *Colloques Phytosociologiques III: La végétation des forêts caducifoliées acidiphiles*. Lille – 1974. (ed. J.-M. Géhu). pp. 375-387. Kramer, Vaduz.
- Kent, M. & Coker, P. (1992). *Vegetation description and analysis. A practical approach*. Belhaven Press, London.
- Kirby, K.J. (1988). *A woodland survey handbook No.11*. Nature Conservancy Council, Peterborough.
- Lance, G.N. and Williams, W.T. (1967). A general theory of classification sorting strategies. II. Clustering strategies, *Computer Journal* **10**, 271-277.
- Legendre, P. & Legendre, L. (1998). *Numerical ecology*. 2nd edition. Elsevier, Amsterdam.
- Martin, J.R., Higgins, G.T. & Perrin, P.M. (2005). A national survey of native woodland in Ireland: Using the 2003 data to evaluate the conservation status of sites. In *Ireland's native woodlands: Proceedings of a conference held at Galway, 8-11 September, 2004* (eds. C. Doyle & D. Little). pp. 127-135. Woodlands of Ireland, Dublin.
- McCune, B. and Grace, J.B. (2002). *Analysis of ecological communities*. MjM Software Design, Oregon.
- Meikle, R.D. (1984). *Willows and poplars of Great Britain and Ireland: BSBI handbook no. 4*, Botanical Society of the British Isles, London.
- Minchin, P.R. (1987). An evaluation of the relative robustness of techniques for ecological ordination. *Vegetatio*, **69**, 89-107.
- Mitchell, F.J.G. & Kirby, K. (1990). The impact of large herbivores on the conservation of semi-natural woods in the British uplands. *Forestry*, **63**, 333-353.
- Neff, M. (1974). Woodland conservation in the Republic of Ireland. In *Colloques Phytosociologiques III: La végétation des forêts caducifoliées acidiphiles*. Lille – 1974. (ed. J.-M. Géhu). pp. 275-285. Kramer, Vaduz.
- Neville, P. (2002). *An assessment of biodiversity in European forests*. A contribution by the European Commission and ICP Forests. Working Group on Biodiversity Assessment in Forests.
- O'Flanagan, L.P. (1973). *Inventory of woodlands of the Forest and Wildlife Service*. Stationery Office, Dublin.
- Paton, J.A. (1999). *The liverwort flora of the British Isles*. Harley Books, Colchester.
- Perrin, P.M. (2002). *The ecology of yew (Taxus baccata) in Ireland*. PhD thesis, Botany Department, Trinity College Dublin, Dublin.
- Perrin P.M., Kelly D.L. and Mitchell F.J.G (2006a). Long-term deer exclusion in yew-wood and oakwood habitats in southwest Ireland: Natural regeneration and stand dynamics. *Forest Ecology and Management*, **236**, 356–367.

- Perrin, P.M., Barron, S.J. & Martin, J.R. (2006b). *National Survey of Native Woodlands in Ireland: Second Phase Report*. Report submitted to National Parks & Wildlife Service, Dublin.
- Perrin, P.M., Martin, J.R., Barron, S.J. & Roche, J.R. (2006c). A cluster analysis approach to classifying Irish native woodlands, *Biology and Environment: Proceedings of the Royal Irish Academy*, **106B**, 261-275.
- Peterken, G. (2002). *Reversing the habitat fragmentation of British woodlands*. WWF-UK. London.
- Purcell, T.J. (1979). *Inventory of private woodlands, 1973*. Forest and Wildlife Service. Stationery Office, Dublin.
- Ratcliffe, D. (1977). *A nature conservation review Volume 1*. Cambridge University Press, Cambridge.
- Raunkier, C. (1934). *The life forms of plants and statistical plant geography*. Clarendon Press, Oxford.
- Rodwell, J.S. (1991). *British plant communities Volume 1: woodlands and scrub*. Cambridge University Press, Cambridge.
- Smith, A.J.E. (2004). *The moss flora of Britain and Ireland*. 2nd edition. Cambridge University Press, Cambridge.
- Stace, C. (1997). *New flora of the British Isles*. 2nd edition. Cambridge University Press, Cambridge.
- van der Sleesen, S. & Poole, A. (2002). *Inventory of semi-natural woodlands in the eastern part of County Offaly, Ireland: a pilot study for the national inventory of native woodlands*. Research Branch, Dúchas the Heritage Service, Dublin.
- Viney, M. (2008). Lichenologists rolling up to gather our moss. *Irish Times*, 12th January 2008
- Webb, D.A., Parnell, J. & Doogue, D. (1996). *An Irish flora*, Dundalgan Press, Dundalk.

TECHNICAL ADDENDUM: Annex I woodland habitat monitoring guidelines

For each Annex I habitat assessment three parameters are scored: area, structure and functions, and future prospects. For a habitat at a site to be given an overall assessment of favourable the habitat must be assessed as favourable within each of the three assessment parameters (Table A1).

Table A1. Summary matrix of the parameters and conditions required to assess the conservation status of habitats (Anon. 2006).

	Favourable	Unfavourable – Inadequate	Unfavourable - Bad
Area	Stable	>0% <1% decline/year	≥ 1% decline/year
Structure and functions	Stable	1 – 25% decline/failure	> 25% decline/failure
Future prospects	Good	Poor	Bad
Overall	All green	Combination of green and amber	One or more red

Area

Changes in extent should be assessed by comparing the area of the Annex I woodland habitat that is mapped during the survey with the mapped extent of the habitat present in previous surveys, or if this is the first survey on the 2000 aerial photograph. Changes can be quantified using GIS software.

Structure and functions

Structure and function should be assessed using a number of factors including:

- positive indicator species
- negative indicator species
- structural data (e.g. total canopy cover)
- tree regeneration data
- presence of old and senescing trees
- presence of dead wood

Positive and negative indicator species and the threshold values for other factors vary by habitat type. The assessment criteria that should be utilised for monitoring habitats 91A0, 91D0, 91E0 and 91J0 are presented in Tables A2-A5 respectively. Threshold values are based on data from the NSNW, the conservation status assessment reports on Annex I habitats in Ireland from 2007, and JNCC (2004). The bases of the lists of positive indicator species are shown in Tables A6-A9. Note that *Hedera helix*, *Dryopteris dilatata* and *Rubus*

fruticosus are important components in most of the Annex I woodland habitats. However, due to their very high frequency in native Irish woodland they were deemed to be of low discriminating value.

Future prospects

The method for assessing future prospects is development from that proposed in Martin *et al.* (2007). Fourteen categories are used to calculate the overall future prospects for an area of Annex I habitat. The scoring system for each of these categories is listed in Table A10. The importance of each category should be assessed and given a score ranging from 0 to -3 (for negative categories) and 0 to 3 (for positive categories). These values correspond to the impact levels of none, low, medium and high (active and immediate) proposed in the Natura 2000 Standard form explanatory notes. Where possible the percentage of the surface area of the Annex I habitat affected by each category should also be estimated. Ten of the categories represented negative impacts and activities: drainage, burning, dumping, inappropriate felling, active quarries, undergrazing, overgrazing, artificial planting, non-native tree species and invasive shrub species. The final four categories represent protection and enhancement of an Annex I woodland: designated site status, occurrence of notable species and appropriate native planting within and adjacent to the site. Notable species are those listed on the Flora Protection Order, 1999 or in the Irish Red Data Book (Curtis & McGough 1988). Any additional negative or positive activities that are recorded during the survey should also be recorded in the same way, utilising the codes listed within Appendix E of the Natura 2000 standard form explanatory notes.

Fieldwork

Fieldwork for the assessment should be based on a structured walk through the Annex I woodland habitat with a series of monitoring stops along the way. On an appropriate scale map (usually 1:10,000) a route should be marked that gives a reasonable coverage of the area to be assessed, taking account of any known variability, and any areas under high risk of change. If a site contains more than one Annex I woodland habitat, each habitat should be approached separately with its own route and monitoring stops.

Within limits imposed by health and safety considerations the route should not be confined to paths but should go through the centre of stands and across contours. Allow a day on site for areas up to 20 ha; larger areas or those on difficult terrain may need more than a day to be assessed.

The simplest approach to ensuring systematic coverage is to mark 4, 8, 12 or 16 monitoring stops on a map, depending on the area to be covered, ensuring the stops are evenly spaced and cover any expected variation. Each stop will be a 20 m x 20 m relevé. These stops will be the main assessment points, but the state of the Annex I habitat between the stops should be considered as well. Do not be too constrained by the route or precise position of the stops if

minor deviations will provide a better picture of the Annex I habitat. However, do record any major variations in the route. At each stop the data required on the appropriate structure and functions assessment sheet should be collected. It is not essential that all the same points will be re-surveyed on future visits, but there should be some overlap, with 50% overlap recommended. If there are stops that raised concerns previously these should be included in subsequent visits. As part of the monitoring visit the surveyor should map the total extent of the Annex I habitat using a mobile mapper GPS if available. Where the Annex I habitat forms part of a larger woodland site this should also be walked to collect data on negative impacts required to assess future prospects.

Overall assessment

At the end of each site visit, each attribute of the Annex I woodland habitat that you have covered should be reviewed. Ideally all applicable targets will have been met, but some targets may not have been. For these, consider how significant the missed targets are and what the cause of the failure was. It should be noted that some targets have relatively arbitrary thresholds and there is not a sudden change in condition at the threshold point. Just missing a threshold is less significant than knowing whether the trend is up or down, and what factors are influencing that trend. If the reason for a target not being met is some unforeseen natural event or a temporary management glitch that is being rectified, this may be less serious than if the failure were due to more deliberate actions.

The assessment should be made on the attributes recorded. If for some reason some targets cannot be considered (wrong season or inadequate expertise) then a provisional overall assessment should be made on the basis of the targets that were assessed. A judgement will then be needed as to when the missing targets will be picked up.

At the end of the assessment process each of the three criteria of area, structure and functions, and future prospects must be assessed for the area of Annex I woodland habitat that has been surveyed. For any of the three criteria it is important that an assessment of unfavourable is accompanied by notes as to how this could be remedied. For woodlands whose status has been assessed as favourable, trends that have been observed which could threaten the woodland in the future should be highlighted before they adversely affect the Annex I woodland habitat.

Table A2. 91A0 Old Sessile Oak Woods structure and functions assessment criteria

Indicator species and criteria to be scored at each 20 m x 20m assessment stop

Positive indicator species	✓	Positive indicator species	✓
Trees & woody species <i>Betula pubescens</i> <i>Corylus avellana</i> <i>Ilex aquifolium</i> <i>Lonicera periclymenum</i> <i>Quercus petraea</i> <i>Sorbus aucuparia</i> <i>Vaccinium myrtillus</i>		Mosses & liverworts (Cont.) <i>Kindbergia praelonga</i> <i>Mnium hornum</i> <i>Plagiothecium undulatum</i> <i>Polytrichastrum formosum</i> <i>Pseudotaxiphyllum elegans</i> <i>Rhytidiadelphus loreus</i> <i>Saccogyna viticulosa</i>	
Herbs & ferns <i>Blechnum spicant</i> <i>Luzula sylvatica</i> <i>Oxalis acetosella</i> <i>Polypodium vulgare</i>		Negative indicator species	✓
Mosses & liverworts <i>Calypogeia muellerana</i> <i>Dicranum scoparium</i> <i>Scapania gracilis</i> <i>Thuidium tamariscinum</i> <i>Diplophyllum albicans</i> <i>Eurhynchium striatum</i> <i>Hylocomium brevirostre</i> <i>Hypnum cupressiforme</i> <i>Hypnum jutlandicum</i> <i>Isoetecium myosuroides</i>		Non-native tree species <i>Acer pseudoplatanus</i> <i>Fagus sylvatica</i> Non-native conifer species Other: Non-native shrub species <i>Cotoneaster</i> spp. <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i> <i>Symphoricarpos albus</i> Other:	
Pass = <i>Quercus petraea</i> or <i>Q. x rosacea</i> plus ≥6 of the other listed species present		Pass = No negative indicator species recorded	
Other stop data	✓	Structural data	✓
Evidence of bark stripping (present = fail) % bryophyte cover (pass = ≥4%)		Median canopy height >11m Total canopy cover >30% of plot <i>Q. petraea</i> or <i>Q. x rosacea</i> >50% of canopy Total shrub layer cover 10-50% Field layer ≥ 20% cover and ≥20 cm high	
		Pass = all five criteria met	

Criteria to be assessed at a habitat or multiple stop level

Target tree species dbh	Old trees and dead wood
No. of young stems 7-19cm dbh No. of stems 20-40cm dbh No. of mature stems >40cm dbh	No. of old/senescing trees >30cm dbh No. of standing dead trees >30cm dbh No. fallen dead trees >30cm dbh
Pass = Over all stops each size class represents ≥ 20% of total stems	Pass = 1+ old/senescing tree in ≥ 25% of stops and 4+ standing dead trees/ha and 3+ fallen dead trees/ha
Target tree species regeneration	Native tree species regeneration
Pass = 1+ target sapling >2m tall present in Annex I habitat (<i>only assess if canopy gaps occur</i>)	Pass = 1+ native sapling >2m tall present in ≥50% of plots
Target tree species = <i>Quercus petraea</i> and <i>Quercus x rosacea</i>	

Table A3. *91D0 Bog woodland structure and functions assessment criteria

Indicator species and criteria to be scored at each 20 m x 20m assessment stop

Positive indicator species	✓	Negative indicator species	✓
<p>Trees & woody species</p> <p><i>Betula pubescens</i></p> <p><i>Salix cinerea</i></p> <p>Herbs & ferns</p> <p><i>Anthoxanthum odoratum</i></p> <p><i>Blechnum spicant</i></p> <p><i>Carex echinata</i></p> <p><i>Juncus effusus</i></p> <p><i>Molinia caerulea</i></p> <p><i>Potentilla erecta</i></p> <p>Mosses & liverworts</p> <p><i>Hypnum cupressiforme</i></p> <p><i>Kindbergia praelonga</i></p> <p><i>Mnium hornum</i></p> <p><i>Polytrichum commune</i></p> <p><i>Sphagnum</i> spp.</p> <p><i>Thuidium tamariscinum</i></p> <p><i>Ulota bruchii</i> / <i>Ulota crispa</i></p>		<p>Non-native tree species</p> <p><i>Acer pseudoplatanus</i></p> <p><i>Fagus sylvatica</i></p> <p>Non-native conifer species</p> <p>Other:</p> <p>Non-native shrub species</p> <p><i>Cotoneaster</i> spp.</p> <p><i>Prunus laurocerasus</i></p> <p><i>Rhododendron</i> spp.</p> <p><i>Symphoricarpos</i> spp.</p> <p><i>Cornus sericea</i></p> <p>Other:</p>	
Pass = <i>Betula pubescens</i> , <i>Sphagnum</i> spp. plus ≥5 of the other listed species present		Pass = No negative indicator species recorded	
Other stop data		Structural data	
		Median canopy height >5m	
		Total canopy cover >30% of plot	
		<i>Betula pubescens</i> >50% of canopy	
		Total shrub layer cover 10-50%	
		Field layer ≥20% cover and ≥ 20 cm high	
Evidence of bark stripping (present = fail)		Pass = all five criteria met	
% <i>Sphagnum</i> spp. cover (pass = ≥10%)			

Criteria to be assessed at a habitat or multiple stop level

Target tree species dbh	Old trees and dead wood
No. of young stems 7-14cm dbh	No. of old/senescing trees >20cm dbh
No. of stems 15-30cm dbh	No. of standing dead trees >20cm dbh
No. of mature stems >30cm dbh	No. fallen dead trees >20cm dbh
Pass = Over all stops each size class represents ≥ 20% of total stems	Pass = 1+ old/senescing tree in ≥ 25% of stops and 4+ standing dead trees/ha and 3+ fallen dead trees/ha
Target tree species regeneration	Native tree species regeneration
Pass = 1+ target sapling >2m tall present in Annex I habitat	Pass = 1+ native sapling >2m tall present in ≥50% of plots
Target tree species = <i>Betula pubescens</i>	

Table A4. 91E0 *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* structure and functions assessment criteria

Indicator species and criteria to be scored at each 20 m x 20m assessment stop

Positive indicator species	✓	Negative indicator species	✓
<p>Trees & woody species</p> <p><i>Alnus glutinosa</i> <i>Betula pubescens</i> <i>Crataegus monogyna</i> <i>Fraxinus excelsior</i> <i>Salix cinerea</i></p> <p>Herbs & ferns</p> <p><i>Agrostis stolonifera</i> <i>Angelica sylvestris</i> <i>Filipendula ulmaria</i> <i>Galium palustre</i> <i>Iris pseudacorus</i> <i>Mentha aquatica</i> <i>Phalaris arundinacea</i> <i>Rumex sanguineus</i> <i>Urtica dioica</i></p> <p>Mosses & liverworts</p> <p><i>Calliergonella cuspidata</i> <i>Hypnum cupressiforme</i> <i>Kindbergia praelonga</i> <i>Ulota bruchii</i> <i>Ulota crispa</i></p>		<p>Non-native tree species</p> <p><i>Acer pseudoplatanus</i> <i>Fagus sylvatica</i> Non-native conifer spp. Other:</p> <p>Non-native shrub species</p> <p><i>Cotoneaster</i> spp. <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i> <i>Symphoricarpos albus</i> <i>Cornus sericea</i> Other:</p>	
Pass = <i>F. excelsior</i> / <i>Alnus glutinosa</i> / <i>S. cinerea</i> plus ≥6 of the listed species present		Pass = No negative indicator species recorded	
Other stop data		Structural data	
Evidence of bark stripping (present = fail) % bryophyte cover (pass = >4%)		<p>Median canopy height >7m Total canopy cover >30% of plot Target species >50% of canopy Total shrub layer cover 10-50% Field layer ≥20% cover and ≥ 20 cm high</p>	✓
		Pass = all five criteria met	

Criteria to be assessed at a habitat or multiple stop level

Target tree species dbh		Old trees and dead wood		
No. of young stems 7-19cm dbh		No. of old/senescing trees >30cm dbh		
No. of stems 20-40cm dbh		No. of standing dead trees >30cm dbh		
No. of mature stems >40cm dbh		No. fallen dead trees >30cm dbh		
Pass = Over all stops each size class represents ≥ 20% of total stems		Pass = 1+ old/senescing tree in ≥ 25% of stops and 4+ standing dead trees/ha and 3+ fallen dead trees/ha		
		Native tree species regeneration		
		Pass = 1+ native sapling >2m tall present in ≥50% of plots		
Target tree species = <i>F. excelsior</i> or <i>A. glutinosa</i> or <i>S. cinerea</i>				

Table A5. 91J0 **Taxus baccata* woods of the British Isles structure and functions assessment criteria

Indicator species and criteria to be scored at each 20 m x 20m assessment stop

Positive indicator species		✓	Positive indicator species		✓
Trees & woody species			Mosses & liverworts (Cont.)		
<i>Corylus avellana</i>			<i>Neckera crispa</i>		
<i>Ilex aquifolium</i>			<i>Plagiochila asplenoides</i>		
<i>Lonicera periclymanum</i>			<i>Plagiomnium undulatum</i>		
<i>Taxus baccata</i>			<i>Rhynchostegiella tenella</i>		
Herbs & ferns			<i>Rhytidiadelphus triquetrus</i>		
<i>Brachypodium sylvaticum</i>			<i>Thamnobryum alopecurum</i>		
<i>Carex flacca</i>			<i>Thuidium tamarascinum</i>		
<i>Hypericum pulchrum</i>			<i>Tortella tortuosa</i>		
<i>Phyllitis scolopendrium</i>					
<i>Viola riviniana / reichenbachiana</i>					
Mosses & liverworts					
<i>Ctenidium molluscum</i>					
<i>Eurhynchium striatum</i>					
<i>Fissidens dubius</i>					
<i>Frullania tamariscinum</i>					
<i>Hypnum cupressiforme</i>					
<i>Isothecium alopecuroides</i>					
<i>Isothecium myosuroides</i>					
<i>Loeskeobryum brevirostre</i>					
<i>Marchesinia mackaii</i>					
<i>Metzgeria furcata</i>					
<i>Neckera complanata</i>					
Pass = <i>Taxus baccata</i> plus ≥6 of listed species present				Pass = No negative indicator species recorded	

Criteria to be assessed at a habitat or multiple stop level

Target tree species dbh	Old trees and dead wood
No. of young stems 7-19cm dbh No. of stems 20-40cm dbh No. of mature stems >40cm dbh	No. of old/senescing trees >30cm dbh No. of standing dead trees >30cm dbh No. fallen dead trees >30cm dbh
Pass = Over all stops each size class represents ≥ 20% of total stems	Pass = 1+ old/senescing tree in ≥ 25% of stops and 4+ standing dead trees/ha and 3+ fallen dead trees/ha
Target tree species regeneration	Native tree species regeneration
Pass = 1+ target sapling >2m tall present (open areas adjacent to the Annex I habitat should be included)	Pass = 1+ native sapling >2m tall present in ≥50% of plots
Target tree species = <i>Taxus baccata</i>	

Table A6. Typical species for habitat 91A0 Old sessile oak woods in Ireland. Data are from: NSNW ¹, Kelly & Moore (1975) ².

	Frequent <i>Rubus</i> – <i>Corylus</i> vegetation type species (>60%) ¹	Frequent <i>Ilex</i> – <i>Vaccinium</i> vegetation type species (>60%) ¹	Frequent <i>Luzula</i> – <i>Dryopteris</i> vegetation type species (>60%) ¹	Frequent <i>scapanietosum</i> subassociation species (>80%) ²
<i>Betula pubescens</i>		*		
<i>Blechnum spicant</i>	*	*	*	*
<i>Calypogeia muelleriana</i>				*
<i>Corylus avellana</i>	*		*	
<i>Dicranum scoparium</i>				*
<i>Diplophyllum albicans</i>				*
<i>Dryopteris dilatata</i>	*	*	*	
<i>Eurhynchium striatum</i>	*			
<i>Hedera helix</i>	*	*	*	*
<i>Loeskeobryum brevirostre</i>				*
<i>Hypnum cupressiforme</i>		*	*	
<i>Hypnum jutlandicum</i>				*
<i>Ilex aquifolium</i>	*	*	*	*
<i>Isoetecium myosuroides</i>	*	*	*	*
<i>Kindbergia praelonga</i>	*		*	*
<i>Lonicera periclymenum</i>	*	*	*	
<i>Luzula sylvatica</i>			*	*
<i>Mnium hornum</i>				*
<i>Oxalis acetosella</i>	*	*		
<i>Plagiothecium undulatum</i>				*
<i>Polypodium vulgare</i>			*	
<i>Polytrichastrum formosum</i>		*		*
<i>Pseudotaxiphyllum elegans</i>				*
<i>Quercus petraea</i>	*	*	*	*
<i>Rhytidiadelphus loreus</i>				*
<i>Rubus fruticosus</i>	*	*	*	
<i>Saccogyna viticulosa</i>				*
<i>Scapania gracilis</i>				*
<i>Sorbus aucuparia</i>		*		
<i>Thuidium tamariscinum</i>	*	*	*	*
<i>Vaccinium myrtillus</i>		*		*

Table A7. Typical species in Ireland for habitat 91D0 *Bog woodlands. Data are from Kelly & Iremonger (1997)¹ and NSNW²

	Frequent <i>Sphagnum palustre</i> – <i>Betula pubescens</i> species (>60%) ¹	Frequent <i>Molinia caerulea</i> – <i>Potentilla erecta</i> vegetation type species (>60%) ²
<i>Anthoxanthum odoratum</i>	*	
<i>Betula pubescens</i>	*	*
<i>Blechnum spicant</i>	*	
<i>Carex echinata</i>	*	
<i>Hypnum cupressiforme</i>		*
<i>Juncus effusus</i>	*	*
<i>Kindbergia praelonga</i>		*
<i>Mnium hornum</i>	*	
<i>Molinia caerulea</i>	*	*
<i>Polytrichum commune</i>	*	
<i>Potentilla erecta</i>		*
<i>Salix cinerea</i>		*
<i>Sphagnum</i> spp.	*	*
<i>Thuidium tamariscinum</i>	*	*
<i>Ulotia bruchii</i> / <i>U. crispa</i>		*

Table A8. Typical species for 91E0 *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* habitat in Ireland. Columns represent vegetation types defined by the NSNW. Asterisk indicates species occurred in >60% of plots for that vegetation type.

	<i>Fraxinus excelsior</i> – <i>Carex remota</i>	<i>Rubus fruticosus</i> – <i>Agrostis stolonifera</i>	<i>Salix cinerea</i> – <i>Equisetum fluviatile</i>	<i>Betula pubescens</i> – <i>Mentha aquatica</i>	<i>Salix triandra</i> – <i>Urtica dioica</i>
<i>Agrostis stolonifera</i>		*			
<i>Alnus glutinosa</i>	*	*		*	
<i>Angelica sylvestris</i>				*	
<i>Betula pubescens</i>				*	
<i>Calliergonella cuspidata</i>				*	
<i>Crataegus monogyna</i>	*			*	
<i>Dryopteris dilatata</i>	*	*			
<i>Filipendula ulmaria</i>	*	*	*	*	*
<i>Fraxinus excelsior</i>	*	*	*	*	
<i>Galium palustre</i>		*	*	*	
<i>Hedera helix</i>	*	*	*	*	*
<i>Hypnum cupressiforme</i>		*	*		
<i>Iris pseudacorus</i>				*	
<i>Kindbergia praelonga</i>	*	*	*	*	
<i>Mentha aquatica</i>				*	
<i>Phalaris arundinacea</i>				*	
<i>Rubus fruticosus</i>	*	*	*	*	
<i>Rumex sanguineus</i>					*
<i>Salix cinerea</i>	*	*	*	*	
<i>Ulotia bruchii</i> / <i>U. crispa</i>				*	
<i>Urtica dioica</i>					*

Table A9. Typical species in Ireland for habitat 91J0 **Taxus baccata* woods of the British Isles. Data are from Kelly (1981)¹ and NSNW²

	Frequent species (>70%) <i>Reenadinna Wood</i> ¹	Indicator species for <i>Taxus baccata</i> – <i>Carex flacca</i> vegetation type ²
<i>Brachypodium sylvaticum</i>	*	*
<i>Carex flacca</i>		*
<i>Corylus avellana</i>	*	
<i>Ctenidium molluscum</i>	*	*
<i>Eurhynchium striatum</i>	*	
<i>Fissidens dubius</i>		*
<i>Frullania tamariscinum</i>		*
<i>Hedera helix</i>	*	
<i>Hypericum pulchrum</i>		*
<i>Hypnum cupressiforme</i>	*	
<i>Ilex aquifolium</i>	*	
<i>Isothecium alopecuroides</i>	*	
<i>Isothecium myosuroides</i>	*	*
<i>Loeskeobryum brevirostre</i>	*	
<i>Lonicera periclymenum</i>	*	
<i>Marchesinia mackaii</i>	*	
<i>Metzgeria furcata</i>		*
<i>Neckera complanata</i>	*	*
<i>Neckera crispa</i>		*
<i>Phyllitis scolopendrium</i>	*	
<i>Plagiochila asplenioides</i>	*	
<i>Plagiomnium undulatum</i>	*	
<i>Rhynchostegiella tenella</i>	*	
<i>Rhytidiadelphus triquetrus</i>	*	
<i>Rubus fruticosus</i>	*	
<i>Taxus baccata</i>	*	*
<i>Thamnobryum alopecurum</i>	*	*
<i>Thuidium tamarascinum</i>	*	
<i>Tortella tortuosa</i>	*	
<i>Viola riviniana</i> / <i>V. reichenbachiana</i>	*	

Table A10. Negative and positive categories for the assessment of future prospects

Negative impacts and activities categories

Drainage (Code 810)

Level	Description	Score	% of area
0	None recorded		
-1	Drainage recorded within site but not near Annex I habitat		
-2	Drainage recorded adjacent to Annex I habitat		
-3	Drainage within Annex I habitat		

Burning (Code 180)

Level	Description	Score	% of area
0	None recorded		
-1	Minor scorch marks (e.g. from campfire)		
-2	Localised fires which have scorched surrounding vegetation		
-3	Widespread fires which have burnt large areas of woodland		

Dumping (Code 750)

Level	Description	Score	% of area
0	None recorded		
-1	Dumping recorded within site but not near Annex I habitat		
-2	Dumping recorded adjacent to Annex I habitat		
-3	Dumping within Annex I habitat		

Active quarries (Code 301)

Level	Description	Score	% of area
0	None recorded		
-1	Small to medium sized quarry used sporadically by landowners for infill or maintenance recorded adjacent to a woodland site		
-2	Large quarry actively used for commercial purposes recorded adjacent to a woodland site		
-3	Quarry of any size recorded within a woodland site, or a quarry that has infringed on a woodland site within the last 10 years		

Inappropriate felling of native tree species (Code 164)¹

Level	Description	Score	% of area
0	None recorded		
-1	Felling recorded within site but not near Annex I habitat		
-2	Felling recorded adjacent to Annex I habitat		
-3	Felling recorded within Annex I habitat		

Recent inappropriate planting (Code 162)²

Level	Description	Score	% of area
0	None recorded		
-1	Inappropriate planting recorded within a site but not near Annex I habitat		
-2	Inappropriate planting recorded adjacent to Annex I habitat		
-3	Inappropriate planting within Annex I habitat		

Invasive shrub species (Code 954)

Level	Description	Score	% of area
0	None recorded		
-1	Invasive shrub species are rare or occasional within non-Annex I sections of the site		
-2	Invasive shrub species are frequent or abundant within non-Annex I sections of the site		
-3	Invasive shrub species recorded within Annex I habitat		

¹ Appropriate felling includes works conducted as part of positive management practices e.g. coppicing, continuous cover forestry. Inappropriate felling includes clearance for agriculture or development, timber poaching etc.

² Non-native or native trees.

Evidence of undergrazing (Code 140)

Level	Description	Score	% of area
0	None recorded		
-1	Low woody plants / shrub layer dense enough to make movement through non-Annex I sections of the site difficult in places		
-2	Low woody plants / shrub layer dense enough to make movement through non-Annex I sections of the site difficult for the majority of the site		
-3	Low woody plants / shrub layer dense enough to make movement through Annex I sections of the site difficult in places		

Evidence of overgrazing (Code 140)³

Level	Description	Score	% of area
0	None recorded		
-1	Overgrazing recorded for some non-Annex I sections of the site		
-2	Overgrazing recorded over majority of non-Annex I sections of the site		
-3	Overgrazing recorded within the Annex I habitat		

Non-native tree species (Code 954)⁴

Level	Description	Score	% of area
0	None recorded		
-1	Non-native tree species are rare or occasional within non-Annex I sections of the site		
-2	Non-native tree species are frequent or abundant within non-Annex I sections of the site		
-3	Non-native tree species recorded within Annex I habitat		

Positive conservation categories**Notable species**

Level	Description	Score
0	None recorded	
1	Species listed in Red Data Book recorded on site	
2	Species listed under Flora Protection Order recorded on site	
3	Both Red Data Book and Flora Protection Order species recorded on the site	

Designated site status

Level	Description	Score
0	None recorded	
1	Annex habitat within NHA boundary	
2	Annex habitat within SAC boundary	
3	Annex habitat within National Park or NPWS managed Nature Reserve	

Recent native planting within site⁵

Level	Description	Score
0	None recorded	
1	Appropriate planting of native species rare or occasional but not within Annex I habitat	
2	Appropriate planting of native species frequent but not within Annex I habitat	
3	Appropriate planting of native species within Annex I habitat	

Recent native planting adjacent to site⁵

Level	Description	Score
0	None recorded	
1	Appropriate planting of native species adjacent to site, up to 1 ha in extent	
2	Appropriate planting of native species adjacent to site, 1-5 ha in extent	
3	Appropriate planting of native species adjacent to site, over 5 ha in extent	

Overall score = ≥ 0, status is Favourable

Overall score = -1 to -9, status is Unfavourable Inadequate

Overall score = ≤ -10, status is Unfavourable Bad

³ Overgrazing indicated by: shrub layer severely checked/lacking, field layer generally <20 cm, tree regeneration rare/confined to safe sites, some bare soil/poaching visible

⁴ Mature non-native trees and young non-native trees resulting from natural dispersal

⁵ Appropriate planting comprises planting of native species characteristic of the habitat in suitable proportions, using local Irish provenance seed sources in situations where it is required to improve the conservation status of the habitat.

APPENDIX 1: NATIVE STATUS OF TREES IN IRELAND

Follows Meikle (1984) for willows and Webb *et al.* (1996) for other species.

* indicates where status is questionable

Native species	Common Name	Non-native species	Common Name
<i>Alnus glutinosa</i>	Alder	<i>Abies alba</i>	European silver-fir
<i>Arbutus unedo</i>	Strawberry	<i>Abies nordmanniana</i>	Caucasian fir
<i>Betula pendula</i>	Silver birch	<i>Abies procera</i>	Noble fir
<i>Betula pubescens</i>	Downy birch	<i>Acer campestre</i>	Field maple
<i>Corylus avellana</i>	Hazel	<i>Acer platanoides</i>	Norway maple
<i>Crataegus monogyna</i>	Hawthorn	<i>Acer pseudoplatanus</i>	Sycamore
<i>Euonymus europaeus</i>	Spindle-tree	<i>Aesculus hippocastanum</i>	Horse-chestnut
<i>Frangula alnus</i>	Alder buckthorn	<i>Alnus incana</i>	Grey alder
<i>Fraxinus excelsior</i>	Ash	<i>Carpinus betulus</i>	Hornbeam
<i>Ilex aquifolium</i>	Holly	<i>Castanea sativa</i>	Sweet chestnut
<i>Malus sylvestris</i>	Crab apple	<i>Chamaecyparis lawsoniana</i>	Lawson's cypress
<i>Populus nigra</i> ssp. <i>betulifolia</i>	Black poplar	<i>Fagus sylvatica</i>	Beech
<i>Populus tremula</i>	Aspen	<i>Larix decidua</i>	European larch
<i>Prunus avium</i>	Wild cherry	<i>Larix kaempferi</i>	Japanese larch
<i>Prunus padus</i>	Bird cherry	<i>Picea abies</i>	Norway spruce
<i>Prunus spinosa</i>	Blackthorn	<i>Picea sitchensis</i>	Sitka spruce
<i>Quercus petraea</i>	Sessile oak	<i>Pinus contorta</i>	Lodgepole pine
<i>Quercus petraea</i> x <i>Q. robur</i>	-	<i>Pinus sylvestris</i>	Scots pine
<i>Quercus robur</i>	Pedunculate oak	<i>Populus deltoides</i> x <i>P. nigra</i>	Hybrid black poplar
<i>Rhamnus cathartica</i>	Buckthorn	<i>Populus nigra</i> var. " <i>Italica</i> "	Lombardy
<i>Salix aurita</i>	Eared willow	<i>Prunus laurocerasus</i>	Cherry laurel
<i>Salix aurita</i> x <i>S. cinerea</i>	-	<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Salix caprea</i>	Goat willow	<i>Quercus cerris</i>	Turkey oak
<i>Salix cinerea</i>	Grey willow	<i>Quercus ilex</i>	Evergreen oak
<i>Salix pentandra</i>	Bay willow	<i>Quercus rubra</i>	Red oak
<i>Salix purpurea</i> *	Purple osier	<i>Salix alba</i> *	White willow
<i>Sambucus nigra</i>	Elder	<i>Salix caprea</i> x <i>S. viminalis</i>	-
<i>Sorbus aucuparia</i>	Rowan	<i>Salix fragilis</i> *	Crack willow
<i>Sorbus devoniensis</i>	French hales	<i>Salix triandra</i>	Almond-leaved willow
<i>Sorbus hibernica</i>	Irish whitebeam	<i>Salix viminalis</i> *	Osier
<i>Taxus baccata</i>	Yew	<i>Sequoia sempervirens</i>	Coastal redwood
<i>Ulmus glabra</i>	Wych elm	<i>Sorbus aria</i>	Whitebeam
<i>Viburnum opulus</i>	Guelder-rose	<i>Tilia cordata</i>	Small-leaved lime
		<i>Tilia cordata</i> x <i>T. platyphyllos</i>	Common lime
		<i>Tsuga heterophylla</i>	Western hemlock
		<i>Ulmus procera</i>	English elm
		<i>Ulmus</i> x <i>hollandica</i>	Dutch elm

APPENDIX 2: FIELD SHEETS

Sheet A – General site survey

Sheet B – Site species list

Sheet C1 – Relevé survey

Sheet C2 – Lichen check list

Sheet D1 – Tree structural data

Sheet D2 – Vertical stratigraphy

Site ID		Management	Veg. comm		%	Evidence of grazers		Regeneration (incl. exotic spp) (dafor)					
Team		Old native planting	WN1 oak birch holly			Deer			Sp.	Sd	Sp	P	M
Date		Recent native planting	WN2 oak ash hazel			Cattle							
Releves:		Recently felled natives	WN3 yew woodland			Sheep							
General		Old b/l exotics planting	WN4 wet oak ash			Rabbits							
Altitude range m		New b/l exotic planting	WN5 riparian			Hares							
Slope		Old conifer planting	WN6 willow alder ash			Goats							
Aspect		New conifer planting	WN7 Bog			Horses							
Site area (ha)		Recent exotic felling	WD1 mixed b/l			Other:							
		Mature coppice	WD2 mixed b/l + co			Grazing Level							
Topographical situation		Recently cut coppice	Other										
Flat		Pollards				Invasive shrubs							
Summit (angular)		Amenity				Species		Level					
Summit (rounded)		Dumping	Adj. Land Use			Prun laur							
Upper slope		Other	FL		CW	Rhod pont							
Mid-slope			FW		CS	Symp albu							
Terraced slope		Internal Features	FP		WN	Coto spp							
Lower slope		Banks	FS		WD	Corn seri							
Depression		Ditches	GA		WS	Leyc form							
Other		Cultivation ridges	GS		WL	Fall japo							
		Ruined buildings	GM		BC	Other							
Geography		Walls	HH		BL								
Esker		Exclosures	HD		ER								
Drumlin			PB		EU								
Hill		Dead Wood (afor)	PF		ED								
Valley		Standing dead	CD										
Lakeside		Standing damaged	CC										
Bogland		Uprooted/root plate	CB										
Other		Coarse wood/debris											
		Fine Woody debris											
Soil moisture regime		Snags/snapped											
Freely draining			Boundary										
Moderately free		Surface Cover (dafor)	River/Stream										
Impeded		Rock & Boulders	Canal										
Strongly impeded		Stones & gravel	Rail										
		Bare soil	Lake										
Hydrological features		Litter	Road/Track										
Seasonal flooding		Bryophyte	Wall										
Springs		Herb	Ditch										
Lakes/pools		Low woody sp.	Bank										
Rivers/streams			Fence										
Damp Clefts/ravines			None – Abrupt										
Other			None - Diffuse										

Trees	F	S	C	Low woody	Herbs	Herbs	Herbs	Sedges	Ferns	Mosses			
Abie alba				Buxu semp	Circ lute	Lysi vulg	Succ prat	Care vesi	Poly vulg	Poly form			
Abie proc				Call vulg	Cirs arve	Lyth sali	Tara agg.	Care viri	Pols seti	Pseu puru			
Acer pseu				Corn sang	Cirs diss	Mela prat	Teuc scor		Pter aqui	Rhiz punc			
Aesc hipp				Cyti scop	Cirs palu	Ment aqua	Tori japo	Grasses		Rhyn ripa			
Alnu glut				Eric tetr	Cirs vulg	Meny trif	Trif repe	Agro cani	Mosses	Rhyt lore			
Betu pend				Fall japo	Cono maju	Myos laxa	Trif prat	Agro capi	Ambl serp	Rhyt squa			
Betu pub				Hede heli	Crep palu	Myos scor	Tuss farf	Agro stol	Atri undu	Rhyt triq			
Carp betu				Leyc form	Dact fuch	Oena croc	Urti dioi	Anth odor	Brac riv	Spha capi			
Cast sati				Ligu vulg	Digi purp	Orch masc	Umbe rupe	Arrh elat	Brac rut	Spha cusp			
Cory avel				Loni peri	Epil hirs	Oxal acet	Vale offi	Brac sylv	Call cord	Spha fimb			
Crat mono				Myri gale	Epil mont	Pers hydr	Vero becc	Brom ramo	Call cusp	Spha palu			
Euon euro				Rhod pont	Epil obsc	Pers macu	Vero cham	Cyno cris	Cinc font	Spha squa			
Fagu sylv				Ribe nigr	Epil palu	Peta frag	Vero mont	Dact glom	Cirr pili	Spha subn			
Frax exce				Ribe rubr	Epil parv	Plan lanc	Vero offi	Desc cesp	Clim den	Tham alop			
Ilex aqui				Rosa arv	Epip hell	Plan majo	Vero serp	Desc flex	Cryp hete	Thui tama			
Lari deci				Rosa can	Eupa cann	Pote anse	Vici crac	Fest rubr	Cten moll	Ulot bruc			
Lari kaem				Rubu idea	Fili ulma	Pote erect	Vici sepi	Fest gigi	Dicr maju	Ulot crisp			
Malu sylv				Rubu frut	Frag vesc	Pote palu	Viol palu	Glyc flui	Dicr scop	Ulot phyl			
Pice abie				Symp albu	Gali apar	Pote rept	Viol reic	Holc lana	Eurh stri	Zygo viri			
Pice sitc				Ulex euro	Gali odor	Pote ster	Viol rivi	Holc moll	Fiss adia				
Pinu sylv				Ulex gali	Gali palu	Prim vulg	Viol sp.	Loli pere	Fiss bryo				
Popu nigr				Vacc myrt	Gali saxa	Prune vulg		Meli unif	Fiss taxi	Liverworts			
Popu trem					Gera robe	Ranu acris	Rushes	Moli caer	Font anti	Caly fissa			
Prun aviu				Herbs	Geum urba	Ranu fica	Junc acut	Phal arun	Homa seri	Caly muel			
Prun laur				Aego poda	Glec hede	Ranu flam	Junc arti	Phle prat	Hook luce	Chil poly			
Prun padu				Ajug rept	Hera spon	Ranu repe	Junc bufo	Phra aust	Hylo brevi	Cono con			
Prun spin				Alis plan	Hyac nons	Rori nast	Junc bulb	Poa annu	Hylo splen	Dipl albi			
Pseu menz				Alli pete	Hydr vulg	R. acetosa	Junc cong	Poa triv	Hyoc armo	Frul dila			
Quer xros				Alli urs	Hype andr	Rume cong	Junc effu		Hypn ando	Frul tama			
Quer petr				Anag arve	Hype masc	Rume obtu	Junc infl	Horsetails	Hypn cupr	Leje ulic			
Quer robu				Anem nem	Hype perf	Rume san	Luzu camp	Equi arve	Hypn jutl	Lepi rept			
Rham cath				Ange syl	Hype pulc	Sani euro	Luzu pilo	Equi fluv	Hypn resu	Loph bid			
Sali alba				Anth sylv	Hype tetr	Scro nod	Luzu mult	Equi palu	Isop eleg	Lunu cruc			
Sali auri				Apiu nodi	Hypo radi	Scut gale	Luzu sylv	Equi sylv	Isot alop	Marc mach			
Sali capr				Arct minu	Impa glan	Sene aqua		Equi telm	Isot myos	Metz frut			
Sali cine				Arum macu	Iris pseu	Sene jaco	Sedges		Kind prae	Metz furc			
Sali frag				Bell pere	Laps comm	Sile dioi	Care echi	Ferns	Leuc glau	Pell endi			
Sali xmul				Call stag	Lath lini	Sola dulc	Care elat	Aspl tric	Mniu horn	Pell epip			
Samb nigr				Calt palu	Lath prat	Soli virg	Care flac	Athy f-f	Neck comp	Plag aspl			
Sorb auc				Caly sepi	Lemn mino	Sonc aspe	Care laev	Blec spic	Neck crisp	Plag pore			
Tili cord				Card flex	Leon autu	Sonc oler	Care nigr	Dryo aem	Orth affi	Radu comp			
Tili xeur				Card hirs	List ovat	Stac palu	Care pend	Dryo affi	Oxyr hian	Ricc mult			
Taxu bacc				Card prat	Lotu corn	Stac sylv	Care pnlt	Dryo cart	Pleu schr	Sacc viti			
Tsug hete				Cent nigr	Lych fl-c	Stel gram	Care remo	Dryo dila	Plth dent	Scap grac			
Ulm glab				Cera font	Lycu euro	Stel holo	Care rost	Dryo f-m	Plth undu	Scap nemo			
Ulm pro				Cham angu	Lysi nemo	Stel medi	Care stri	Osmu rega	Pmni undu	Scap undu			
Vibu opul				Chry opp	Lysi numm	Stel ulig	Care sylv	Phly scolo	Poly comm	Trich tome			

Site ID:

Date:

Team:

Trees	Low	Herbs	Herbs	Herbs	Sedges	Ferns	Mosses			
Abie alba	Buxu semp	Circ lute	Lysi vulg	Succ prat	Care vesi	Poly vulg	Poly form			
Abie proc	Call vulg	Cirs arve	Lyth sali	Tara agg.	Care viri	Pols seti	Pseu puru			
Acer pseu	Corn sang	Cirs diss	Mela prat	Teuc scor		Pter aqui	Rhiz punc			
Aesc hipp	Cyti scop	Cirs palu	Ment aqua	Tori japo	Grasses		Rhyn ripa			
Alnu glut	Eric tetr	Cirs vulg	Meny trif	Trif repe	Agro cani	Mosses	Rhyt lore			
Betu pend	Fall japo	Cono maju	Myos laxa	Trif prat	Agro capi	Ambl serp	Rhyt squa			
Betu pub	Hede heli	Crep palu	Myos scor	Tuss farf	Agro stol	Atri undu	Rhyt triq			
Carp betu	Leyc form	Dact fuch	Oena croc	Urti dioi	Anth odor	Brac riv	Spha capi			
Cast sati	Ligu vulg	Digi purp	Orch masc	Umbe rupe	Arrh elat	Brac rut	Spha cusp			
Cory avel	Loni peri	Epil hirs	Oxal acet	Vale offi	Brac sylv	Call cord	Spha fimb			
Crat mono	Myri gale	Epil mont	Pers hydr	Vero becc	Brom ramo	Call cusp	Spha palu			
Euon euro	Rhod pont	Epil obsc	Pers macu	Vero cham	Cyno cris	Cinc font	Spha squa			
Fagu sylv	Ribe nigr	Epil palu	Peta frag	Vero mont	Dact glom	Cirr pili	Spha subn			
Frax exce	Ribe rubr	Epil parv	Plan lanc	Vero offi	Desc cesp	Clim den	Tham alop			
Ilex aqui	Rosa arv	Epip hell	Plan majo	Vero serp	Desc flex	Cryp hete	Thui tama			
Lari deci	Rosa can	Eupa cann	Pote anse	Vici crac	Fest rubr	Cten moll	Ulot bruc			
Lari kaem	Rubu idea	Fili ulma	Pote erect	Vici sepi	Fest gigi	Dicr maju	Ulot crisp			
Malu sylv	Rubu frut	Frag vesc	Pote palu	Viol palu	Glyc flui	Dicr scop	Ulot phyl			
Pice abie	Symp albu	Gali apar	Pote rept	Viol reic	Holc lana	Eurh stri	Zygo viri			
Pice sitc	Ulex euro	Gali odor	Pote ster	Viol rivi	Holc moll	Fiss adia				
Pinu sylv	Ulex gali	Gali palu	Prim vulg	Viol sp.	Loli pere	Fiss bryo				
Popu nigr	Vacc myrt	Gali saxa	Prune vulg		Meli unif	Fiss taxi	Liverworts			
Popu trem		Gera robe	Ranu acris	Rushes	Moli caer	Font anti	Caly fissa			
Prun aviu	Herbs	Geum urba	Ranu fica	Junc acut	Phal arun	Homa seri	Caly muel			
Prun laur	Aego poda	Glec hede	Ranu flam	Junc arti	Phle prat	Hook luce	Chil poly			
Prun padu	Ajup rept	Hera spon	Ranu repe	Junc bufo	Phra aust	Hylo brevi	Cono con			
Prun spin	Alis plan	Hyac nons	Rori nast	Junc bulb	Poa annu	Hylo splen	Dipl albi			
Pseu menz	Alli pete	Hydr vulg	R. acetosa	Junc cong	Poa triv	Hyoc armo	Frul dila			
Quer xros	Alli urs	Hype andr	Rume cong	Junc effu		Hypn ando	Frul tama			
Quer petr	Anag arve	Hype masc	Rume obtu	Junc infl	Horsetails	Hypn cupr	Leje ulic			
Quer robu	Anem nem	Hype perf	Rume san	Luzu camp	Equi arve	Hypn jutl	Lepi rept			
Rham cath	Ange syl	Hype pulc	Sani euro	Luzu pilo	Equi fluv	Hypn resu	Loph bid			
Sali alba	Anth sylv	Hype tetr	Scro nod	Luzu mult	Equi palu	Isop eleg	Lunu cruc			
Sali auri	Apiu nodi	Hypo radi	Scut gale	Luzu sylv	Equi sylv	Isot alop	Marc mach			
Sali capr	Arct minu	Impa glan	Sene aqua		Equi telm	Isot myos	Metz frut			
Sali cine	Arum macu	Iris pseu	Sene jaco	Sedges		Kind praе	Metz furc			
Sali frag	Bell pere	Laps comm	Sile dioi	Care echi	Ferns	Leuc glau	Pell endi			
Sali xmul	Call stag	Lath lini	Sola dulc	Care elat	Aspl tric	Mniu horn	Pell epip			
Samb nigr	Calt palu	Lath prat	Soli virg	Care flac	Athy f-f	Neck comp	Plag aspl			
Sorb auc	Caly sepi	Lemn mino	Sonc aspe	Care laev	Blec spic	Neck crisp	Plag pore			
Tili cord	Card flex	Leon autu	Sonc oler	Care nigr	Dryo aem	Orth affi	Radu comp			
Tili xeur	Card hirs	List ovat	Stac palu	Care pend	Dryo affi	Oxyr hian	Ricc mult			
Taxu bacc	Card prat	Lotu corn	Stac sylv	Care pnlt	Dryo cart	Pleu schr	Sacc viti			
Tsug hete	Cent nigr	Lych fl-c	Stel gram	Care remo	Dryo dila	Plth dent	Scap grac			
Ulm glab	Cera font	Lycu euro	Stel holo	Care rost	Dryo f-m	Plth undu	Scap nemo			
Ulm pro	Cham angu	Lysi nemo	Stel medi	Care stri	Osmu rega	Pmni undu	Scap undu			
Vibu opul	Chry opp	Lysi numm	Stel ulig	Care sylv	Phly scola	Poly comm	Trich tome			

Site ID:

Date:

Veg. Comm.

Releve:

Team:

Altitude:

Grid Ref:

Soil ID:

Aspect:

Topography:

Slope:

±

Bare soil

Rocks

Litter

Dead wood

Surface water

Ground layer

Field layer

Shrub layer

Canopy

Soil pH 1

Soil pH 2

Mean pH

Sheet C1: Relevé survey

Lichen Check List

Site Number:

Releve:

Date:

Team:

[illegible]

* All species within these genera are of interest – please write in species name or take voucher specimen

Team:

Total Plot Size: _____

[illegible][illegible]

Vertical Stratigraphy

Site Number:

Releve:

Date:

Team:

Photo Details

<u>Strata</u>	<u>Ht</u>	<u>Dominants</u>	<u>% Cover</u>
---------------	-----------	------------------	----------------

Native Woodland Scheme Information

Suitable as a seed source identified?	YES	NO	(please circle)
---------------------------------------	-----	----	-----------------

Suitable for selection as seed stand?	YES	NO	(please circle)
---------------------------------------	-----	----	-----------------

Suitable species (5 most abundant):

APPENDIX 3: SITES SPECIES FREQUENCY

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
1294	98.0%	<i>Rubus fruticosus</i> agg.	691	52.3%	<i>Quercus robur</i>
1275	96.6%	<i>Hedera helix</i>	690	52.3%	<i>Hyacinthoides non-scripta</i>
1218	92.3%	<i>Crataegus monogyna</i>	684	51.8%	<i>Rumex sanguineus</i>
1191	90.2%	<i>Fraxinus excelsior</i>	680	51.5%	<i>Veronica chamaedrys</i>
1186	89.8%	<i>Dryopteris dilatata</i>	678	51.4%	<i>Vicia sepium</i>
1142	86.5%	<i>Thuidium tamariscinum</i>	675	51.1%	<i>Taraxacum</i> agg.
1127	85.4%	<i>Ilex aquifolium</i>	674	51.1%	<i>Alnus glutinosa</i>
1115	84.5%	<i>Lonicera periclymenum</i>	672	50.9%	<i>Plagiomnium undulatum</i>
1098	83.2%	<i>Geranium robertianum</i>	661	50.1%	<i>Chrysplenium oppositifolium</i>
1096	83.0%	<i>Kindbergia praelonga</i>	661	50.1%	<i>Mnium hornum</i>
1032	78.2%	<i>Salix cinerea</i>	657	49.8%	<i>Deschampsia cespitosa</i>
971	73.6%	<i>Ranunculus repens</i>	655	49.6%	<i>Frullania dilatata</i>
956	72.4%	<i>Betula pubescens</i>	642	48.6%	<i>Neckera complanata</i>
952	72.1%	<i>Acer pseudoplatanus</i>	634	48.0%	<i>Veronica montana</i>
952	72.1%	<i>Filipendula ulmaria</i>	627	47.5%	<i>Sambucus nigra</i>
945	71.6%	<i>Geum urbanum</i>	626	47.4%	<i>Polytrichastrum formosum</i>
944	71.5%	<i>Urtica dioica</i>	624	47.3%	<i>Galium palustre</i>
938	71.1%	<i>Eurhynchium striatum</i>	620	47.0%	<i>Cardamine flexuosa</i>
927	70.2%	<i>Corylus avellana</i>	615	46.6%	<i>Lophocolea bidentata</i>
919	69.6%	<i>Dryopteris affinis</i>	614	46.5%	<i>Polystichum setiferum</i>
905	68.6%	<i>Fagus sylvatica</i>	612	46.4%	<i>Potentilla sterilis</i>
899	68.1%	<i>Hypnum cupressiforme</i>	611	46.3%	<i>Dactylis glomerata</i>
865	65.5%	<i>Circaea lutetiana</i>	603	45.7%	<i>Galium aparine</i>
863	65.4%	<i>Viola riviniana/reichenbachiana</i>	599	45.4%	<i>Lysimachia nemorum</i>
861	65.2%	<i>Juncus effusus</i>	585	44.3%	<i>Metzgeria furcata</i>
858	65.0%	<i>Pteridium aquilinum</i>	576	43.6%	<i>Dryopteris filix-mas</i>
832	63.0%	<i>Isoetecium myosuroides</i>	575	43.6%	<i>Ulex europaeus</i>
807	61.1%	<i>Agrostis stolonifera</i>	574	43.5%	<i>Sanicula europaea</i>
807	61.1%	<i>Prunus spinosa</i>	572	43.3%	<i>Brachythecium rutabulum</i>
806	61.1%	<i>Holcus lanatus</i>	556	42.1%	<i>Ajuga reptans</i>
804	60.9%	<i>Polypodium vulgare</i>	553	41.9%	<i>Arum maculatum</i>
787	59.6%	<i>Oxalis acetosella</i>	535	40.5%	<i>Hypnum andoi</i>
786	59.5%	<i>Athyrium filix-femina</i>	528	40.0%	<i>Heracleum sphondylium</i>
765	58.0%	<i>Thamnobryum alopecurum</i>	526	39.8%	<i>Epilobium montanum</i>
757	57.3%	<i>Carex remota</i>	518	39.2%	<i>Atrichum undulatum</i>
741	56.1%	<i>Blechnum spicant</i>	500	37.9%	<i>Anthoxanthum odoratum</i>
739	56.0%	<i>Carex sylvatica</i>	486	36.8%	<i>Mentha aquatica</i>
734	55.6%	<i>Sorbus aucuparia</i>	482	36.5%	<i>Prunella vulgaris</i>
733	55.5%	<i>Brachypodium sylvaticum</i>	479	36.3%	<i>Cirsium palustre</i>
713	54.0%	<i>Primula vulgaris</i>	464	35.2%	<i>Radula complanata</i>
711	53.9%	<i>Angelica sylvestris</i>	459	34.8%	<i>Molinia caerulea</i>
710	53.8%	<i>Phyllitis scolopendrium</i>	458	34.7%	<i>Luzula sylvatica</i>
693	52.5%	<i>Rhytidiadelphus triquetrus</i>	454	34.4%	<i>Pellia epiphylla</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
453	34.3%	<i>Vaccinium myrtillus</i>	289	21.9%	<i>Polytrichum commune</i>
447	33.9%	<i>Quercus petraea</i>	287	21.7%	<i>Frullania tamarisci</i>
441	33.4%	<i>Pinus sylvestris</i>	280	21.2%	<i>Phalaris arundinacea</i>
439	33.3%	<i>Agrostis capillaris</i>	278	21.1%	<i>Carex flacca</i>
433	32.8%	<i>Potentilla erecta</i>	275	20.8%	<i>Viola riviniana</i>
431	32.7%	<i>Digitalis purpurea</i>	274	20.8%	<i>Ranunculus ficaria</i>
427	32.3%	<i>Iris pseudacorus</i>	273	20.7%	<i>Ranunculus flammula</i>
425	32.2%	<i>Stachys sylvatica</i>	256	19.4%	<i>Prunus laurocerasus</i>
423	32.0%	<i>Hypericum androsaemum</i>	255	19.3%	<i>Cardamine pratensis</i>
419	31.7%	<i>Calliergonella cuspidata</i>	252	19.1%	<i>Lythrum salicaria</i>
412	31.2%	<i>Ulotia crispa</i>	252	19.1%	<i>Scrophularia nodosa</i>
402	30.5%	<i>Pseudoscleropodium purum</i>	251	19.0%	<i>Caltha palustris</i>
389	29.5%	<i>Viburnum opulus</i>	249	18.9%	<i>Chamerion angustifolium</i>
383	29.0%	<i>Conopodium majus</i>	247	18.7%	<i>Aesculus hippocastanum</i>
379	28.7%	<i>Rosa canina</i>	244	18.5%	<i>Rhytidadelphus squarrosus</i>
378	28.6%	<i>Dicranum scoparium</i>	234	17.7%	<i>Salix aurita</i> x <i>S. cinerea</i>
378	28.6%	<i>Isoetecium alopecuroides</i>	231	17.5%	<i>Anemone nemorosa</i>
376	28.5%	<i>Valeriana officinalis</i>	226	17.1%	<i>Teucrium scorodonia</i>
373	28.3%	<i>Rubus idaeus</i>	225	17.0%	<i>Ulotia phyllantha</i>
371	28.1%	<i>Hookeria lucens</i>	224	17.0%	<i>Equisetum arvense</i>
371	28.1%	<i>Hypnum resupinatum</i>	222	16.8%	<i>Malus sylvestris</i>
369	28.0%	<i>Fragaria vesca</i>	220	16.7%	<i>Anthriscus sylvestris</i>
367	27.8%	<i>Stellaria holostea</i>	220	16.7%	<i>Equisetum fluviatile</i>
366	27.7%	<i>Ulmus glabra</i>	220	16.7%	<i>Plagiothecium undulatum</i>
362	27.4%	<i>Glechoma hederacea</i>	211	16.0%	<i>Plantago major</i>
351	26.6%	<i>Hypericum pulchrum</i>	210	15.9%	<i>Plagiochila asplenoides</i>
343	26.0%	<i>Agrostis canina</i>	205	15.5%	<i>Rosa arvensis</i>
339	25.7%	<i>Ulotia bruchii</i>	203	15.4%	<i>Taxus baccata</i>
336	25.5%	<i>Rhizomnium punctatum</i>	200	15.2%	<i>Salix aurita</i>
333	25.2%	<i>Salix caprea</i>	199	15.1%	<i>Dryopteris aemula</i>
332	25.2%	<i>Hypnum jutlandicum</i>	199	15.1%	<i>Loeskeobryum brevirostre</i>
330	25.0%	<i>Senecio jacobaea</i>	193	14.6%	<i>Cirsium vulgare</i>
325	24.6%	<i>Calluna vulgaris</i>	191	14.5%	<i>Oenanthe crocata</i>
323	24.5%	<i>Glyceria fluitans</i>	190	14.4%	<i>Homalothecium sericans</i>
323	24.5%	<i>Succisa pratensis</i>	188	14.2%	<i>Sphagnum palustre</i>
322	24.4%	<i>Euonymus europaeus</i>	186	14.1%	<i>Stellaria uliginosa</i>
321	24.3%	<i>Senecio aquaticus</i>	184	13.9%	<i>Plantago lanceolata</i>
317	24.0%	<i>Ranunculus acris</i>	180	13.6%	<i>Calystegia sepium</i>
316	23.9%	<i>Lapsana communis</i>	174	13.2%	<i>Luzula multiflora</i>
312	23.6%	<i>Picea sitchensis</i>	173	13.1%	<i>Climacium dendroides</i>
312	23.6%	<i>Rumex acetosa</i>	173	13.1%	<i>Epilobium hirsutum</i>
306	23.2%	<i>Poa trivialis</i>	173	13.1%	<i>Viola palustris</i>
301	22.8%	<i>Rhododendron ponticum</i>	170	12.9%	<i>Pseudotaxiphyllum elegans</i>
299	22.7%	<i>Rhytidadelphus loreus</i>	164	12.4%	<i>Larix decidua</i>
295	22.3%	<i>Arrhenatherum elatius</i>	163	12.3%	<i>Potentilla palustris</i>
291	22.0%	<i>Fissidens taxifolius</i>	161	12.2%	<i>Stellaria media</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
158	12.0%	<i>Carex pendula</i>	112	8.5%	<i>Listera ovata</i>
158	12.0%	<i>Veronica serpyllifolia</i>	112	8.5%	<i>Lycopus europaeus</i>
157	11.9%	<i>Abies alba</i>	112	8.5%	<i>Microlejeunea ulicina</i>
155	11.7%	<i>Bellis perennis</i>	111	8.4%	<i>Crocsmia aurea</i> x <i>C. pottsii</i>
153	11.6%	<i>Hylocomium splendens</i>	111	8.4%	<i>Pseudotsuga menziesii</i>
153	11.6%	<i>Rumex obtusifolius</i>	111	8.4%	<i>Rosa</i> sp.
152	11.5%	<i>Trifolium repens</i>	108	8.2%	<i>Lotus corniculatus</i>
149	11.3%	<i>Umbilicus rupestris</i>	108	8.2%	<i>Potentilla reptans</i>
148	11.2%	<i>Carex echinata</i>	107	8.1%	<i>Veronica beccabunga</i>
146	11.1%	<i>Ligustrum vulgare</i>	106	8.0%	<i>Quercus petraea</i> x <i>Q. robur</i>
145	11.0%	<i>Symphoricarpos albus</i>	105	8.0%	<i>Betula pendula</i>
141	10.7%	<i>Arctium minus</i> sens. lat.	105	8.0%	<i>Calliergon cordifolium</i>
140	10.6%	<i>Conocephalum conicum</i>	104	7.9%	<i>Castanea sativa</i>
140	10.6%	<i>Phragmites australis</i>	101	7.7%	<i>Epilobium parviflorum</i>
139	10.5%	<i>Juncus bulbosus</i>	100	7.6%	<i>Ribes rubrum</i>
139	10.5%	<i>Picea abies</i>	99	7.5%	<i>Cynosurus cristatus</i>
138	10.5%	<i>Solanum dulcamara</i>	98	7.4%	<i>Crepis paludosa</i>
138	10.5%	<i>Solidago virgaurea</i>	98	7.4%	<i>Lychnis flos-cuculi</i>
137	10.4%	<i>Epilobium obscurum</i>	97	7.3%	<i>Trifolium pratense</i>
137	10.4%	<i>Festuca rubra</i>	96	7.3%	<i>Asplenium trichomanes</i>
136	10.3%	<i>Plagiochila porelloides</i>	96	7.3%	<i>Calypogeia muelleriana</i>
135	10.2%	<i>Osmunda regalis</i>	96	7.3%	<i>Equisetum telmateia</i>
134	10.2%	<i>Cerastium fontanum</i>	95	7.2%	<i>Erica tetralix</i>
134	10.2%	<i>Dicranum majus</i>	95	7.2%	<i>Luzula pilosa</i>
132	10.0%	<i>Galium saxatile</i>	94	7.1%	<i>Equisetum sylvaticum</i>
132	10.0%	<i>Hypericum tetrapterum</i>	94	7.1%	<i>Lathyrus pratensis</i>
131	9.9%	<i>Carex paniculata</i>	93	7.0%	<i>Metzgeria fruticulosa</i>
131	9.9%	<i>Hypochaeris radicata</i>	92	7.0%	<i>Calypogeia fissa</i>
130	9.8%	<i>Dactylorhiza fuchsii</i>	91	6.9%	<i>Juncus acutiflorus</i>
129	9.8%	<i>Deschampsia flexuosa</i>	90	6.8%	<i>Melampyrum pratense</i>
128	9.7%	<i>Apium nodiflorum</i>	89	6.7%	<i>Dryopteris carthusiana</i>
128	9.7%	<i>Carex nigra</i>	89	6.7%	<i>Myosotis scorpioides</i>
127	9.6%	<i>Prunus avium</i>	88	6.7%	<i>Euphorbia hyberna</i>
127	9.6%	<i>Veronica officinalis</i>	87	6.6%	<i>Menyanthes trifoliata</i>
124	9.4%	<i>Festuca gigantea</i>	86	6.5%	<i>Lysimachia vulgaris</i>
123	9.3%	<i>Allium ursinum</i>	86	6.5%	<i>Saccogyna viticulosa</i>
123	9.3%	<i>Galium odoratum</i>	85	6.4%	<i>Rorippa nasturtium-aquaticum</i>
121	9.2%	<i>Poa annua</i>	83	6.3%	<i>Cirriphyllum piliferum</i>
118	8.9%	<i>Carex</i> sp.	83	6.3%	<i>Epilobium palustre</i>
118	8.9%	<i>Diplophyllum albicans</i>	82	6.2%	<i>Centaurea nigra</i>
117	8.9%	<i>Cirsium arvense</i>	82	6.2%	<i>Lathyrus linifolius</i>
117	8.9%	<i>Holcus mollis</i>	81	6.1%	<i>Neckera pumila</i>
116	8.8%	<i>Dicranella heteromalla</i>	81	6.1%	<i>Oxyrrhynchium hians</i>
116	8.8%	<i>Stachys palustris</i>	80	6.1%	<i>Myrica gale</i>
116	8.8%	<i>Vicia cracca</i>	80	6.1%	<i>Orchis mascula</i>
115	8.7%	<i>Potentilla anserina</i>	78	5.9%	<i>Erica cinerea</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
78	5.9%	<i>Eupatorium cannabinum</i>	52	3.9%	<i>Persicaria maculosa</i>
78	5.9%	<i>Salix fragilis</i>	51	3.9%	<i>Fallopia japonica</i>
76	5.8%	<i>Geum rivale</i>	51	3.9%	<i>Ribes uva-crispa</i>
75	5.7%	<i>Carex rostrata</i>	50	3.8%	<i>Fuchsia magellanica</i>
75	5.7%	<i>Fissidens</i> sp.	50	3.8%	<i>Sonchus asper</i>
75	5.7%	<i>Scapania gracilis</i>	50	3.8%	<i>Ulmus procera</i>
73	5.5%	<i>Epilobium</i> sp.	49	3.7%	<i>Fissidens adianthoides</i>
73	5.5%	<i>Melica uniflora</i>	49	3.7%	<i>Lysimachia nummularia</i>
72	5.5%	<i>Bromopsis ramosa</i>	49	3.7%	<i>Scrophularia auriculata</i>
72	5.5%	<i>Callitriche stagnalis</i>	49	3.7%	<i>Sphagnum squarrosum</i>
70	5.3%	<i>Ctenidium molluscum</i>	48	3.6%	<i>Cornus sericea</i>
69	5.2%	<i>Rhamnus cathartica</i>	48	3.6%	<i>Fissidens bryoides</i>
68	5.2%	<i>Tilia platyphyllos</i> x <i>T. cordata</i>	47	3.6%	<i>Carex viridula</i>
66	5.0%	<i>Cryphaea heteromalla</i>	47	3.6%	<i>Torilis japonica</i>
66	5.0%	<i>Populus tremula</i>	46	3.5%	<i>Alliaria petiolata</i>
66	5.0%	<i>Scapania nemorea</i>	46	3.5%	<i>Carex pilulifera</i>
65	4.9%	<i>Carex laevigata</i>	46	3.5%	<i>Cirsium dissectum</i>
65	4.9%	<i>Juncus conglomeratus</i>	46	3.5%	<i>Equisetum palustre</i>
65	4.9%	<i>Scutellaria galericulata</i>	46	3.5%	<i>Juncus articulatus</i>
64	4.8%	<i>Sphagnum subnitens</i>	46	3.5%	<i>Pellia endiviifolia</i>
62	4.7%	<i>Campylopus introflexus</i>	46	3.5%	<i>Poa</i> sp.
62	4.7%	<i>Cotoneaster</i> sp.	45	3.4%	<i>Fontinalis antipyretica</i>
62	4.7%	<i>Leucobryum glaucum</i>	45	3.4%	<i>Pleurozium schreberi</i>
62	4.7%	<i>Salix alba</i>	45	3.4%	<i>Tsuga heterophylla</i>
61	4.6%	<i>Rumex conglomeratus</i>	44	3.3%	<i>Campylopus flexuosus</i>
60	4.5%	<i>Ribes nigrum</i>	44	3.3%	<i>Festuca ovina</i>
60	4.5%	<i>Sphagnum capillifolium</i>	44	3.3%	<i>Sphagnum</i> sp.
59	4.5%	<i>Brachythecium rivulare</i>	43	3.3%	<i>Carex elata</i>
59	4.5%	<i>Plagiothecium succulentum</i>	42	3.2%	<i>Lejeunea patens</i>
59	4.5%	<i>Tussilago farfara</i>	42	3.2%	<i>Plagiochila spinulosa</i>
58	4.4%	<i>Persicaria hydropiper</i>	42	3.2%	<i>Potamogeton polygonifolius</i>
57	4.3%	<i>Lepidozia reptans</i>	41	3.1%	<i>Carex strigosa</i>
56	4.2%	<i>Hydrocotyle vulgaris</i>	41	3.1%	<i>Frullania teneriffae</i>
56	4.2%	<i>Lemna minor</i>	41	3.1%	<i>Neckera crispa</i>
56	4.2%	<i>Sonchus oleraceus</i>	41	3.1%	<i>Typha latifolia</i>
55	4.2%	<i>Epipactis helleborine</i>	40	3.0%	<i>Carex binervis</i>
55	4.2%	<i>Hypericum perforatum</i>	40	3.0%	<i>Leycesteria formosa</i>
54	4.1%	<i>Lolium perenne</i>	40	3.0%	<i>Stellaria graminea</i>
54	4.1%	<i>Saxifraga spathularis</i>	39	3.0%	<i>Carpinus betulus</i>
53	4.0%	<i>Carex vesicaria</i>	39	3.0%	<i>Chiloscyphus pallescens</i>
53	4.0%	<i>Hyocomium armoricum</i>	39	3.0%	<i>Hymenophyllum wilsonii</i>
53	4.0%	<i>Juncus bufonius</i>	39	3.0%	<i>Petasites fragrans</i>
53	4.0%	<i>Larix kaempferi</i>	39	3.0%	<i>Petasites hybridus</i>
53	4.0%	<i>Lotus pedunculatus</i>	39	3.0%	<i>Phleum pratense</i>
52	3.9%	<i>Buxus sempervirens</i>	39	3.0%	<i>Silene dioica</i>
52	3.9%	<i>Juncus inflexus</i>	38	2.9%	<i>Heterocladium heteropterum</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
38	2.9%	<i>Sphagnum cuspidatum</i>	23	1.7%	<i>Breutelia chrysocoma</i>
38	2.9%	<i>Trichocolea tomentella</i>	23	1.7%	<i>Campylopus pyriformis</i>
37	2.8%	<i>Cardamine hirsuta</i>	23	1.7%	<i>Rubus saxatilis</i>
37	2.8%	<i>Chamaecyparis lawsoniana</i>	23	1.7%	<i>Tilia cordata</i>
37	2.8%	<i>Plagiothecium denticulatum</i>	22	1.7%	<i>Asplenium adiantum-nigrum</i>
37	2.8%	<i>Prunus padus</i>	22	1.7%	<i>Myosotis secunda</i>
36	2.7%	<i>Alisma plantago-aquatica</i>	21	1.6%	<i>Abies procera</i>
36	2.7%	<i>Fissidens dubius</i>	21	1.6%	<i>Aulacomnium palustre</i>
36	2.7%	<i>Hymenophyllum tunbridgense</i>	21	1.6%	<i>Carex panicea</i>
36	2.7%	<i>Lejeunea lamacerina</i>	21	1.6%	<i>Cephalozia bicuspidata</i>
35	2.7%	<i>Dicranoweisia cirrata</i>	21	1.6%	<i>Epilobium brunnescens</i>
35	2.7%	<i>Viola reichenbachiana</i>	21	1.6%	<i>Myosotis laxa</i>
34	2.6%	<i>Impatiens glandulifera</i>	21	1.6%	<i>Ranunculus auricomus</i>
33	2.5%	<i>Orthotrichum affine</i>	20	1.5%	<i>Metzgeria temperata</i>
33	2.5%	<i>Sparganium erectum</i>	20	1.5%	<i>Plagiomnium rostratum</i>
32	2.4%	<i>Carex riparia</i>	19	1.4%	<i>Amblystegium serpens</i>
32	2.4%	<i>Luzula campestris</i>	19	1.4%	<i>Aneura pinguis</i>
32	2.4%	<i>Zygodon viridissimus</i>	19	1.4%	<i>Bazzania trilobata</i>
31	2.3%	<i>Cytisus scoparius</i>	19	1.4%	<i>Callitriche</i> sp.
31	2.3%	<i>Hypericum maculatum</i>	19	1.4%	<i>Chiloscyphus polyanthos</i>
31	2.3%	<i>Potentilla anglica</i>	19	1.4%	<i>Homalia trichomanoides</i>
31	2.3%	<i>Rumex</i> sp.	19	1.4%	<i>Leskea polycarpa</i>
30	2.3%	<i>Aegopodium podagraria</i>	19	1.4%	<i>Orthotrichum</i> sp.
30	2.3%	<i>Quercus</i> sp.	19	1.4%	<i>Poa pratensis</i>
29	2.2%	<i>Alopecurus pratensis</i>	19	1.4%	<i>Polystichum aculeatum</i>
29	2.2%	<i>Clematis vitalba</i>	19	1.4%	<i>Populus nigra</i> x <i>P. deltoides</i>
29	2.2%	<i>Pellia</i> sp.	19	1.4%	<i>Sanionia uncinata</i>
29	2.2%	<i>Poa nemoralis</i>	19	1.4%	<i>Sonchus arvensis</i>
29	2.2%	<i>Polypodium interjectum</i>	18	1.4%	<i>Myosotis</i> sp.
29	2.2%	<i>Rumex acetosella</i>	18	1.4%	<i>Sphagnum fimbriatum</i>
28	2.1%	<i>Dactylorhiza</i> sp.	17	1.3%	<i>Bambusa</i> sp.
28	2.1%	<i>Salix viminalis</i>	17	1.3%	<i>Berula erecta</i>
26	2.0%	<i>Acer campestre</i>	17	1.3%	<i>Cornus sanguinea</i>
26	2.0%	<i>Scapania</i> sp.	17	1.3%	<i>Lophocolea heterophylla</i>
25	1.9%	<i>Carex acuta</i>	17	1.3%	<i>Ophioglossum vulgatum</i>
25	1.9%	<i>Sorbus aria</i>	17	1.3%	<i>Oreopteris limbosperma</i>
25	1.9%	<i>Sphagnum quinquefarium</i>	17	1.3%	<i>Orobanche hederæ</i>
24	1.8%	<i>Achillea millefolium</i>	17	1.3%	<i>Quercus cerris</i>
24	1.8%	<i>Eriophorum vaginatum</i>	17	1.3%	<i>Sesleria caerulea</i>
24	1.8%	<i>Leontodon autumnalis</i>	17	1.3%	<i>Sorbus hibernica</i>
24	1.8%	<i>Ranunculus lingua</i>	17	1.3%	<i>Sphagnum denticulatum</i>
24	1.8%	<i>Rosa pimpinellifolia</i>	16	1.2%	<i>Aquilegia vulgaris</i>
24	1.8%	<i>Thalictrum flavum</i>	16	1.2%	<i>Carex pulicaris</i>
24	1.8%	<i>Ulex gallii</i>	16	1.2%	<i>Milium effusum</i>
23	1.7%	<i>Acer platanooides</i>	16	1.2%	<i>Plagiomnium affine</i>
23	1.7%	<i>Alnus incana</i>	16	1.2%	<i>Pogonatum aloides</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
15	1.1%	<i>Briza media</i>	12	0.9%	<i>Polygala serpyllifolia</i>
15	1.1%	<i>Cardamine</i> sp.	12	0.9%	<i>Rhynchosstegium confertum</i>
15	1.1%	<i>Carex acutiformis</i>	12	0.9%	<i>Salix pentandra</i>
15	1.1%	<i>Chamaecyparis nootkatensis</i> x <i>Cupressus macrocarpa</i>	12	0.9%	<i>Scapania undulata</i>
15	1.1%	<i>Epilobium ciliatum</i>	12	0.9%	<i>Schoenoplectus lacustris</i>
15	1.1%	<i>Frangula alnus</i>	12	0.9%	<i>Ulmus x hollandica</i>
15	1.1%	<i>Moehringia trinervia</i>	11	0.8%	<i>Calliergon giganteum</i>
15	1.1%	<i>Odontites vernus</i>	11	0.8%	<i>Cinclidotus fontinaloides</i>
15	1.1%	<i>Plagiothecium</i> sp.	11	0.8%	<i>Daboecia cantabrica</i>
15	1.1%	<i>Plagiomnium elatum</i>	11	0.8%	<i>Glyceria maxima</i>
15	1.1%	<i>Polypodium cambricum</i>	11	0.8%	<i>Hypnum</i> sp.
15	1.1%	<i>Polytrichum juniperinum</i>	11	0.8%	<i>Nuphar lutea</i>
15	1.1%	<i>Primula veris</i>	11	0.8%	<i>Populus nigra</i> ssp. <i>betulifolia</i>
15	1.1%	<i>Riccadia multifida</i>	11	0.8%	<i>Pulicaria dysenterica</i>
15	1.1%	<i>Schoenus nigricans</i>	11	0.8%	<i>Saxifraga hirsuta</i>
15	1.1%	<i>Sphagnum inundatum</i>	10	0.8%	<i>Achillea ptarmica</i>
14	1.1%	<i>Abies</i> sp.	10	0.8%	<i>Agostis vinealis</i>
14	1.1%	<i>Anagallis arvensis</i>	10	0.8%	<i>Carex divulsa</i>
14	1.1%	<i>Calypogeia arguta</i>	10	0.8%	<i>Galium verum</i>
14	1.1%	<i>Carex hirta</i>	10	0.8%	<i>Juncus</i> sp.
14	1.1%	<i>Galium uliginosum</i>	10	0.8%	<i>Narthecium ossifragum</i>
14	1.1%	<i>Mycelis muralis</i>	10	0.8%	<i>Orthotrichum lyelli</i>
14	1.1%	<i>Neottia nidus-avis</i>	10	0.8%	<i>Plagiomnium cuspidatum</i>
14	1.1%	<i>Picea</i> sp.	10	0.8%	<i>Potamogeton natans</i>
14	1.1%	<i>Pinus contorta</i>	10	0.8%	<i>Rumex hydrolapathum</i>
14	1.1%	<i>Populus alba</i>	9	0.7%	<i>Alchemilla filicaulis</i>
14	1.1%	<i>Sphagnum fallax</i>	9	0.7%	<i>Allium triquetrum</i>
13	1.0%	<i>Agrostis gigantea</i>	9	0.7%	<i>Bryum</i> sp.
13	1.0%	<i>Brachythecium velutinum</i>	9	0.7%	<i>Buddleja davidii</i>
13	1.0%	<i>Festuca</i> sp.	9	0.7%	<i>Carex curta</i>
13	1.0%	<i>Heracleum mantegazzianum</i>	9	0.7%	<i>Cladium mariscus</i>
13	1.0%	<i>Oxyrrhynchium speciosum</i>	9	0.7%	<i>Eleocharis palustris</i>
13	1.0%	<i>Platyhypnidium riparioides</i>	9	0.7%	<i>Equisetum variegatum</i>
13	1.0%	<i>Populus</i> sp.	9	0.7%	<i>Euphrasia officinalis</i> agg.
13	1.0%	<i>Quercus rubra</i>	9	0.7%	<i>Festuca vivipara</i>
13	1.0%	<i>Thuja plicata</i>	9	0.7%	<i>Frullania</i> sp.
13	1.0%	<i>Veronica hederifolia</i>	9	0.7%	<i>Gnaphalium uliginosum</i>
12	0.9%	<i>Cupressus</i> sp.	9	0.7%	<i>Hypericum</i> sp.
12	0.9%	<i>Dactylorhiza maculata</i>	9	0.7%	<i>Hypnum lacunosum</i>
12	0.9%	<i>Elytrigia repens</i>	9	0.7%	<i>Juncus tenuis</i>
12	0.9%	<i>Larix</i> sp.	9	0.7%	<i>Lonicera nitida</i>
12	0.9%	<i>Luzula</i> sp.	9	0.7%	<i>Matricaria discoidea</i>
12	0.9%	<i>Malus</i> sp.	9	0.7%	<i>Pinus</i> sp.
12	0.9%	<i>Mercurialis perennis</i>	9	0.7%	<i>Plagiothecium nemorale</i>
12	0.9%	<i>Plagiochila punctata</i>	9	0.7%	<i>Polygonum aviculare</i>
			9	0.7%	<i>Prunus</i> sp.

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
9	0.7%	<i>Rubus spectabilis</i>	6	0.5%	<i>Alchemilla vulgaris</i> agg.
9	0.7%	<i>Rumex crispus</i>	6	0.5%	<i>Amblystegium varium</i>
9	0.7%	<i>Sagina procumbens</i>	6	0.5%	<i>Andromeda polifolia</i>
9	0.7%	<i>Salix triandra</i>	6	0.5%	<i>Arbutus unedo</i>
9	0.7%	<i>Salix</i> sp.	6	0.5%	<i>Campylopus brevipilus</i>
9	0.7%	<i>Sphagnum recurvum</i> agg.	6	0.5%	<i>Carex disticha</i>
9	0.7%	<i>Symphytum officinale</i>	6	0.5%	<i>Carex elongata</i>
9	0.7%	<i>Tilia platyphyllos</i>	6	0.5%	<i>Centaurium erythraea</i>
8	0.6%	<i>Abies grandis</i>	6	0.5%	<i>Ceterach officinarum</i>
8	0.6%	<i>Anagallis tenella</i>	6	0.5%	<i>Cicuta virosa</i>
8	0.6%	<i>Bromus racemosus</i>	6	0.5%	<i>Drepanolejeunea hamatifolia</i>
8	0.6%	<i>Elymus caninus</i>	6	0.5%	<i>Geranium sanguineum</i>
8	0.6%	<i>Eriophorum angustifolium</i>	6	0.5%	<i>Glyceria declinata</i>
8	0.6%	<i>Eucalyptus</i> sp.	6	0.5%	<i>Gunnera tinctoria</i>
8	0.6%	<i>Galeopsis tetrahit</i>	6	0.5%	<i>Huperzia selago</i>
8	0.6%	<i>Leptodictyum riparium</i>	6	0.5%	<i>Juncus subnodulosus</i>
8	0.6%	<i>Leucanthemum vulgare</i>	6	0.5%	<i>Juniperus communis</i>
8	0.6%	<i>Lunularia cruciata</i>	6	0.5%	<i>Marchesinia mackaii</i>
8	0.6%	<i>Prunus cerasus</i>	6	0.5%	<i>Marsipella emarginata</i>
8	0.6%	<i>Quercus ilex</i>	6	0.5%	<i>Mentha</i> sp.
8	0.6%	<i>Racomitrium</i> sp.	6	0.5%	<i>Oenanthe aquatica</i>
8	0.6%	<i>Trifolium</i> sp.	6	0.5%	<i>Potamogeton</i> sp.
8	0.6%	<i>Ulotia</i> sp.	6	0.5%	<i>Ranunculus</i> sp.
8	0.6%	<i>Veronica scutellata</i>	6	0.5%	<i>Rorippa palustris</i>
7	0.5%	<i>Araucaria araucana</i>	6	0.5%	<i>Salix purpurea</i>
7	0.5%	<i>Campanula rotundifolia</i>	6	0.5%	<i>Samolus valerandi</i>
7	0.5%	<i>Campylopus</i> sp.	6	0.5%	<i>Vicia sativa</i>
7	0.5%	<i>Convolvulus arvensis</i>	6	0.5%	<i>Viola odorata</i>
7	0.5%	<i>Daucus carota</i>	5	0.4%	<i>Abies nordmanniana</i>
7	0.5%	<i>Equisetum fluviatile</i> x <i>E. arvense</i>	5	0.4%	<i>Bromus</i> sp.
7	0.5%	<i>Equisetum hyemale</i> x <i>E. variegatum</i>	5	0.4%	<i>Bryoerythrophyllum recurvirostrum</i>
7	0.5%	<i>Festuca altissima</i>	5	0.4%	<i>Campanula trachelium</i>
7	0.5%	<i>Fissidens celticus</i>	5	0.4%	<i>Carex ovalis</i>
7	0.5%	<i>Hieracium</i> agg.	5	0.4%	<i>Carex pseudocyperus</i>
7	0.5%	<i>Lemna trisulca</i>	5	0.4%	<i>Cephalozia</i> sp.
7	0.5%	<i>Medicago lupulina</i>	5	0.4%	<i>Danthonia decumbens</i>
7	0.5%	<i>Myosotis arvensis</i>	5	0.4%	<i>Epilobium tetragonum</i>
7	0.5%	<i>Plagiomnium</i> sp.	5	0.4%	<i>Festuca arundinacea</i>
7	0.5%	<i>Populus alba</i> x <i>P. tremula</i>	5	0.4%	<i>Hippuris vulgaris</i>
7	0.5%	<i>Prunus domestica</i>	5	0.4%	<i>Homalathecium lutescens</i>
7	0.5%	<i>Rhinanthus minor</i>	5	0.4%	<i>Hypericum humifusum</i>
7	0.5%	<i>Rorippa amphibia</i>	5	0.4%	<i>Jungermannia</i> sp.
7	0.5%	<i>Rubus caesius</i>	5	0.4%	<i>Lathyrus palustris</i>
7	0.5%	<i>Tortella tortuosa</i>	5	0.4%	<i>Laurus nobilis</i>
7	0.5%	<i>Zygodon conoideus</i>	5	0.4%	<i>Palustriella commutata</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
5	0.4%	<i>Persicaria</i> sp.	4	0.3%	<i>Pedicularis sylvatica</i>
5	0.4%	<i>Prunus lusitanica</i>	4	0.3%	<i>Phegopteris connectilis</i>
5	0.4%	<i>Racomitrium aciculare</i>	4	0.3%	<i>Pinguicula</i> sp.
5	0.4%	<i>Racomitrium heterostichum</i>	4	0.3%	<i>Plagiochila</i> sp.
5	0.4%	<i>Riccardia</i> sp.	4	0.3%	<i>Plagiomnium ellipticum</i>
5	0.4%	<i>Rorippa</i> sp.	4	0.3%	<i>Poa palustris</i>
5	0.4%	<i>Rubia peregrina</i>	4	0.3%	<i>Pogonatum urnigerum</i>
5	0.4%	<i>Saxifraga hirsuta</i> x <i>S. spathularis</i>	4	0.3%	<i>Porella platyphylla</i>
5	0.4%	<i>Scutellaria minor</i>	4	0.3%	<i>Rhododendron</i> sp.
5	0.4%	<i>Sedum anglicum</i>	4	0.3%	<i>Ribes</i> sp.
5	0.4%	<i>Senecio vulgaris</i>	4	0.3%	<i>Riccardia chamedryfolia</i>
5	0.4%	<i>Sparganium</i> sp.	4	0.3%	<i>Riccardia palmata</i>
5	0.4%	<i>Sphagnum papillosum</i>	4	0.3%	<i>Tilia</i> sp.
5	0.4%	<i>Trichophorum cespitosum</i>	4	0.3%	<i>Trichostomum brachydontium</i>
5	0.4%	<i>Ulmus minor</i>	4	0.3%	<i>Trifolium dubium</i>
5	0.4%	<i>Vaccinium oxycoccus</i>	4	0.3%	<i>Ulmus</i> sp.
4	0.3%	<i>Alchemilla xanthochlora</i>	4	0.3%	<i>Veronica persica</i>
4	0.3%	<i>Alopecurus geniculatus</i>	4	0.3%	<i>Vinca minor</i>
4	0.3%	<i>Anomodon viticulosus</i>	3	0.2%	<i>Acer</i> sp.
4	0.3%	<i>Asplenium ruta-muraria</i>	3	0.2%	<i>Agrimonia eupatoria</i>
4	0.3%	<i>Bryum capillare</i>	3	0.2%	<i>Agrimonia procera</i>
4	0.3%	<i>Bryum pseudotriquetrum</i>	3	0.2%	<i>Agrostis</i> sp.
4	0.3%	<i>Carex diandra</i>	3	0.2%	<i>Apium inundatum</i>
4	0.3%	<i>Carex pallescens</i>	3	0.2%	<i>Atriplex prostrata</i>
4	0.3%	<i>Cephalanthera longifolia</i>	3	0.2%	<i>Callitriche hamulata</i>
4	0.3%	<i>Chenopodium album</i> agg.	3	0.2%	<i>Calypogeia neesiana</i>
4	0.3%	<i>Cirsium</i> sp.	3	0.2%	<i>Capsella bursa-pastoris</i>
4	0.3%	<i>Elodea canadensis</i>	3	0.2%	<i>Carex otrubae</i>
4	0.3%	<i>Epipactis</i> sp.	3	0.2%	<i>Cedrus</i> sp.
4	0.3%	<i>Equisetum hyemale</i>	3	0.2%	<i>Cephalozia lunulifolia</i>
4	0.3%	<i>Equisetum</i> sp.	3	0.2%	<i>Cephaloziella</i> sp.
4	0.3%	<i>Festuca pratensis</i>	3	0.2%	<i>Cerastium</i> sp.
4	0.3%	<i>Glyceria</i> sp.	3	0.2%	<i>Conium maculatum</i>
4	0.3%	<i>Hypericum calycinum</i>	3	0.2%	<i>Cornus</i> sp.
4	0.3%	<i>Isolepis setacea</i>	3	0.2%	<i>Dactylorhiza majalis</i>
4	0.3%	<i>Jasione montana</i>	3	0.2%	<i>Dicranum bonjeanii</i>
4	0.3%	<i>Larix decidua</i> x <i>L. kaempferi</i>	3	0.2%	<i>Didymodon</i> sp.
4	0.3%	<i>Leucojum aestivum</i>	3	0.2%	<i>Drosera rotundifolia</i>
4	0.3%	<i>Lophocolea fragrans</i>	3	0.2%	<i>Eleocharis uniglumis</i>
4	0.3%	<i>Luma apiculata</i>	3	0.2%	<i>Euphorbia</i> sp.
4	0.3%	<i>Lysichiton americanus</i>	3	0.2%	<i>Gaultheria mucronata</i>
4	0.3%	<i>Malus domestica</i>	3	0.2%	<i>Geranium dissectum</i>
4	0.3%	<i>Mentha arvensis</i>	3	0.2%	<i>Geranium lucidum</i>
4	0.3%	<i>Mentha arvensis</i> x <i>M. aquatica</i>	3	0.2%	<i>Helictotrichon pubescens</i>
4	0.3%	<i>Nardus stricta</i>	3	0.2%	<i>Hesperis matronalis</i>
4	0.3%	<i>Orobanche minor</i>	3	0.2%	<i>Hordeum vulgare</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
3	0.2%	<i>Isolepis cernua</i>	2	0.2%	<i>Berberis darwinii</i>
3	0.2%	<i>Isoethecium</i> sp.	2	0.2%	<i>Berberis vulgaris</i>
3	0.2%	<i>Juglans regia</i>	2	0.2%	<i>Betula pendula</i> x <i>B. pubescens</i>
3	0.2%	<i>Lamiastrum galeobdolon</i> ssp. <i>montanum</i>	2	0.2%	<i>Blackstonia perfoliata</i>
3	0.2%	<i>Lathraea squamaria</i>	2	0.2%	<i>Brachythecium glareosum</i>
3	0.2%	<i>Ligustrum ovalifolium</i>	2	0.2%	<i>Brachythecium</i> sp.
3	0.2%	<i>Linum catharticum</i>	2	0.2%	<i>Brachythecium mildeanum</i>
3	0.2%	<i>Marchantia polymorpha</i>	2	0.2%	<i>Brachypodium pinnatum</i>
3	0.2%	<i>Narcissus pseudonarcissus</i>	2	0.2%	<i>Brachythecium populeum</i>
3	0.2%	<i>Nowellia curvifolia</i>	2	0.2%	<i>Brassica napus</i>
3	0.2%	<i>Persicaria wallichii</i>	2	0.2%	<i>Brassica rapa</i>
3	0.2%	<i>Pinguicula grandiflora</i>	2	0.2%	<i>Butomus umbellatus</i>
3	0.2%	<i>Pinus radiata</i>	2	0.2%	<i>Callitriche hermaphrodica</i>
3	0.2%	<i>Platanus</i> sp.	2	0.2%	<i>Callitriche platycarpa</i>
3	0.2%	<i>Polygala vulgaris</i>	2	0.2%	<i>Calypogeia</i> sp.
3	0.2%	<i>Polygonatum multiflorum</i>	2	0.2%	<i>Calypogeia sphagnicola</i>
3	0.2%	<i>Potentilla</i> sp.	2	0.2%	<i>Campylium protensum</i>
3	0.2%	<i>Racomitrium affine</i>	2	0.2%	<i>Campylium stellatum</i>
3	0.2%	<i>Ranunculus penicillatus</i>	2	0.2%	<i>Cardamine amara</i>
3	0.2%	<i>Rhodobryum roseum</i>	2	0.2%	<i>Carex lasiocarpa</i>
3	0.2%	<i>Rhynchosgiella pumila</i>	2	0.2%	<i>Carex recta</i>
3	0.2%	<i>Rosa rubiginosa</i>	2	0.2%	<i>Ceratodon purpureus</i>
3	0.2%	<i>Scapania irrigua</i>	2	0.2%	<i>Chamaemelum nobile</i>
3	0.2%	<i>Scapania umbrosa</i>	2	0.2%	<i>Chiloscyphus</i> sp.
3	0.2%	<i>Selaginella kraussiana</i>	2	0.2%	<i>Cochlearia anglica</i>
3	0.2%	<i>Sisymbrium officinale</i>	2	0.2%	<i>Cochlearia officinalis</i> agg.
3	0.2%	<i>Sonchus</i> sp.	2	0.2%	<i>Crepis biennis</i>
3	0.2%	<i>Sorbus devoniensis</i>	2	0.2%	<i>Crepis capillaris</i>
3	0.2%	<i>Sphagnum angustifolium</i>	2	0.2%	<i>Cymbalaria muralis</i>
3	0.2%	<i>Sphagnum subsecundum</i>	2	0.2%	<i>Dichodontium pellucidum</i>
3	0.2%	<i>Stellaria palustris</i>	2	0.2%	<i>Dicranum</i> sp.
3	0.2%	<i>Tellima grandiflora</i>	2	0.2%	<i>Didymodon fallax</i>
3	0.2%	<i>Tetraphis pellucida</i>	2	0.2%	<i>Dipsacus fullonum</i>
3	0.2%	<i>Thalictrum minus</i>	2	0.2%	<i>Eleocharis</i> sp.
3	0.2%	<i>Tortula</i> sp.	2	0.2%	<i>Empetrum nigrum</i>
3	0.2%	<i>Trichomanes speciosum</i>	2	0.2%	<i>Eriophorum</i> sp.
3	0.2%	<i>Urtica urens</i>	2	0.2%	<i>Escallonia</i> sp.
2	0.2%	<i>Aethusa cynapium</i>	2	0.2%	<i>Escallonia macrantha</i>
2	0.2%	<i>Aira caryophyllea</i>	2	0.2%	<i>Fissidens viridulus</i>
2	0.2%	<i>Amphidium mougeotti</i>	2	0.2%	<i>Fumaria officinalis</i>
2	0.2%	<i>Aquilegia</i> sp.	2	0.2%	<i>Galium</i> sp.
2	0.2%	<i>Armeria maritima</i>	2	0.2%	<i>Gaultheria</i> sp.
2	0.2%	<i>Asperula cynanchica</i>	2	0.2%	<i>Glyceria notata</i>
2	0.2%	<i>Baldellia ranunculoides</i>	2	0.2%	<i>Griselinia littoralis</i>
2	0.2%	<i>Barbula convoluta</i>	2	0.2%	<i>Gymnostomum aeruginosum</i>
			2	0.2%	<i>Gymnadenia conopsea</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
2	0.2%	<i>Heterocladium flaccidum</i>	2	0.2%	<i>Saxifraga spathularis</i> x <i>S. umbrosa</i>
2	0.2%	<i>Hydrocharis morsus-ranae</i>	2	0.2%	<i>Sedum album</i>
2	0.2%	<i>Hymenophyllum</i> sp.	2	0.2%	<i>Senecio</i> sp.
2	0.2%	<i>Hypericum elodes</i>	2	0.2%	<i>Sequoia</i> sp.
2	0.2%	<i>Hypericum hirsutum</i>	2	0.2%	<i>Sequoia sempervirens</i>
2	0.2%	<i>Jubula hutchinsiae</i>	2	0.2%	<i>Smyrniololus</i> sp.
2	0.2%	<i>Jungermannia gracillima</i>	2	0.2%	<i>Sphagnum girgensohnii</i>
2	0.2%	<i>Laburnum</i> sp.	2	0.2%	<i>Thuja occidentalis</i>
2	0.2%	<i>Lathyrus</i> sp.	2	0.2%	<i>Thymus polytrichus</i>
2	0.2%	<i>Lejeunea cavifolia</i>	2	0.2%	<i>Tripleurospermum maritimum</i>
2	0.2%	<i>Leontodon</i> sp.	2	0.2%	<i>Veronica</i> sp.
2	0.2%	<i>Lepidozia cupressina</i>	2	0.2%	<i>Vicia</i> sp.
2	0.2%	<i>Listera cordata</i>	1	0.1%	<i>Acaena novae-zelandiae</i>
2	0.2%	<i>Lithospermum officinale</i>	1	0.1%	<i>Aira praecox</i>
2	0.2%	<i>Littorella uniflora</i>	1	0.1%	<i>Alchemilla</i> sp.
2	0.2%	<i>Lolium</i> sp.	1	0.1%	<i>Alchemilla glabra</i>
2	0.2%	<i>Lysimachia punctata</i>	1	0.1%	<i>Allium</i> sp.
2	0.2%	<i>Narcissus</i> sp.	1	0.1%	<i>Alnus cordata</i>
2	0.2%	<i>Oenanthe fluviatilis</i>	1	0.1%	<i>Anisantha sterilis</i>
2	0.2%	<i>Origanum vulgare</i>	1	0.1%	<i>Antennaria dioica</i>
2	0.2%	<i>Orthotrichum anomalum</i>	1	0.1%	<i>Aphanolejeunea microscopica</i>
2	0.2%	<i>Orthotrichum rupestre</i>	1	0.1%	<i>Arctium lappa</i>
2	0.2%	<i>Parnassia palustris</i>	1	0.1%	<i>Asplenium</i> sp.
2	0.2%	<i>Pedicularis palustris</i>	1	0.1%	<i>Aucuba japonica</i>
2	0.2%	<i>Persicaria campanulata</i>	1	0.1%	<i>Barbilophozia</i> sp.
2	0.2%	<i>Petasites</i> sp.	1	0.1%	<i>Barbula</i> sp.
2	0.2%	<i>Phleum bertolonii</i>	1	0.1%	<i>Barbula unguiculata</i>
2	0.2%	<i>Pilosella officinarum</i>	1	0.1%	<i>Barbarea vulgaris</i>
2	0.2%	<i>Pimpinella saxifraga</i>	1	0.1%	<i>Berberis</i> sp.
2	0.2%	<i>Plagiochila exigua</i>	1	0.1%	<i>Bidens cernua</i>
2	0.2%	<i>Platanthera</i> sp.	1	0.1%	<i>Blindia acuta</i>
2	0.2%	<i>Platanthera chlorantha</i>	1	0.1%	<i>Brachythecium albicans</i>
2	0.2%	<i>Polystichum aculeatum</i> x <i>P. setiferum</i>	1	0.1%	<i>Brachythecium plumosum</i>
2	0.2%	<i>Polytrichum strictum</i>	1	0.1%	<i>Bromus hordeaceus</i>
2	0.2%	<i>Polytrichum</i> sp.	1	0.1%	<i>Callitriche brutia</i>
2	0.2%	<i>Populus nigra</i> var 'Italica'	1	0.1%	<i>Calypstrochaeta apiculata</i>
2	0.2%	<i>Porella arboris-vitae</i>	1	0.1%	<i>Campyliadelphus elodes</i>
2	0.2%	<i>Primula vulgaris</i> x <i>P. veris</i>	1	0.1%	<i>Campanula latifolia</i>
2	0.2%	<i>Racomitrium aquaticum</i>	1	0.1%	<i>Carex aquatilis</i>
2	0.2%	<i>Racomitrium lanuginosum</i>	1	0.1%	<i>Carex caryophyllaea</i>
2	0.2%	<i>Ranunculus omiophyllus</i>	1	0.1%	<i>Carex dioica</i>
2	0.2%	<i>Rhynchospora alba</i>	1	0.1%	<i>Carex hostiana</i>
2	0.2%	<i>Sagina nodosa</i>	1	0.1%	<i>Carex limosa</i>
2	0.2%	<i>Salix viminalis</i> x <i>S. caprea</i>	1	0.1%	<i>Carex spicata</i>
			1	0.1%	<i>Carlina vulgaris</i>

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
1	0.1%	<i>Catabrosa aquatica</i>	1	0.1%	<i>Hyacinthoides non-scripta</i> x <i>H. hispanica</i>
1	0.1%	<i>Cedrus atlantica</i>			
1	0.1%	<i>Cedrus deodara</i>	1	0.1%	<i>Hydrangea</i> sp.
1	0.1%	<i>Cephalozia connivens</i>	1	0.1%	<i>Hygrohypnum ochraceum</i>
1	0.1%	<i>Cephalozia leucantha</i>	1	0.1%	<i>Hygroamblystegium tenax</i>
1	0.1%	<i>Chelidonium majus</i>	1	0.1%	<i>Ilex aquifolium</i> x <i>I. perado</i>
1	0.1%	<i>Chenopodium bonus-henricus</i>	1	0.1%	<i>Impatiens parviflora</i>
1	0.1%	<i>Chenopodium</i> sp.	1	0.1%	<i>Impatiens</i> sp.
1	0.1%	<i>Chrysanthemum segetum</i>	1	0.1%	<i>Juncus squarrosus</i>
1	0.1%	<i>Claytonia sibirica</i>	1	0.1%	<i>Jungermannia atrovirens</i>
1	0.1%	<i>Clematis</i> sp.	1	0.1%	<i>Knautia arvensis</i>
1	0.1%	<i>Clinopodium ascendens</i>	1	0.1%	<i>Kurzia pauciflora</i>
1	0.1%	<i>Coronopus didymus</i>	1	0.1%	<i>Laburnum anagyroides</i>
1	0.1%	<i>Coronopus squamatus</i>	1	0.1%	<i>Lactuca serriola</i>
1	0.1%	<i>Cortaderia selloana</i>	1	0.1%	<i>Lamium album</i>
1	0.1%	<i>Corylus maxima</i>	1	0.1%	<i>Lamium purpureum</i>
1	0.1%	<i>Cratoneuron filicinum</i>	1	0.1%	<i>Lamium purpureum</i>
1	0.1%	<i>Cupressus macrocarpa</i>	1	0.1%	<i>Lemna</i> sp.
1	0.1%	<i>Cytisus</i> sp.	1	0.1%	<i>Lemna gibba</i>
1	0.1%	<i>Dicranella</i> sp.	1	0.1%	<i>Leontodon hispidus</i>
1	0.1%	<i>Dicranella varia</i>	1	0.1%	<i>Lepidozia pearsonii</i>
1	0.1%	<i>Didymodon insulanus</i>	1	0.1%	<i>Leucanthemum</i> sp.
1	0.1%	<i>Didymodon sinuosus</i>	1	0.1%	<i>Ligustrum</i> sp.
1	0.1%	<i>Doronicum pardalianches</i>	1	0.1%	<i>Lophocolea</i> sp.
1	0.1%	<i>Drepanocladus aduncus</i>	1	0.1%	<i>Lophozia ventricosa</i>
1	0.1%	<i>Dryopteris</i> sp.	1	0.1%	<i>Malva moschata</i>
1	0.1%	<i>Dumortiera hirsuta</i>	1	0.1%	<i>Meconopsis cambrica</i>
1	0.1%	<i>Eleodea</i> sp.	1	0.1%	<i>Metzgeria</i> sp.
1	0.1%	<i>Elymus</i> sp.	1	0.1%	<i>Mimulus guttatus</i>
1	0.1%	<i>Elytrigia juncea</i>	1	0.1%	<i>Mimulus moschatus</i>
1	0.1%	<i>Filago vulgaris</i>	1	0.1%	<i>Mnium marginatum</i>
1	0.1%	<i>Fissidens incurvus</i>	1	0.1%	<i>Montia fontana</i>
1	0.1%	<i>Fissidens polyphyllus</i>	1	0.1%	<i>Mylia taylori</i>
1	0.1%	<i>Fontinalis squamosa</i>	1	0.1%	<i>Myriophyllum alterniflorum</i>
1	0.1%	<i>Fumaria</i> sp.	1	0.1%	<i>Myriophyllum</i> sp.
1	0.1%	<i>Galeopsis</i> sp.	1	0.1%	<i>Myriophyllum spicatum</i>
1	0.1%	<i>Gaultheria shallon</i>	1	0.1%	<i>Neckera</i> sp.
1	0.1%	<i>Geranium columbinum</i>	1	0.1%	<i>Odontoschisma sphagni</i>
1	0.1%	<i>Grimmia trichophylla</i>	1	0.1%	<i>Orchis</i> sp.
1	0.1%	<i>Harpalejeunea mollerii</i>	1	0.1%	<i>Orobancha</i> sp.
1	0.1%	<i>Helleborus viridis</i>	1	0.1%	<i>Orthotrichum pulchellum</i>
1	0.1%	<i>Holodiscus discolor</i>	1	0.1%	<i>Pellia neesiana</i>
1	0.1%	<i>Hordeum</i> sp.	1	0.1%	<i>Pentaglottis sempervirens</i>
1	0.1%	<i>Hordeum murinum</i>	1	0.1%	<i>Persicaria amphibia</i>
1	0.1%	<i>Hottonia palustris</i>	1	0.1%	<i>Persicaria bistorta</i>
1	0.1%	<i>Hyacinthoides hispanica</i>			

Number of sites	Percentage of sites	Species name	Number of sites	Percentage of sites	Species name
1	0.1%	<i>Philadelphus</i> sp.	1	0.1%	<i>Senecio erucifolius</i>
1	0.1%	<i>Philadelphus coronarius</i>	1	0.1%	<i>Senecio squalidus</i>
1	0.1%	<i>Philonotis fontana</i>	1	0.1%	<i>Sequoiadendron giganteum</i>
1	0.1%	<i>Phleum</i> sp.	1	0.1%	<i>Silene vulgaris</i>
1	0.1%	<i>Phyllostachys</i> sp.	1	0.1%	<i>Sisyrinchium bermudiana</i>
1	0.1%	<i>Physcomitrium pyriforme</i>	1	0.1%	<i>Sium latifolium</i>
1	0.1%	<i>Pinguicula lusitanica</i>	1	0.1%	<i>Solanum crispum</i>
1	0.1%	<i>Pinguicula vulgaris</i>	1	0.1%	<i>Solanum nigrum</i>
1	0.1%	<i>Pinus nigra</i>	1	0.1%	<i>Sorbus intermedia</i>
1	0.1%	<i>Pinus pinaster</i>	1	0.1%	<i>Sorbus</i> sp.
1	0.1%	<i>Pinus wallichiana</i>	1	0.1%	<i>Sparganium natans</i>
1	0.1%	<i>Pittosporum</i> sp.	1	0.1%	<i>Sphagnum compactum</i>
1	0.1%	<i>Plantago media</i>	1	0.1%	<i>Sphagnum contortum</i>
1	0.1%	<i>Plantago</i> sp.	1	0.1%	<i>Sphagnum magellanicum</i>
1	0.1%	<i>Pleuridium acuminatum</i>	1	0.1%	<i>Sphagnum pulchrum</i>
1	0.1%	<i>Poa compressa</i>	1	0.1%	<i>Sphagnum tenella</i>
1	0.1%	<i>Polygonatum</i> sp.	1	0.1%	<i>Spiraea douglasii</i>
1	0.1%	<i>Polygonum</i> sp.	1	0.1%	<i>Stachys arvensis</i>
1	0.1%	<i>Polytrichum piliferum</i>	1	0.1%	<i>Stachys officinalis</i>
1	0.1%	<i>Polypodium</i> sp.	1	0.1%	<i>Stachys sylvatica</i> x <i>S. palustris</i>
1	0.1%	<i>Porella cordaena</i>	1	0.1%	<i>Straminergon stramineum</i>
1	0.1%	<i>Potentilla</i> x <i>mixta</i>	1	0.1%	<i>Syntrichia intermedia</i>
1	0.1%	<i>Prunus mahaleb</i>	1	0.1%	<i>Syntrichia laevipila</i>
1	0.1%	<i>Prunus sargentii</i>	1	0.1%	<i>Taxiphyllum wissgrillii</i>
1	0.1%	<i>Pseudephemerum nitidum</i>	1	0.1%	<i>Thelypteris palustris</i>
1	0.1%	<i>Ptilium crista-castrensis</i>	1	0.1%	<i>Tortula muralis</i>
1	0.1%	<i>Pyrola minor</i>	1	0.1%	<i>Triglochin palustre</i>
1	0.1%	<i>Pyrola rotundifolia</i>	1	0.1%	<i>Triticum</i> sp.
1	0.1%	<i>Quercus suber</i>	1	0.1%	<i>Tsuga</i> sp.
1	0.1%	<i>Racomitrium ericoides</i>	1	0.1%	<i>Vaccinium vitis-idaea</i>
1	0.1%	<i>Ranunculus hederaceus</i>	1	0.1%	<i>Valeriana dioica</i>
1	0.1%	<i>Ranunculus sceleratus</i>	1	0.1%	<i>Verbena officinalis</i>
1	0.1%	<i>Rhynchosstegiella tenella</i>	1	0.1%	<i>Verbascum thapsus</i>
1	0.1%	<i>Rhytidadelphus</i> sp.	1	0.1%	<i>Veronica anagallis-aquatica</i>
1	0.1%	<i>Riccardia latifrons</i>	1	0.1%	<i>Viburnum</i> sp.
1	0.1%	<i>Robinia pseudoacacia</i>	1	0.1%	<i>Vinca</i> sp.
1	0.1%	<i>Rosa arvensis</i> x <i>R. canina</i>	1	0.1%	<i>Vinca major</i>
1	0.1%	<i>Rubus</i> sp.	1	0.1%	<i>Viola hirta</i>
1	0.1%	<i>Sagina</i> sp.	1	0.1%	<i>Vulpia bromoides</i>
1	0.1%	<i>Salix cinerea</i> x <i>S. caprea</i>	1	0.1%	<i>Warnstorfia fluitans</i>
1	0.1%	<i>Scapania aspera</i>	1	0.1%	<i>Weissia controversa</i>
1	0.1%	<i>Schistidium apocarpum</i>	1	0.1%	<i>Zygodon rupestris</i>
1	0.1%	<i>Scrophularia umbrosa</i>	1	0.1%	<i>Zygodon stirtonii</i>

APPENDIX 4: CONSERVATION SCORES

Appendix 4 shows the conservation score for each of the 1,320 sites included in the dataset. Data were not available in all assessment categories for some sites: an 'x' is used to indicate these missing values. A column in the appendix table indicates how many data values are missing for a particular site. Where sites have been incorporated from previous studies, as many as 9 of the 15 assessment categories are missing data; for sites missing data for at least 8 assessment categories, no conservation score was calculated (N/A on table). For sites that had fewer than 8 missing assessment categories, the maximum number of available points was adjusted to compensate for the missing data.

Site No.	Woodland Name	County	Max. Score	Vascular plant richness				Bryophyte richness			Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj s-n habitats	Hydrological Features	Woody debris + Dead Wood	Manmade features	Annex Woodland	Tufa Springs	Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	1	1	1	1	2	1	33					
1	Ballynabarny Wood	Wexford	3	1	2	0	3	1	3	3	1	0	1	1	1	1	1	1	1	1	1	1	0	21	0	33		33	63.6	
2	Clone Fox Covert	Wexford	1	1	2	1	3	1	2	1	1	0	0	1	1	0	0	1	1	0	0	0	0	15	0	33		33	45.5	
3	Courtown Dunes/Glen	Wexford	4	1	0	2	3	1	5	2	1	1	1	1	1	0	0	1	1	0	0	0	23	0	33		33	69.7		
4	Killoughrum Forest	Wexford	4	2	2	0	3	2	4	3	1	0	1	1	1	1	1	1	1	1	1	2	0	26	0	33		33	78.8	
5	Oaklands	Wexford	4	1	2	0	3	2	4	0	1	0	1	0	1	0	1	0	1	0	0	0	19	0	33		33	57.6		
7	Camolin	Wexford	3	1	1	1	2	0	4	2	1	0	1	0	1	0	1	1	1	0	1	1	0	18	0	33		33	54.5	
8	Baggot's Wood	Carlow	1	1	1	1	2	1	2	1	1	0	1	1	1	1	1	1	1	1	1	1	0	15	0	33		33	45.5	
9	Bahana	Carlow	2	1	1	0	2	0	4	1	1	0	1	1	1	0	0	1	1	1	0	0	15	0	33		33	45.5		
10	Clogheristick Wood	Carlow	3	1	2	2	2	0	3	1	1	0	1	0	1	0	1	1	1	0	1	1	0	18	0	33		33	54.5	
12	Oakpark	Carlow	2	1	0	1	3	0	4	1	1	1	1	1	1	1	1	1	1	0	0	0	17	0	33		33	51.5		
14	Drummond Wood	Carlow	3	1	2	0	1	1	3	1	1	1	1	1	0	1	1	0	1	1	1	0	17	0	33		33	51.5		
15	Borris	Carlow	4	1	2	2	3	1	5	3	1	0	1	1	1	1	1	1	1	1	1	0	26	0	33		33	78.8		
17	Thomastown	Kilkenny	2	2	2	0	3	2	2	3	1	0	1	0	1	0	1	0	1	0	0	0	19	0	33		33	57.6		
18	Ballykeefe Wood	Kilkenny	4	1	2	0	3	0	5	1	1	0	0	1	1	0	0	1	1	0	0	0	19	0	33		33	57.6		
19	Ballyhighland	Wexford	2	1	1	1	0	0	4	0	1	0	0	1	1	0	0	1	1	0	0	0	12	0	33		33	36.4		
20	Brownstown Wood	Kilkenny	2	2	0	1	3	0	4	1	1	1	1	1	1	1	1	2	0	20	0	33	60.6							
22	Fiddown	Kilkenny	1	1	2	1	0	0	4	1	0	0	1	1	1	1	1	1	1	0	14	0	33	42.4						
26	Carrickduff Wood	Carlow	3	1	0	2	1	1	4	0	1	1	1	1	1	1	1	1	0	18	0	33	54.5							
27	Dovegrove Callows	Offaly	2	1	2	0	3	2	3	1	0	1	1	1	1	1	0	0	18	0	33	54.5								
28	Clonfinlough Esker	Offaly	2	1	2	0	3	0	1	1	1	1	0	1	1	1	0	0	14	0	33	42.4								
30	Woodville	Offaly	3	1	1	1	1	1	5	1	1	0	0	0	1	0	0	16	0	33	48.5									
31	Cloghan Demesne Bog and Wood	Offaly	4	1	2	2	3	0	4	1	1	1	0	1	1	0	0	21	0	33	63.6									
33	Camcor Wood/Glinsk	Offaly	4	1	2	1	3	2	2	1	0	1	1	0	1	1	0	20	0	33	60.6									
34	Quakerstown	Offaly	1	1	2	1	3	0	3	1	0	1	1	1	1	1	0	16	0	33	48.5									
35	Clorhane Wood	Offaly	3	1	2	0	2	2	4	1	0	1	1	1	1	0	0	18	0	33	54.5									
36	Lough Coura	Offaly	1	1	2	0	3	1	2	2	1	1	1	0	1	0	0	16	0	33	48.5									
37	Curraduff	Wexford	1	1	2	0	3	0	3	1	0	1	1	0	0	1	0	14	0	33	42.4									
38	Graiguebeg	Wexford	1	1	2	0	3	0	0	1	0	1	1	1	1	1	0	13	0	33	39.4									
48	Jerpoint Abbey	Kilkenny	4	1	2	0	3	0	2	1	0	0	0	0	1	0	0	14	0	33	42.4									
49	Grenan Wood	Kilkenny	3	1	2	2	2	1	4	0	1	1	1	1	1	1	0	21	0	33	63.6									
51	Kilfane House	Kilkenny	3	1	2	0	3	0	1	1	1	0	1	1	0	0	1	14	0	33	42.4									
53	Kilcullen	Kilkenny	2	1	2	0	3	0	2	1	0	0	1	1	1	0	0	14	0	33	42.4									
58	Cullentragh	Kilkenny	2	1	2	1	2	0	3	2	1	1	1	1	1	1	0	19	0	33	57.6									
61	Cullaun	Kilkenny	2	1	2	1	3	0	2	1	1	1	1	0	1	0	0	16	0	33	48.5									
65	Bohermore	Carlow	1	1	2	1	2	0	1	1	1	0	1	0	1	0	0	12	0	33	36.4									
69	Toberbride	Carlow	2	1	2	0	3	1	3	2	1	0	1	1	0	0	0	17	0	33	51.5									
73	Tinnahinch	Carlow	2	1	0	1	1	0	1	0	1	0	1	1	1	1	0	11	0	33	33.3									
74	Knockeen	Carlow	2	0	2	2	3	1	1	1	0	0	0	0	1	0	0	13	0	33	39.4									
75	Knockduff	Carlow	1	1	2	0	3	0	2	1	0	1	1	1	0	0	0	13	0	33	39.4									

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score		Missing values		Max available		%Score		
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	1	1	1	1	2	1	33														
76	Ballybeg Big	Carlow		1	1	2	0	3	0	1	0	0	1	1	0	1	0	0	1	0	1	0	0	0	11	0	33										33.3		
78	Ballintemple	Carlow		1	1	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	6	0	33										18.2		
79	Doon Demesne East	Offaly		2	1	2	2	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	10	0	33											30.3		
80	Doon Demesne West	Offaly		2	2	2	1	2	1	3	1	1	1	0	0	1	0	0	1	0	0	1	0	0	17	0	33											51.5	
81	Clonascra	Offaly		1	1	2	0	3	0	1	1	0	1	1	0	1	1	0	1	0	1	0	0	12	0	33											36.4		
82	Clongawny More	Offaly		3	2	2	0	3	1	1	1	0	1	0	1	0	0	1	0	1	0	1	0	15	0	33											45.5		
83	Taylor's Cross	Offaly		1	1	2	2	3	0	1	1	0	0	1	0	1	0	1	0	1	0	1	0	13	0	33											39.4		
84	Boolinarig	Offaly		3	1	2	0	3	0	4	1	0	1	0	1	0	0	0	0	0	0	0	0	15	0	33											45.5		
85	Ballyhealy (Offaly)	Offaly		2	1	2	0	3	1	2	1	1	0	0	1	0	1	1	0	1	0	1	0	15	0	33											45.5		
86	Clooneen (Offaly)	Offaly		3	2	2	1	3	1	4	2	1	1	0	0	1	0	1	0	1	0	1	0	21	0	33											63.6		
89	Ballincor Demesne Bogwood	Offaly		1	1	2	2	3	0	3	2	1	1	1	0	1	0	1	0	1	0	0	18	0	33												54.5		
91	Big Wood (West Offaly)	Offaly		1	2	x	x	x	1	4	1	0	0	1	1	1	1	0	1	1	1	0	12	3	26												46.2		
95	Drummin (Red Bog)	Carlow		1	1	2	0	3	0	2	1	0	0	0	0	0	1	0	0	1	0	0	11	0	33												33.3		
96	Kyleadahir Wood	Kilkenny		4	1	2	1	3	0	5	1	1	0	1	0	1	0	1	0	1	0	1	0	20	0	33												60.6	
100	Tomnafunshogue	Wexford		3	2	0	0	3	0	1	2	1	0	1	1	1	1	1	1	1	1	1	0	16	0	33												48.5	
102	Ballycrystal	Wexford		1	1	2	1	3	0	4	2	1	0	1	0	1	0	1	0	1	1	1	0	18	0	33												54.5	
103	Bolamore	Wexford		1	1	2	0	2	0	2	1	1	0	1	0	1	0	0	1	0	0	1	0	12	0	33												36.4	
106	Tombrick Lower	Wexford		1	1	1	1	3	0	2	1	1	0	0	1	0	0	1	1	1	1	1	0	14	0	33												42.4	
108	Troyswood	Kilkenny		4	1	1	1	3	0	2	1	1	0	1	0	1	0	1	0	1	1	1	0	17	0	33												51.5	
109	Jenkinstown Park	Kilkenny		3	1	2	2	3	0	1	1	0	0	0	1	1	0	0	1	1	1	0	15	0	33													45.5	
110	Ballyrafton	Kilkenny		2	1	2	2	2	1	3	0	1	0	1	0	1	0	0	0	0	0	0	15	0	33													45.5	
112	Maddockstown/Nore Cottage	Kilkenny		3	1	2	2	1	1	3	1	1	0	1	1	1	1	1	1	1	0	0	18	0	33													54.5	
113	High Rath	Kilkenny		2	1	2	0	3	0	1	1	0	1	1	0	1	0	1	0	1	0	0	13	0	33													39.4	
114	Gowran	Kilkenny		3	1	2	0	3	0	3	1	1	0	1	1	0	1	1	1	1	1	1	0	18	0	33												54.5	
116	Fanningstown Wood	Kilkenny		2	1	2	1	3	0	2	1	1	0	1	1	1	1	1	1	1	1	0	16	0	33													48.5	
117	Mountain Grove	Kilkenny		3	1	1	1	0	0	4	0	1	0	1	0	1	0	1	0	1	0	1	0	13	0	33												39.4	
122	Creakan Lower	Wexford		1	1	2	1	2	0	1	1	0	1	1	1	1	1	1	1	1	1	0	13	0	33													39.4	
123	Stokestown Bridge (Dunganstown)	Wexford		2	2	1	1	3	0	1	2	0	1	0	0	1	0	0	1	0	0	1	0	14	0	33												42.4	
124	Ballyleigh	Wexford		1	2	2	1	3	0	1	3	0	0	1	0	1	0	1	1	1	1	1	0	16	0	33												48.5	
125	Ballynacoolagh	Wexford		1	1	2	1	2	0	3	1	1	0	1	1	0	1	1	0	1	0	1	0	15	0	33												45.5	
126	Curraun	Wexford		1	1	2	0	3	0	3	1	0	0	1	0	0	1	1	1	0	1	0	1	14	0	33												42.4	
127	Warrington	Kilkenny		3	1	2	1	2	2	2	1	1	0	1	0	1	0	1	0	1	0	1	0	17	0	33												51.5	
128	Brown's Wood	Kilkenny		2	1	1	1	3	1	4	2	1	0	1	1	1	1	1	1	1	1	1	0	20	0	33												60.6	
130	Monarche Commons 2	Kilkenny		1	1	2	1	1	0	3	0	0	0	1	1	1	0	1	1	1	1	0	12	0	33													36.4	
131	Greatwood	Kilkenny		2	1	1	1	3	0	1	1	1	0	1	1	1	0	1	1	1	1	0	14	0	33													42.4	
135	Coill na Fhaltaigh	Kilkenny		1	1	1	2	3	0	4	0	1	1	0	1	1	0	1	1	1	1	1	0	17	0	33												51.5	
136	Rossenarra	Kilkenny		3	1	2	2	3	0	2	1	1	1	1	1	1	1	1	1	1	0	0	19	0	33													57.6	
137	Knockadrina	Kilkenny		4	2	2	2	3	0	4	1	1	0	1	0	1	0	1	0	1	0	0	21	0	33														63.6
138	Castlemorris Demesne	Kilkenny		2	1	2	1	3	0	1	0	1	0	1	0	1	0	1	1	1	1	0	0	14	0	33													42.4

Site No.	Woodland Name	County	Max. Score	Ecological Features																	Score	Missing values	Max available	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				Vascular plant richness	Bryophyte richness	Free Regeneration	Horizontal Diversity	Native Basal Area	Notable Species Area	Native Woodland Types	1840s	Adj'n habitats	Hydrological Features	Woody debris + Dead Wood	Manmade features	Annex Woodland	Tufa Springs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs	Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33													
199	Kilmacow	Kilkenny		2	1	2	0	2	0	4	2	1	0	1	0	1	0	1	1	0	1	1	0	17	0	33						33	51.5
200	Ballytobin/Ballaghtobin	Kilkenny		4	1	2	2	3	0	4	1	1	0	1	0	1	0	1	1	0	1	1	0	21	0	33						33	63.6
201	Foulkscourt	Kilkenny		3	1	1	1	3	0	3	1	0	0	1	0	0	0	0	0	0	0	0	0	14	0	33						33	42.4
203	Coolroebeeg	Kilkenny		2	2	2	0	3	0	3	1	0	1	1	1	1	1	0	0	0	0	0	0	17	0	33						33	51.5
204	Shankill	Kilkenny		4	1	2	0	3	0	3	2	1	0	1	0	1	0	1	0	0	0	0	0	18	0	33						33	54.5
205	Raheendonore	Kilkenny		1	1	1	1	3	0	3	1	0	0	1	1	1	1	1	0	15	0	33										33	45.5
206	Ballinrush	Carlow		1	1	2	0	3	0	3	1	0	0	0	0	1	0	0	0	12	0	33										33	36.4
208	Crane Bridge	Wexford		2	1	1	1	3	0	2	1	1	0	1	1	1	1	1	0	16	0	33										33	48.5
209	Mackmine Wood	Wexford		3	1	2	0	3	0	2	2	0	0	1	1	1	1	1	0	17	0	33										33	51.5
210	Ballynahillen	Wexford		1	1	1	0	3	0	1	1	1	0	0	1	1	1	1	0	12	0	33										33	36.4
211	Newtown Lower	Wexford		4	1	2	2	3	0	3	2	1	0	1	1	1	1	1	0	22	0	33										33	66.7
213	Seskinnamadra	Carlow		2	1	1	1	3	1	2	1	0	0	1	1	0	1	0	15	0	33											33	45.5
219	Ballypierce	Carlow		3	1	2	0	3	0	4	2	0	0	1	1	1	1	1	0	19	0	33										33	57.6
221	Kilmacoliver	Kilkenny		1	1	2	2	3	0	3	1	1	0	1	1	0	0	0	16	0	33											33	48.5
223	Johnswell	Kilkenny		1	1	2	0	3	0	2	2	1	0	1	1	1	1	0	15	0	33											33	45.5
225	Newrath	Kilkenny		3	1	2	1	3	0	3	2	1	0	1	1	1	1	0	0	19	0	33										33	57.6
226	Skehana	Kilkenny		2	2	2	0	2	0	3	1	1	0	1	0	0	0	0	14	0	33											33	42.4
227	Lisdowney Wood	Kilkenny		1	1	1	1	3	1	3	1	1	0	1	1	0	0	0	15	0	33											33	45.5
228	Crumlin/Tulla	Offaly		1	1	0	1	3	0	1	1	0	0	0	1	1	1	0	11	0	33											33	33.3
229	Castle Bernard Demense	Offaly		3	2	1	2	2	0	4	0	1	0	1	0	1	1	0	18	0	33											33	54.5
230	Ballymack	Kilkenny		2	1	2	1	3	0	2	1	0	0	1	0	1	0	0	14	0	33											33	42.4
234	Monassa	Kilkenny		3	1	2	2	3	0	2	1	1	0	0	1	1	0	0	17	0	33											33	51.5
236	Flagmount North	Kilkenny		2	1	2	1	3	0	1	1	0	1	0	0	1	0	0	13	0	33											33	39.4
237	Broughal	Offaly		1	1	2	0	3	0	4	1	1	1	0	0	1	0	0	15	0	33											33	45.5
238	Barnaboy	Offaly		1	1	2	0	3	0	3	0	0	1	0	0	0	0	0	11	0	33											33	33.3
240	Clonmacnoise	Offaly		1	1	2	0	3	1	0	1	0	1	1	0	1	0	0	12	0	33											33	36.4
241	Clonassy Wood	Kilkenny		1	1	2	0	3	0	3	1	1	0	0	0	1	0	0	13	0	33											33	39.4
242	Grantstown Wood	Laois		4	2	1	1	2	1	4	1	0	1	1	1	0	1	0	20	0	33											33	60.6
245	Dunamase Woods	Laois		1	1	1	2	1	2	4	1	1	0	0	0	1	0	0	15	0	33											33	45.5
246	Rock of Dunamase	Laois		1	1	2	0	3	2	1	1	1	1	0	1	1	0	0	15	0	33											33	45.5
249	Clopook Wood	Laois		2	1	2	1	0	1	1	1	1	0	0	0	1	0	0	11	0	33											33	33.3
250	Clopook Valley	Laois		4	2	1	1	3	0	2	1	1	1	1	0	1	1	0	19	0	33											33	57.6
251	Timahoe Eskers	Laois		1	2	2	0	3	0	4	1	1	0	1	1	1	0	0	17	0	33											33	51.5
252	Clonaslee Eskers	Laois		1	1	0	1	3	0	4	1	1	0	0	1	1	0	0	14	0	33											33	42.4
253	Kilteale Hill	Laois		2	1	2	0	3	1	3	1	1	0	0	0	1	0	0	15	0	33											33	45.5
254	Knockbawn	Laois		4	2	2	0	3	1	4	2	0	1	1	1	1	0	0	22	0	33											33	66.7
255	Morton's Grove	Laois		3	2	2	1	3	1	4	1	1	1	1	0	1	1	0	22	0	33											33	66.7
256	Coolnamony	Laois		3	2	2	2	3	1	3	1	0	1	1	1	1	1	0	22	0	33											33	66.7
257	Capard	Laois		2	2	2	0	3	0	2	1	1	1	1	1	1	1	0	17	0	33											33	51.5

Site No.	Woodland Name	County	Max. Score	Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj'n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score																		Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33					
258	Brittas	Laois		2	2	1	1	1	0	1	1	1	1	1	1	1	0	15	0	33	45.5			
259	Garryhinch Demesne	Laois		4	1	1	1	1	2	1	1	1	0	1	1	1	0	0	16	0	33	48.5		
260	Ballyfin Demesne	Laois		3	2	2	2	3	0	4	2	1	1	1	0	1	1	0	23	0	33	69.7		
262	Rathcoffey	Laois		4	1	2	0	3	1	3	1	0	0	1	0	1	0	0	17	0	33	51.5		
263	Vicarstown	Laois		3	2	1	1	3	0	3	1	1	1	1	0	1	0	0	18	0	33	54.5		
265	Ballhuppahane	Laois		4	2	2	1	3	0	2	2	0	1	1	1	1	1	0	21	0	33	63.6		
266	Cush Upper	Laois		3	1	2	0	3	0	2	1	0	1	1	1	1	0	0	16	0	33	48.5		
268	Cappagh North	Laois		3	1	2	0	3	0	2	1	0	1	1	0	1	0	0	15	0	33	45.5		
269	Glenmalyre Demesne	Laois		3	1	2	1	3	0	1	2	1	0	1	0	1	1	0	17	0	33	51.5		
270	Ballybeg Mill	Wexford		2	1	2	0	3	0	1	2	0	1	1	1	1	1	0	16	0	33	48.5		
273	Barkmill	Laois		3	1	2	0	3	0	0	1	0	0	1	0	1	0	0	12	0	33	36.4		
274	Bughorn	Laois		2	1	2	0	3	0	2	1	0	1	1	1	0	0	0	14	0	33	42.4		
275	Ballina	Laois		1	1	2	1	2	1	2	1	0	1	1	0	1	0	0	14	0	33	42.4		
276	Maidenhead	Laois		2	1	2	1	3	0	3	1	1	0	1	1	1	0	0	17	0	33	51.5		
277	Ashfield	Laois		2	1	2	1	1	0	2	2	1	0	1	0	1	0	0	14	0	33	42.4		
278	Derrykearn	Laois		2	1	2	1	3	1	2	1	0	1	1	0	1	0	0	16	0	33	48.5		
280	Kilcruise	Laois		3	1	2	1	3	0	3	1	1	0	1	1	1	0	0	18	0	33	54.5		
281	Kilkoke	Laois		3	1	2	0	3	1	2	1	1	0	1	0	1	0	0	16	0	33	48.5		
282	Castledurrow Demesne	Laois		2	1	2	2	3	1	0	1	1	0	1	0	1	0	0	15	0	33	45.5		
283	Dunmore Demesne	Laois		3	1	2	0	2	0	5	0	1	0	1	1	1	0	0	17	0	33	51.5		
284	Course Wood	Laois		3	1	2	2	1	2	1	1	1	0	1	0	1	0	0	16	0	33	48.5		
286	Knocknatrina Wood	Laois		3	2	2	1	0	1	4	0	1	0	1	0	0	0	0	15	0	33	45.5		
287	Knockbeg College	Laois		2	1	2	1	3	0	2	1	0	0	1	0	1	1	0	15	0	33	45.5		
289	Crush Wood	Laois		1	1	2	0	3	0	1	1	0	0	0	1	0	0	0	10	0	33	30.3		
290	Warren Hill	Laois		3	1	0	2	1	0	4	0	1	0	1	0	1	0	0	14	0	33	42.4		
294	Scotchcrath House	Laois		2	1	1	1	1	0	1	0	1	0	0	1	0	0	0	9	0	33	27.3		
296	Corbally	Laois		2	1	2	1	3	0	3	1	1	1	1	0	1	0	0	17	0	33	51.5		
297	Killeany	Laois		1	1	2	1	3	0	2	1	0	1	0	1	1	0	0	14	0	33	42.4		
300	Ballaghmore Upper	Laois		1	1	2	0	2	0	2	1	1	0	1	0	1	1	0	13	0	33	39.4		
302	Garryricken South	Kilkenny		4	1	2	1	3	0	3	2	1	0	0	1	1	0	0	19	0	33	57.6		
303	Harperstown	Wexford		1	1	2	2	3	0	0	1	1	1	1	1	1	1	0	16	0	33	48.5		
304	Garrylough Lower	Wexford		2	1	2	0	3	0	2	1	0	0	1	1	1	1	0	15	0	33	45.5		
305	Pollfur Bridge Wood	Wexford		2	1	2	2	3	0	0	1	0	0	1	0	0	1	0	13	0	33	39.4		
307	Donore House Wood	Laois		1	1	1	1	3	1	1	1	1	0	1	0	1	1	0	14	0	33	42.4		
308	Barleagh Wood	Kilkenny		1	1	2	0	2	0	4	0	1	0	1	1	1	0	0	14	0	33	42.4		
309	Emmel West	Offaly		1	1	2	0	2	0	1	1	0	1	1	0	0	0	0	10	0	33	30.3		
310	Coolaphuca	Carlow		4	1	2	2	3	0	4	1	1	1	1	1	1	1	0	23	0	33	69.7		
311	Barnadown Wood	Wexford		1	1	2	0	2	0	0	0	1	0	0	0	0	0	0	7	0	33	21.2		
313	Kilballyskea Bog	Offaly		1	1	1	0	3	0	1	1	0	1	0	0	1	0	0	10	0	33	30.3		

Site No.	Woodland Name	County	Max. Score	Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj s-n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score Missing values Max available %Score																		
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33		100.0	
316	Ballynattin	Carlow		2	2	2	0	3	0	2	1	1	0	1	0	1	1	0	16	0	33	48.5
320	Big Wood (Wexford)	Wexford		1	1	2	1	2	0	0	1	1	0	0	0	0	1	0	10	0	33	30.3
321	Brownstown	Offaly		4	1	2	0	3	2	3	2	1	1	0	1	1	0	0	21	0	33	63.6
322	North Brow	Laois		2	2	2	0	3	0	1	2	1	0	1	0	1	0	0	15	0	33	45.5
324	Cloghscregg	Kilkenny		2	1	2	0	3	0	1	1	0	0	1	0	1	0	0	12	0	33	36.4
326	Brownstown East	Offaly		1	1	2	0	3	1	0	1	0	1	0	0	0	0	0	10	0	33	30.3
327	Carrhill Wood	Wexford		1	1	0	2	0	0	2	0	1	0	0	0	1	0	0	8	0	33	24.2
328	Lisheen	Offaly		1	1	2	0	3	1	3	1	0	1	1	0	1	0	0	15	0	33	45.5
329	Clondallow	Offaly		1	1	2	1	3	0	2	1	0	1	1	0	1	0	0	14	0	33	42.4
330	Rinn Lough Woods	Leitrim		2	2	2	1	3	0	4	2	0	0	1	0	0	1	0	18	0	33	54.5
331	Ardagh	Leitrim		2	2	0	2	3	0	4	1	1	1	1	1	1	0	0	19	0	33	57.6
332	Buckode	Leitrim		2	2	1	1	3	0	4	1	0	1	1	1	1	0	0	18	0	33	54.5
333	Stonepark	Leitrim		2	2	2	1	3	0	4	1	1	1	1	1	1	1	0	21	0	33	63.6
334	Garadice Lough Peninsula	Leitrim		4	2	2	2	3	1	2	1	1	0	1	1	1	1	0	22	0	33	66.7
335	Faslowart	Leitrim		2	2	2	0	3	2	4	1	1	1	0	1	1	0	0	20	0	33	60.6
336	Ballard Hill	Wicklow		1	2	1	2	3	1	4	1	1	1	1	0	1	1	0	20	0	33	60.6
337	Massy's Wood	Dublin		2	2	0	1	1	0	4	0	1	0	1	1	1	0	0	14	0	33	42.4
338	Vale of Clara	Wicklow		4	3	2	1	3	1	5	1	1	0	1	0	1	1	0	24	0	33	72.7
339	O' Donnell's Rock Wood	Leitrim		2	2	2	1	3	1	4	1	1	1	0	0	0	0	0	18	0	33	54.5
340	Killygar House	Leitrim		4	2	1	1	0	2	4	1	1	0	1	0	1	0	0	18	0	33	54.5
341	Ballard Bridge	Wicklow		3	2	2	0	3	1	1	1	1	1	1	0	0	0	0	16	0	33	48.5
344	Cappog	Cavan		1	2	2	1	3	0	3	1	0	0	1	1	1	0	0	16	0	33	48.5
345	Ballyconnell Demesne	Cavan		4	2	2	2	3	2	5	3	1	0	1	1	1	1	0	28	0	33	84.8
346	Deerpark (Cavan)	Cavan		4	2	2	1	3	0	5	1	0	0	1	0	1	2	0	22	0	33	66.7
347	Annaghduff	Cavan		1	2	0	0	3	0	4	1	0	1	1	1	0	1	0	15	0	33	45.5
348	Lismore Demesne	Cavan		1	2	2	0	3	0	1	1	0	0	0	1	0	0	0	11	0	33	33.3
349	Bellamont Forest	Cavan		4	2	1	0	3	1	2	1	1	0	1	1	1	0	0	18	0	33	54.5
350	Mullaghahy	Cavan		1	2	2	0	3	2	1	1	0	0	1	1	0	0	0	14	0	33	42.4
351	Kingscourt Forest Park	Cavan		4	2	1	1	2	2	4	0	1	0	1	1	1	0	0	20	0	33	60.6
353	Greenaun North	Leitrim		2	2	1	0	3	1	4	1	1	1	1	1	1	0	0	19	0	33	57.6
355	Treankillew Wood	Leitrim		1	2	2	1	3	0	1	1	1	1	1	1	1	0	0	16	0	33	48.5
356	Mount Campbell Woods South	Leitrim		2	2	2	1	2	1	0	2	0	0	1	1	1	0	0	15	0	33	45.5
360	Woodford	Leitrim		1	1	1	2	3	0	0	0	1	1	0	1	0	0	0	11	0	33	33.3
361	Carrickataeane	Leitrim		3	2	2	1	3	1	1	1	0	1	1	1	1	0	0	18	0	33	54.5
362	Cloonquin Wood	Leitrim		1	2	2	0	3	0	1	1	1	1	0	1	1	1	0	15	0	33	45.5
364	Keelrin	Leitrim		1	2	2	1	3	0	2	1	0	1	1	1	1	1	0	17	0	33	51.5
365	Mullaghboy South	Leitrim		2	2	1	2	3	1	1	2	0	1	1	1	1	0	0	18	0	33	54.5
366	Mullaghboy	Leitrim		2	2	2	1	3	0	2	1	0	1	1	1	0	1	0	17	0	33	51.5
367	Keelrin East	Leitrim		4	2	2	1	2	2	2	1	0	1	1	1	1	0	0	20	0	33	60.6

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj'n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs	Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33													
371	Conaghil	Leitrim	3	1	0	0	0	0	2	1	1	0	1	0	1	1	0	1	1	0	1	1	0	11	0	33						33.3	
373	Corleck/Derrydamph	Cavan	1	2	2	0	3	0	4	1	0	1	1	0	1	1	0	1	0	0	1	0	0	16	0	33						48.5	
374	Srabraggan	Roscommon	3	1	2	0	3	0	0	2	0	1	1	1	1	1	1	1	1	1	1	0	16	0	33						48.5		
379	Roosky Hill	Leitrim	3	2	1	1	3	0	2	1	1	1	1	1	1	1	1	0	0	18	0	33									54.5		
381	Killavoggy Wood	Leitrim	3	1	0	0	3	0	0	1	0	1	1	0	1	0	0	1	0	11	0	33									33.3		
382	Lavagh Wood	Leitrim	3	2	2	0	3	1	2	1	1	1	1	0	1	0	1	0	0	18	0	33									54.5		
386	Glassalt Wood	Leitrim	3	2	1	0	3	0	0	1	0	0	1	1	0	0	0	0	12	0	33										36.4		
387	Camalt Wood	Leitrim	2	2	2	0	3	1	0	1	0	1	1	1	1	1	0	0	15	0	33										45.5		
388	Derrycarne Demesne South	Leitrim	4	2	2	0	3	3	4	2	1	0	1	1	1	1	1	0	25	0	33										75.8		
389	Lough MacHugh Wood	Leitrim	1	1	2	0	3	0	0	1	0	0	1	0	0	0	0	9	0	33											27.3		
390	Aghadrumcarn Wood	Leitrim	1	2	1	0	3	0	1	1	0	1	1	0	1	0	1	0	12	0	33										36.4		
392	Clooncahir Wood	Leitrim	3	2	2	1	2	1	3	1	0	1	0	0	1	0	0	17	0	33											51.5		
394	Corraleskin Wood	Leitrim	1	2	2	0	3	0	3	1	0	1	0	0	1	0	0	14	0	33											42.4		
396	Summerhouse Wood	Leitrim	2	2	2	0	3	0	3	1	0	1	1	1	1	1	0	0	17	0	33										51.5		
397	Cloone Lough Woods	Leitrim	2	2	2	0	3	0	4	1	0	1	1	0	1	0	0	17	0	33											51.5		
399	Stracummer Woods	Leitrim	2	2	2	1	3	0	3	1	0	1	1	1	1	1	0	0	18	0	33										54.5		
400	Derrycarne North	Leitrim	1	1	2	1	3	0	3	1	1	0	0	0	0	0	0	13	0	33											39.4		
401	Lough Fea Demense	Monaghan	3	2	2	2	2	0	5	0	1	0	0	0	0	1	0	0	18	0	33										54.5		
402	Black Lough/Lough Bawn Woods	Monaghan	2	2	0	1	3	0	1	1	1	1	1	1	1	0	1	0	15	0	33										45.5		
403	Fairfield Demense	Monaghan	4	2	1	2	3	1	4	2	1	0	1	1	1	1	0	0	23	0	33										69.7		
404	Old Wood	Monaghan	3	1	1	1	3	2	2	1	1	0	1	1	0	0	0	17	0	33											51.5		
406	Nut Wood	Monaghan	3	1	2	1	3	0	4	0	1	0	1	0	1	1	0	18	0	33											54.5		
407	Derryveen Wood	Monaghan	4	2	2	0	3	0	4	1	0	0	1	1	1	1	0	0	19	0	33										57.6		
408	Drumever Woods	Monaghan	2	2	1	1	1	0	3	0	1	0	1	1	1	1	0	0	14	0	33										42.4		
409	Drummully	Monaghan	3	1	1	0	3	1	3	1	1	0	0	1	0	1	1	0	16	0	33										48.5		
410	Derrynashallog	Monaghan	3	2	2	1	2	1	3	1	1	0	1	0	1	0	1	0	18	0	33										54.5		
411	Dromore West	Monaghan	4	2	2	0	3	1	2	1	1	0	1	1	1	1	1	0	20	0	33										60.6		
412	Hollywood Lake Wood	Monaghan	4	2	2	0	3	0	3	1	1	0	1	1	1	1	0	0	19	0	33										57.6		
414	Derrygorry Wood	Monaghan	1	2	2	2	3	1	2	1	1	0	0	1	0	1	0	17	0	33											51.5		
416	Castleshane Demense Woods	Monaghan	2	2	1	1	3	1	4	1	1	0	0	1	0	0	0	17	0	33											51.5		
417	Tully Wood	Longford	2	2	2	0	3	0	2	1	0	1	0	1	0	1	0	0	14	0	33										42.4		
418	Carrickglass Demense Woods	Longford	4	2	1	2	3	1	4	1	1	0	1	1	1	1	0	0	22	0	33										66.7		
419	Carrickglass Demense Woods West	Longford	4	2	1	2	3	1	4	1	1	0	1	1	1	1	0	0	22	0	33										66.7		
421	Derryglogher Wood	Longford	2	2	1	1	3	2	3	1	1	1	0	1	1	1	0	0	19	0	33										57.6		
422	Kiltyreher Wood	Longford	3	2	2	1	3	0	2	1	1	0	1	1	0	0	0	17	0	33											51.5		
423	Inisfale Wood	Roscommon	4	1	0	0	3	0	2	1	0	1	1	1	1	0	1	0	15	0	33										45.5		
425	Cormongan	Leitrim	1	1	2	0	3	0	1	1	0	0	1	0	0	1	0	11	0	33											33.3		
426	Derrycarne Shoreline	Leitrim	4	1	2	0	3	1	3	1	1	1	1	1	1	0	1	0	20	0	33										60.6		
427	Carrickarinn	Leitrim	4	2	2	1	3	1	4	2	0	0	1	1	1	1	0	0	22	0	33										66.7		

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj'n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
428	Esker North	Leitrim	3	1	2	0	3	1	1	1	0	0	0	1	1	0	0	0	0	1	1	0	0	14	0	33					33	42.4		
430	Lugmore Glen	Dublin	2	2	2	0	3	2	0	1	0	0	1	1	1	1	0	0	15	0	33									33	45.5			
432	Largydonnell Wood	Leitrim	2	2	0	1	3	0	3	1	1	1	1	0	1	0	0	16	0	33										33	48.5			
438	Black River Woods	Cavan	3	2	1	2	3	1	2	2	1	1	1	1	1	0	0	21	0	33										33	63.6			
439	Gartbrattan Wood	Cavan	2	2	2	1	3	1	3	1	0	1	1	1	1	0	0	18	0	33										33	54.5			
443	Knocktemple	Cavan	1	2	2	0	3	0	1	1	0	1	1	1	1	1	0	14	0	33										33	42.4			
446	Trinity Island Wood	Cavan	4	2	2	1	3	1	3	2	0	1	1	1	1	1	0	22	0	33										33	66.7			
448	Kilnaglare Lower Wood	Cavan	3	2	2	0	3	0	3	1	0	1	1	1	1	1	0	18	0	33										33	54.5			
453	Drumgoa Wood	Cavan	1	2	2	0	3	0	3	1	0	1	1	1	1	1	0	16	0	33										33	48.5			
454	Redhill Demense Wood	Cavan	4	2	1	2	2	1	3	0	1	0	1	1	1	1	0	19	0	33										33	57.6			
455	Lavey	Cavan	2	2	2	0	3	0	2	1	1	0	1	1	1	1	0	16	0	33										33	48.5			
456	Crocknahattin	Cavan	1	1	1	1	3	0	0	0	1	0	0	0	0	1	0	9	0	33										33	27.3			
457	Drumbannan	Cavan	1	1	2	0	3	0	1	0	1	0	0	0	0	0	0	9	0	33										33	27.3			
458	Lear	Cavan	1	2	0	0	3	0	1	0	1	0	0	0	0	0	0	8	0	33										33	24.2			
459	Drummora Great Wood	Cavan	1	1	2	0	3	0	1	1	0	1	1	1	1	1	0	13	0	33										33	39.4			
460	Gortnanoul Wood	Cavan	1	1	1	0	1	0	1	0	0	0	0	1	1	0	0	7	0	33										33	21.2			
461	Makeif Wood	Cavan	1	2	2	0	3	0	2	1	0	1	1	1	1	0	0	14	0	33										33	42.4			
463	Derinish More Wood	Cavan	3	1	2	1	3	1	2	1	1	0	1	1	1	0	2	19	0	33										33	57.6			
465	Annagh Wood West	Cavan	2	2	2	0	3	0	3	2	0	0	1	0	0	0	0	15	0	33										33	45.5			
466	Stonepark Wood	Cavan	1	1	2	1	2	0	2	0	1	0	0	1	1	1	0	13	0	33										33	39.4			
467	St John's Wood	Roscommon	4	3	2	1	3	3	5	2	1	1	1	1	1	1	0	29	0	33										33	87.9			
468	Black Island Wood	Leitrim	4	2	2	0	3	1	2	1	1	1	1	1	1	1	0	21	0	33										33	63.6			
469	Meenagh Wood	Leitrim	3	2	2	1	3	1	3	1	1	1	1	1	1	1	0	21	0	33										33	63.6			
470	Mantua House	Roscommon	2	2	2	0	2	1	3	0	1	1	1	1	1	1	0	17	0	33										33	51.5			
471	Warren Point	Roscommon	2	2	2	2	3	0	3	1	1	0	1	0	1	0	0	17	0	33										33	51.5			
472	Hughestown Wood	Roscommon	2	2	2	2	3	1	3	1	1	1	1	1	1	1	0	21	0	33										33	63.6			
474	Danesfort	Roscommon	2	2	2	0	3	0	3	1	1	1	1	1	1	1	0	18	0	33										33	54.5			
475	Drumcormick Wood	Roscommon	2	2	2	1	3	0	4	1	1	1	1	1	1	1	0	20	0	33										33	60.6			
476	Drummanns Island	Roscommon	1	2	2	2	3	0	4	1	1	1	1	1	1	0	0	19	0	33										33	57.6			
477	The Quarters	Roscommon	1	2	2	0	2	0	3	1	1	1	0	0	0	0	0	13	0	33										33	39.4			
478	Cloontykilla Wood	Roscommon	1	2	1	2	3	1	3	1	1	0	1	1	1	1	0	18	0	33										33	54.5			
479	Knockvicker	Roscommon	2	2	1	1	3	0	3	2	0	1	1	1	1	1	0	18	0	33										33	54.5			
480	Dooneen	Roscommon	2	1	2	0	3	0	3	1	1	1	1	1	1	1	0	17	0	33										33	51.5			
481	Caslans Wood	Roscommon	1	1	2	2	0	1	3	0	1	0	0	0	0	1	0	12	0	33										33	36.4			
482	Kilcloghan	Roscommon	3	3	2	0	3	0	3	1	1	1	1	1	0	1	0	19	0	33										33	57.6			
483	Cloonsillagh	Roscommon	2	3	1	0	0	0	3	1	0	1	1	1	1	1	0	14	0	33										33	42.4			
484	Derrymacstur	Roscommon	3	2	2	0	3	1	3	1	1	1	1	1	1	1	0	20	0	33										33	60.6			
485	Knockranny	Roscommon	2	2	2	1	3	0	3	1	1	1	1	1	1	1	0	18	0	33										33	54.5			
486	Doon Wood	Roscommon	2	2	0	1	3	2	2	1	1	1	1	1	0	1	0	17	0	33										33	51.5			

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																	Bryophyte richness																	Free Regeneration																	Horizontal Diversity																	Native Basal Area																	Notable Species																	Area																	Native Woodland Types																	1840s																	Adj s-n habitats																	Hydrological Features																	Woody debris + Dead Wood																	Manmade features																	Annex Woodland																	Tufa Springs																	Score																	Missing values																	Max available																	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

Site No.	Woodland Name	County	Max. Score	Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj s-n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score Missing values Max available %Score																		
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33			100.0
532	Isolated Woodland (Coopershill)	Sligo		1	1	x	2	0	0	0	x	1	x	x	x	x	1	0	6	6	24	25.0
533	Coolbock Bridge	Sligo		1	1	x	2	3	0	0	x	0	x	x	x	x	1	0	8	6	24	33.3
534	Fidwog	Sligo		4	2	x	2	3	0	2	x	1	x	x	x	x	1	0	15	6	24	62.5
535	Knocknacross	Sligo		2	2	x	2	3	1	0	x	1	x	x	x	x	1	0	12	6	24	50.0
536	Ardkeeran	Sligo		2	2	x	2	3	0	1	x	0	x	x	x	x	0	0	10	6	24	41.7
537	Closkeybridge	Sligo		1	1	x	x	x	0	0	x	0	x	x	x	x	1	0	3	8	19	N/A
538	Doonsheheen	Sligo		1	1	x	2	3	0	0	x	0	x	x	x	x	0	0	7	6	24	29.2
539	Annagh (Sligo)	Sligo		1	1	x	2	3	0	1	x	0	x	x	x	x	0	0	8	6	24	33.3
540	Clonguish (Castle Forbes)	Longford		2	2	x	2	3	1	4	x	1	x	x	x	x	0	0	15	6	24	62.5
541	Ballykenny Wood, (Castle Forbes)	Longford		1	1	x	2	3	0	2	x	1	x	x	x	x	0	0	10	6	24	41.7
542	Annagh (Castle Forbes)	Longford		1	2	x	2	3	1	5	x	1	x	x	x	x	1	0	16	6	24	66.7
543	Lissagernal (Castle Forbes)	Longford		1	1	x	2	3	0	4	x	1	x	x	x	x	0	0	12	6	24	50.0
544	Gubroe (Castle Forbes)	Longford		3	2	x	2	3	2	4	x	1	x	x	x	x	1	0	18	5	24	75.0
546	Corlehan (Castle Forbes)	Longford		2	1	x	2	3	1	3	x	1	x	x	x	x	1	0	14	6	24	58.3
547	Cornollen	Longford		1	1	x	2	3	0	4	x	0	x	x	x	x	0	0	11	6	24	45.8
548	Big Wood (Laois)	Laois		1	1	x	x	x	0	1	x	1	x	x	x	x	0	0	4	8	19	N/A
549	Kylebeg	Laois		1	1	x	x	x	1	3	x	1	x	x	x	x	0	0	7	8	19	N/A
550	Coolcor North	Offaly		1	2	x	2	3	0	0	x	0	x	x	x	x	0	0	8	6	24	33.3
551	Srah	Offaly		1	2	x	2	3	0	0	x	0	x	x	x	x	0	0	8	6	24	33.3
552	Woodfield House	Offaly		2	2	x	2	3	0	2	x	1	x	x	x	x	0	0	12	6	24	50.0
553	Woodfield Bog South	Offaly		1	2	x	2	3	0	0	x	0	x	x	x	x	0	0	8	6	24	33.3
554	Toberdaly	Offaly		1	2	x	2	2	0	1	x	0	x	x	x	x	0	0	8	6	24	33.3
555	Tara	Offaly		2	2	x	2	3	0	0	x	0	x	x	x	x	0	0	9	6	24	37.5
556	Balleek Beg	Offaly		2	2	x	2	3	3	1	x	1	x	x	x	x	0	0	14	6	24	58.3
557	Ballynamona	Offaly		1	2	x	2	3	1	3	x	0	x	x	x	x	0	0	12	6	24	50.0
558	Clonearl Demesne	Offaly		3	2	x	2	3	0	1	x	1	x	x	x	x	0	0	12	6	24	50.0
559	Killesh	Offaly		3	3	x	2	1	1	0	x	1	x	x	x	x	0	0	11	6	24	45.8
560	Coole East	Offaly		1	2	x	2	3	1	0	x	0	x	x	x	x	0	0	9	6	24	37.5
561	Clonlack	Offaly		2	3	x	2	3	1	1	x	0	x	x	x	x	0	0	12	6	24	50.0
562	Doory Northwest	Offaly		2	1	x	2	3	1	0	x	0	x	x	x	x	0	0	9	6	24	37.5
563	Clara Bog (Margin)	Offaly		1	2	x	2	3	1	2	x	1	x	x	x	x	0	0	12	6	24	50.0
564	Bracklin Big	Offaly		2	2	x	2	3	2	1	x	1	x	x	x	x	0	0	13	6	24	54.2
565	Fairfield	Offaly		1	1	x	2	3	0	0	x	0	x	x	x	x	0	0	7	6	24	29.2
566	Derrygrogan Little	Offaly		1	2	x	2	3	0	1	x	0	x	x	x	x	0	0	9	6	24	37.5
567	Rathdrum	Offaly		2	2	x	2	3	0	1	x	0	x	x	x	x	0	0	10	6	24	41.7
568	Cavemount	Offaly		1	2	x	2	3	0	0	x	0	x	x	x	x	0	0	8	6	24	33.3
569	Derryesker/Boley Beg Callows	Offaly		3	2	x	2	3	1	1	x	0	x	x	x	x	0	0	12	6	24	50.0
570	Ballyduff Wood	Offaly		1	2	x	2	3	0	3	x	1	x	x	x	x	0	0	12	6	24	50.0
571	Moleen	Offaly		1	2	x	2	3	0	1	x	1	x	x	x	x	0	0	10	6	24	41.7

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																	Bryophyte richness																	Free Regeneration																	Horizontal Diversity																	Native Basal Area																	Notable Species																	Area																	Native Woodland Types																	1840s																	Adj s-n habitats																	Hydrological Features																	Woody debris + Dead Wood																	Manmade features																	Annex Woodland																	Tufa Springs																	Score																	Missing values																	Max available																	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33												
613	Cornamucklagh (Louth)	Louth		1	1	0	0	1	0	3	0	1	1	1	1	0	0	0	10	0	33										30.3	
614	Corratober	Cavan		3	2	2	0	3	0	3	1	0	1	1	1	1	0	0	18	0	33										54.5	
617	Garthylough	Cavan		2	2	2	0	3	0	1	1	1	0	1	0	0	0	13	0	33											39.4	
618	Enaghan	Longford		3	3	2	0	3	0	3	2	0	1	1	1	1	0	0	20	0	33										60.6	
619	Lisraherly	Longford		3	2	2	0	3	0	2	1	0	1	1	1	0	0	16	0	33											48.5	
621	Skeagh	Cavan		2	3	2	0	3	0	3	2	0	0	1	1	1	0	18	0	33											54.5	
622	Anaverna	Louth		1	1	0	2	3	0	0	0	1	0	0	0	0	1	9	0	33											27.3	
625	Cruicetown Wood	Meath		3	2	1	1	3	0	1	1	1	0	1	1	1	0	16	0	33											48.5	
629	Puckstown	Louth		2	1	2	2	1	0	3	0	1	0	1	1	1	0	15	0	33											45.5	
631	King William's Glen	Louth		4	1	2	2	2	0	3	1	1	0	1	1	1	0	19	0	33											57.6	
632	Beaulieu	Louth		3	1	1	1	2	0	4	1	1	0	1	1	1	0	17	0	33											51.5	
639	Ravensdale Park	Louth		2	2	0	1	1	0	1	0	1	0	1	0	1	0	10	0	33											30.3	
640	Red Bog	Louth		3	2	2	0	3	0	4	1	0	1	1	0	1	0	18	0	33											54.5	
643	Woodpole Fox Covert	Meath		2	1	1	0	0	0	0	0	0	0	0	0	1	0	5	0	33											15.2	
644	Fortland	Cavan		2	2	2	1	3	0	1	0	1	0	1	1	1	0	15	0	33											45.5	
645	Crover	Cavan		3	2	2	1	3	0	1	1	1	0	1	0	1	0	16	0	33											48.5	
647	Garrysallagh	Cavan		4	2	2	0	3	1	2	1	0	1	1	1	0	1	19	0	33											57.6	
648	Mulrick	Cavan		4	2	2	0	3	1	2	1	0	0	1	1	1	1	19	0	33											57.6	
649	Cornamucklagh (Cavan)	Cavan		2	2	2	0	3	0	3	1	0	1	1	0	1	0	16	0	33											48.5	
650	Carricknaveddan	Cavan		2	2	2	0	1	0	1	1	0	0	1	0	1	0	11	0	33											33.3	
652	Duncollog	Cavan		4	2	2	1	3	0	2	1	1	0	1	1	1	1	20	0	33											60.6	
654	Shinan	Cavan		3	2	1	1	3	0	1	1	1	1	1	1	0	1	17	0	33											51.5	
655	Darkley	Cavan		3	2	1	1	0	0	1	1	1	1	1	1	1	0	14	0	33											42.4	
656	Lisdoagh	Cavan		1	2	2	0	3	0	1	1	0	1	1	1	0	0	13	0	33											39.4	
657	Drumlumman	Cavan		1	2	2	0	3	0	1	1	0	1	1	1	0	0	13	0	33											39.4	
658	Knockbride	Cavan		1	1	0	2	3	0	2	1	0	1	1	1	0	0	13	0	33											39.4	
660	Cullies	Cavan		4	3	1	0	3	0	2	2	0	1	1	1	1	0	19	0	33											57.6	
661	Derrynure	Cavan		2	2	2	0	3	0	3	1	0	1	0	1	1	0	16	0	33											48.5	
664	Townley Hall	Louth		1	2	1	2	2	0	1	0	1	1	1	1	1	0	14	0	33											42.4	
668	Louth Hall	Louth		3	2	2	0	2	0	2	1	1	0	1	0	0	0	14	0	33											42.4	
670	Clondalee More	Meath		4	2	2	1	3	0	4	3	0	1	1	0	0	1	22	0	33											66.7	
671	Crossantown	Meath		2	2	2	1	2	0	3	0	1	0	0	1	1	0	15	0	33											45.5	
672	Castletowncooly	Louth		3	2	1	0	3	0	0	1	0	1	1	0	1	0	13	0	33											39.4	
675	Coragh	Cavan		2	2	2	0	3	1	2	1	0	1	1	1	0	1	17	0	33											51.5	
676	Cornagee	Cavan		2	1	0	0	3	0	1	1	1	0	1	1	0	0	11	0	33											33.3	
678	Carracloghan	Louth		1	2	2	0	3	0	1	1	0	0	1	1	0	0	12	0	33											36.4	
679	Collon	Louth		3	2	1	0	3	0	4	2	1	0	1	1	1	0	19	0	33											57.6	
680	Toomes	Louth		3	2	2	0	3	0	2	1	0	1	1	0	0	0	15	0	33											45.5	
681	Muff (Louth)	Louth		2	2	2	0	3	0	1	1	0	0	1	1	1	0	14	0	33											42.4	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj s-n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score Missing values Max available %Score																		
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33			
683	Phillipstown	Louth		2	2	2	1	0	1	1	0	1	0	1	0	0	0	11	0	33	33.3	
685	Annagh (Meath)	Meath		2	2	2	0	0	1	4	1	1	0	0	1	0	0	14	0	33	42.4	
686	Rock Wood	Meath		1	2	2	0	3	0	0	1	0	0	0	1	0	0	10	0	33	30.3	
687	Thomastown Bog	Meath		2	3	2	1	3	0	4	1	1	1	1	1	0	0	20	0	33	60.6	
688	Grove Island	Meath		4	2	1	1	3	0	3	2	0	0	1	1	0	1	0	19	0	33	57.6
691	Billis	Cavan		3	2	2	1	2	0	1	1	0	1	0	0	1	1	0	15	0	33	45.5
693	Beagh Blebe	Cavan		2	2	1	0	3	0	0	1	0	0	1	1	1	0	12	0	33	36.4	
694	Carricknaveagh	Cavan		4	2	2	0	3	1	1	1	0	0	1	0	1	0	16	0	33	48.5	
695	Annagharnet	Cavan		1	2	2	1	3	0	1	1	0	1	1	0	1	0	14	0	33	42.4	
696	Kill	Cavan		1	2	2	0	3	0	2	1	0	1	0	0	1	0	13	0	33	39.4	
698	Carrigan	Cavan		1	2	2	0	3	0	1	1	0	1	1	0	1	0	13	0	33	39.4	
699	Flemingstown East	Meath		4	2	2	2	3	1	4	2	1	0	1	1	1	0	24	0	33	72.7	
701	Greenan North	Meath		2	3	2	1	3	1	3	1	1	0	0	1	1	0	19	0	33	57.6	
702	Rahinstown	Meath		1	2	0	1	3	0	3	1	1	0	1	1	1	0	15	0	33	45.5	
703	Glenmore Fox Covert	Meath		4	1	2	1	3	0	4	0	1	0	1	1	1	0	19	0	33	57.6	
704	Bog Woods	Meath		1	2	2	0	3	0	0	1	1	1	1	0	1	0	13	0	33	39.4	
705	Burtonstown	Meath		1	2	2	0	3	0	1	1	1	0	1	1	1	0	14	0	33	42.4	
707	Ardsallagh	Meath		3	2	2	1	0	1	3	0	1	0	1	1	1	0	16	0	33	48.5	
711	Derrysheridan	Meath		2	1	2	0	3	1	1	2	1	1	1	1	0	0	16	0	33	48.5	
713	Drive Wood	Meath		2	1	2	0	3	0	1	0	1	0	0	1	1	0	12	0	33	36.4	
715	Balrath	Meath		1	2	2	2	3	0	3	2	1	0	1	1	1	0	19	0	33	57.6	
718	Birdhill	Meath		3	2	1	1	3	0	2	1	1	0	1	1	1	0	17	0	33	51.5	
724	Brittas (Meath)	Meath		3	2	2	1	2	0	4	0	1	1	1	1	1	0	19	0	33	57.6	
726	Knightstown	Meath		3	3	2	1	3	0	3	2	1	0	1	1	1	0	21	0	33	63.6	
727	Culnagore Wood	Longford		3	3	2	2	3	0	4	1	1	1	1	1	1	0	23	0	33	69.7	
728	Coolamber	Longford		3	2	1	2	3	0	3	1	0	1	1	0	1	0	18	0	33	54.5	
729	White Sand Wood	Longford		2	2	2	0	3	2	3	1	0	1	1	1	1	1	20	0	33	60.6	
730	Clonbroney	Longford		2	2	2	0	3	0	1	1	0	1	1	1	1	0	15	0	33	45.5	
731	Windmill Wood	Longford		3	2	2	1	2	1	2	1	0	1	1	1	0	1	18	0	33	54.5	
732	Abbeyderg	Longford		3	2	2	0	3	2	3	1	0	1	1	0	1	0	19	0	33	57.6	
733	Corrabola	Longford		3	2	2	1	3	0	3	2	1	0	1	0	1	0	19	0	33	57.6	
734	Lislea	Longford		3	2	0	0	3	0	3	1	0	1	1	0	1	0	15	0	33	45.5	
735	Larkfield	Longford		4	3	2	0	3	0	2	1	1	0	1	0	0	1	18	0	33	54.5	
736	Cleraun	Longford		4	2	2	1	0	0	3	1	0	1	1	1	1	0	17	0	33	51.5	
737	Newcastle West	Longford		2	2	0	1	1	0	3	0	1	1	0	1	0	0	12	0	33	36.4	
738	Greenan South	Meath		1	3	2	0	3	1	1	2	1	0	1	1	1	0	17	0	33	51.5	
742	Isaacstown North	Meath		2	2	2	0	3	0	0	1	0	0	1	1	1	0	13	0	33	39.4	
743	Isaacstown South	Meath		1	2	2	2	1	0	2	1	0	0	0	1	1	0	13	0	33	39.4	
745	Jamestown	Meath		2	2	1	0	3	0	3	1	0	1	1	1	1	0	16	0	33	48.5	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness		Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score			
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33																
746	Baltynanima	Wicklow		4	3	1	2	3	0	5	3	1	1	1	1	1	1	1	1	1	2	0	28	0	33									84.8		
747	Breakey	Meath		2	3	2	0	3	0	3	1	0	1	1	1	1	0	1	0	1	0	1	0	18	0	33									54.5	
748	Molerick	Meath		3	2	2	1	3	0	2	2	0	1	1	1	1	1	0	0	1	0	0	19	0	33										57.6	
749	Tomnafinnoge	Wicklow		4	2	1	2	3	0	5	1	1	1	1	1	0	1	1	1	1	1	0	23	0	33										69.7	
750	Newcastle East	Longford		1	2	2	1	2	0	2	0	1	1	0	1	0	1	0	0	0	0	0	13	0	33										39.4	
751	Newcastle South	Longford		1	2	2	1	2	0	2	0	1	0	0	0	0	0	0	0	0	0	0	11	0	33										33.3	
752	Yellow Island	Meath/Louth		3	1	2	0	0	0	3	1	0	1	1	1	1	0	1	0	1	0	1	14	0	33										42.4	
753	Tree Island	Meath		2	1	1	0	3	0	1	1	1	1	1	1	0	0	0	0	0	0	12	0	33											36.4	
756	Summerhill Demesne	Meath		1	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0	0	1	0	9	0	33										27.3	
757	Ballymurphy	Meath		1	1	2	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	9	0	33											27.3	
760	Harristown (Meath)	Meath		1	1	2	1	3	0	1	1	0	0	0	0	1	1	0	0	12	0	33														36.4
762	Summerhill Lower	Meath		1	1	2	1	3	0	1	1	0	0	0	0	1	1	0	0	12	0	33														36.4
763	Milltown Glen	Meath		4	2	1	0	3	2	3	1	1	0	1	1	1	1	1	0	0	20	0	33													60.6
765	Newcastle	Meath		3	2	1	0	3	0	1	1	0	1	1	0	0	0	0	0	13	0	33														39.4
766	Drumard	Longford		1	2	1	0	2	0	2	1	0	1	1	0	1	0	1	0	12	0	33														36.4
767	Kiltyclogh	Longford		1	3	0	2	2	1	2	1	1	1	1	1	1	1	1	1	1	0	18	0	33												54.5
768	Forgney	Longford		2	2	1	1	3	0	2	1	0	1	1	0	0	0	0	0	14	0	33														42.4
769	Kilcommock Glebe	Longford		3	2	2	1	3	1	2	1	1	0	0	0	0	1	0	0	17	0	33														51.5
770	Glenmore	Longford		2	2	2	0	3	0	2	1	0	1	0	0	0	0	0	0	13	0	33														39.4
771	Golaroe	Longford		4	3	2	0	3	1	2	2	1	1	1	1	1	1	0	0	22	0	33														66.7
773	Kiltyreher North	Longford		2	2	2	0	3	0	2	1	1	1	0	0	1	0	0	15	0	33															45.5
774	Cornahoo	Longford		2	2	2	0	3	0	2	1	0	1	0	0	1	0	0	14	0	33															42.4
775	Derrybawn	Wicklow		3	2	1	2	3	0	4	1	1	1	1	1	1	1	1	0	22	0	33														66.7
776	Castlehoward	Wicklow		4	3	2	2	2	3	4	1	1	0	1	0	1	1	1	0	25	0	33														75.8
777	Glen of the Downs	Wicklow		4	3	2	1	3	3	5	2	1	1	1	1	1	1	1	0	29	0	33														87.9
779	Shelton North	Wicklow		4	2	0	2	3	0	4	2	1	1	1	1	1	1	1	0	23	0	33														69.7
780	Luggala Lodge	Wicklow		3	3	0	1	3	0	4	1	1	1	1	1	1	1	1	0	21	0	33														63.6
781	The Devil's Glen	Wicklow		4	3	2	1	3	2	4	2	1	1	1	1	1	1	1	0	27	0	33														81.8
783	Deputy's Pass	Wicklow		4	3	2	1	3	3	4	1	1	1	1	1	1	1	1	0	27	0	33														81.8
784	Oldboleys	Wicklow		1	3	1	0	3	0	4	1	1	1	1	1	1	1	1	0	19	0	33														57.6
785	Castlekevin	Wicklow		4	3	0	1	3	0	4	2	1	0	1	1	1	1	1	0	22	0	33														66.7
786	The Giants Cut & Lugduff	Wicklow		3	3	2	2	3	0	4	2	1	1	1	1	1	1	1	0	25	0	33														75.8
789	Knocksink	Wicklow		4	3	2	2	3	3	4	2	1	1	1	0	1	1	1	29	0	33															87.9
791	Kilmacrea Wood	Wicklow		1	3	1	0	3	3	4	1	1	1	0	0	1	1	0	20	0	33															60.6
792	Powerscourt Demesne North	Wicklow		2	2	1	1	1	0	2	0	1	0	1	1	1	1	0	1	14	0	33														42.4
793	Altdore Demesne	Wicklow		4	3	0	2	3	0	3	2	1	1	1	1	1	1	2	0	24	0	33														72.7
796	Ballyarthur	Wicklow		1	2	2	2	3	0	1	1	1	0	0	1	0	1	0	15	0	33															45.5
798	Kiltimon	Wicklow		3	2	0	1	3	0	3	0	1	0	1	0	1	0	1	16	0	33															48.5
799	Ballinagee Wood	Wicklow		1	2	0	1	3	0	1	1	0	1	1	1	1	1	1	0	14	0	33														42.4

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																Bryophyte richness																Free Regeneration																Horizontal Diversity																Native Basal Area																Notable Species																Area																Native Woodland Types																1840s																Adj-s-n habitats																Hydrological Features																Woody debris + Dead Wood																Manmade features																Annex Woodland																Tufa Springs																Score																Missing values																Max available																%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	1	2

Site No.	Woodland Name	County	Max. Score	Vascular plant richness		Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score		Missing values		Max available		%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33															
861	Killygally	Monaghan		1	1	2	0	3	2	1	1	0	1	0	1	0	1	0	0	1	0	0	13	0	33										39.4	
862	Annahaia	Monaghan		1	2	2	1	3	1	1	1	0	0	0	1	1	0	0	1	1	0	0	14	0	33										42.4	
864	Back Wood	Monaghan		3	2	0	2	1	1	1	1	1	0	1	1	1	0	1	1	1	0	0	15	0	33										45.5	
865	Lutrellstown	Dublin		4	2	2	1	3	3	4	0	1	0	0	0	1	0	0	1	0	0	21	0	33											63.6	
866	Brooklawn Wood	Dublin		2	1	1	1	2	2	1	0	1	0	1	0	1	0	0	0	0	0	12	0	33											36.4	
868	Drumillard Big	Monaghan		1	2	0	0	3	0	1	1	0	1	1	0	0	0	1	0	0	1	0	11	0	33										33.3	
870	Coolawinnia	Wicklow		3	1	1	0	3	0	1	1	0	1	1	1	1	1	1	1	1	1	0	15	0	33										45.5	
871	Blackditch	Wicklow		4	2	2	0	3	0	4	1	1	1	1	1	1	1	1	1	0	0	21	0	33											63.6	
872	Seabank	Wicklow		3	2	1	1	3	0	0	1	1	1	1	1	0	0	1	0	0	1	0	15	0	33										45.5	
874	Hollywood Glen	Wicklow		2	2	2	1	3	2	0	1	0	0	1	1	1	1	1	1	1	0	17	0	33											51.5	
875	Glennashouk	Wicklow		3	2	2	1	3	0	2	1	0	0	1	0	1	0	1	1	1	0	17	0	33											51.5	
876	Roundwood	Wicklow		1	2	0	1	3	0	3	1	1	0	0	1	0	1	1	1	1	0	15	0	33											45.5	
881	Howth Demesne	Dublin		1	1	1	2	0	0	3	1	1	1	1	1	0	1	0	0	1	0	13	0	33											39.4	
883	Santry Demesne	Dublin		2	1	2	2	1	0	2	0	1	0	1	0	1	1	0	0	0	0	13	0	33											39.4	
884	Glenasmole Valley	Dublin		4	3	2	1	3	3	4	3	0	1	1	1	1	0	0	1	0	1	27	0	33											81.8	
888	Kilquade	Wicklow		3	2	2	0	3	0	2	1	0	0	1	0	1	0	1	0	0	1	15	0	33											45.5	
892	Clonkeen	Wicklow		1	3	2	0	2	0	1	1	0	0	1	0	1	0	1	0	0	12	0	33												36.4	
894	Ballyward	Wicklow		2	2	2	0	2	0	4	1	0	1	1	0	0	0	0	0	0	15	0	33												45.5	
895	Deerpark (Wicklow)	Wicklow		1	1	2	0	1	0	4	0	0	0	0	0	0	0	1	0	0	10	0	33												30.3	
896	Rathsallagh Demense	Wicklow		3	1	0	2	1	0	1	0	1	1	1	1	1	1	0	0	13	0	33													39.4	
899	Askakeagh	Wicklow		3	2	2	1	3	1	3	2	1	1	1	1	0	1	2	0	23	0	33													69.7	
902	Mungacullin	Wicklow		2	2	2	0	3	0	1	1	0	0	1	0	0	0	0	0	0	12	0	33												36.4	
903	Laragh	Wicklow		2	2	2	1	3	0	2	1	0	1	1	0	0	0	0	0	0	15	0	33												45.5	
904	Cronelea	Wicklow		3	2	2	1	3	0	1	1	0	0	1	0	1	0	1	1	0	16	0	33												48.5	
906	Knockraheen	Wicklow		1	2	0	1	3	0	2	1	0	1	0	1	0	1	0	1	0	13	0	33												39.4	
907	Coolkenna	Wicklow		1	2	2	0	3	0	0	1	0	0	1	0	1	0	1	0	0	11	0	33												33.3	
908	Money Upper East	Wicklow		2	2	2	1	3	0	2	1	0	1	1	1	0	1	0	0	16	0	33													48.5	
909	Money Upper West	Wicklow		1	1	2	1	3	0	2	1	1	0	0	0	1	0	0	0	13	0	33													39.4	
910	Kilruddery Deerpark	Wicklow		2	2	1	1	3	0	3	1	1	0	1	0	1	0	1	0	0	16	0	33												48.5	
914	Ballinagee	Wicklow		3	2	0	2	3	1	3	1	1	0	1	1	1	1	0	1	20	0	33													60.6	
915	Malahide Demesne	Dublin		1	1	2	1	2	0	1	0	1	0	0	1	0	0	0	0	10	0	33													30.3	
916	Newbridge Demesne	Dublin		1	1	2	2	3	0	3	0	1	0	0	1	0	0	0	0	14	0	33													42.4	
917	Pumphouse Wood	Dublin		2	1	1	2	1	0	2	0	1	0	0	1	0	1	0	0	12	0	33													36.4	
918	Loughlinstown Wood	Dublin		4	1	2	2	3	0	0	1	1	0	1	1	1	1	1	0	18	0	33													54.5	
919	Fitzsimons Wood	Dublin		1	1	2	1	3	0	2	1	1	1	1	1	0	1	1	0	16	0	33													48.5	
921	Brackenstown Wood	Dublin		2	1	1	1	1	0	1	0	1	0	1	0	1	0	0	1	0	10	0	33												30.3	
922	Dunganstown West	Wicklow		4	3	2	1	3	1	3	2	1	0	1	1	1	1	0	0	23	0	33													69.7	
923	Ballard Lower	Wicklow		1	2	1	2	3	0	1	1	1	0	1	0	1	0	1	1	0	15	0	33												45.5	
924	Kelshabeg	Wicklow		2	2	1	2	3	0	2	2	0	1	0	0	1	1	0	17	0	33														51.5	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness		Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj'n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score		Missing values		Max available		%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33															
925	Crooksling Glen	Dublin		2	2	1	1	1	0	2	0	1	1	1	1	1	1	1	1	1	0	0	14	0	33										42.4	
927	Donadea Forest Park	Kildare		3	2	2	2	2	0	5	1	1	0	1	1	1	1	1	1	1	0	0	21	0	33										63.6	
930	Blackwood	Dublin		2	1	1	2	1	0	1	0	1	0	0	1	1	1	1	1	1	0	0	11	0	33										33.3	
931	Balcarrick	Dublin		1	1	2	1	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	8	0	33										24.2	
934	Rush Demesne	Dublin		3	1	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	8	0	33										24.2	
935	Bray Head Woodland	Wicklow		3	2	2	1	2	0	1	0	1	1	1	1	1	1	0	0	0	0	16	0	33											48.5	
938	Carton Demense	Kildare		4	2	1	2	1	1	4	1	1	1	1	1	1	1	1	1	1	0	0	21	0	33										63.6	
939	Kilteel Wood	Kildare		1	2	0	1	2	0	2	1	1	1	1	0	0	1	0	0	1	0	0	12	0	33										36.4	
942	Carbury Wood	Kildare		2	2	2	1	3	0	2	1	0	1	0	1	0	1	1	1	1	0	0	16	0	33										48.5	
943	Templeyon Lower	Wicklow		3	3	2	0	3	0	0	1	0	0	1	0	1	1	1	1	1	0	0	15	0	33										45.5	
944	Rahaval	Wicklow		1	2	2	2	3	0	0	1	1	0	0	0	0	1	0	0	1	0	0	13	0	33										39.4	
947	Russellswood	Kildare		3	2	0	1	2	0	4	0	1	0	1	0	1	0	1	0	0	0	15	0	33											45.5	
948	Rahin Wood (Kildare)	Kildare		4	2	2	1	3	0	4	2	1	1	1	1	0	1	1	1	0	1	1	23	0	33										69.7	
951	Kilcarra West	Wicklow		3	3	2	2	3	0	4	2	1	1	1	1	0	1	1	1	0	1	1	24	0	33										72.7	
952	Avondale	Wicklow		2	2	2	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	14	0	33											42.4	
955	Graigue	Wicklow		1	2	2	0	3	0	2	1	0	0	1	0	1	0	1	0	1	0	13	0	33											39.4	
956	Fiddancoyle	Wicklow		2	2	2	1	3	0	2	1	0	0	1	0	1	1	1	1	0	0	16	0	33											48.5	
961	Knockloe	Wicklow		1	1	0	1	1	0	1	1	1	1	0	0	1	1	0	0	1	1	0	10	0	33										30.3	
963	Killinthomas Wood	Kildare		3	2	0	0	3	0	4	0	1	1	0	1	1	0	1	1	0	0	16	0	33											48.5	
966	Ballymore Eustace	Kildare		3	1	1	1	1	0	2	0	1	0	0	1	0	0	1	0	0	0	11	0	33											33.3	
967	Mullaghreelan Wood	Kildare		1	2	1	0	2	0	2	0	0	1	0	0	0	0	0	0	0	0	9	0	33											27.3	
968	Drehid Wood	Kildare		1	2	2	1	3	0	3	2	0	1	0	1	0	1	1	1	0	0	17	0	33											51.5	
970	Pluckerstown	Kildare		1	2	2	0	3	0	1	1	0	0	0	0	1	0	0	0	0	0	11	0	33											33.3	
971	Derryvullagh Island	Kildare		1	1	0	1	3	1	2	2	1	1	0	1	0	1	1	1	0	0	15	0	33											45.5	
974	Moods	Kildare		1	2	0	1	3	0	0	1	0	1	0	1	1	1	0	0	0	0	11	0	33											33.3	
975	Royal Oak	Kildare		2	2	2	0	3	0	2	1	0	1	0	1	0	1	1	1	0	0	15	0	33											45.5	
978	Pollardstown Wood	Kildare		1	2	1	1	3	0	0	1	0	1	0	1	1	1	1	1	1	0	0	13	0	33										39.4	
981	Newbridge School Wood	Kildare		3	1	1	1	0	0	0	1	0	0	1	0	1	1	0	1	0	1	10	0	33											30.3	
982	Greatconnell	Kildare		3	1	2	2	3	0	2	1	1	1	1	1	0	0	0	0	0	0	17	0	33											51.5	
984	Coolbeg	Wicklow		2	2	1	0	3	0	2	1	0	1	1	1	1	1	1	1	0	0	15	0	33											45.5	
987	High Park Upper	Wicklow		2	2	2	0	2	0	2	1	1	0	1	1	1	1	1	1	0	0	15	0	33											45.5	
988	Manger Wood	Wicklow		2	2	1	1	3	0	1	2	1	0	1	0	1	0	1	1	1	0	16	0	33											48.5	
990	Kilmullin	Wicklow		2	2	2	1	1	0	1	1	0	0	1	0	0	1	0	0	0	1	12	0	33											36.4	
992	Money	Wicklow		2	2	1	0	3	0	1	2	0	0	1	1	1	1	1	1	0	0	14	0	33											42.4	
994	Coolinarrig Lower	Wicklow		3	1	0	1	3	0	0	1	0	1	1	0	1	1	0	1	0	0	12	0	33											36.4	
996	Carrigeenduff	Wicklow		3	3	1	1	3	1	2	1	0	1	1	1	0	1	0	1	0	0	18	0	33											54.5	
999	Tithewer	Wicklow		2	2	1	1	3	0	1	1	1	1	1	1	0	1	0	1	0	0	15	0	33											45.5	
1001	Glendarragh	Wicklow		3	3	2	1	2	0	1	1	0	0	1	0	1	0	1	0	1	0	15	0	33											45.5	
1003	Castletown	Kildare		3	1	2	0	3	1	3	1	1	0	1	0	1	0	1	0	1	0	17	0	33											51.5	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																	Bryophyte richness																	Free Regeneration																	Horizontal Diversity																	Native Basal Area																	Notable Species																	Area																	Native Woodland Types																	1840s																	Adj s-n habitats																	Hydrological Features																	Woody debris + Dead Wood																	Manmade features																	Annex Woodland																	Tufa Springs																	Score																	Missing values																	Max available																	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Site No.	Woodland Name	County	Max. Score	Vascular plant richness		Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score						
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33																			
1081	Lough Ennell Wood	Westmeath		2	2	2	1	3	0	3	2	0	1	1	0	1	1	0	1	0	0	0	0	0	18	0	33							54.5					
1084	Gaybrook Demense	Westmeath		4	3	2	0	3	0	4	1	1	0	1	0	1	0	1	1	0	1	0	0	0	21	0	33								63.6				
1085	Clonsingle	Westmeath		3	2	2	1	3	0	4	1	0	1	1	0	0	0	0	0	0	0	0	0	18	0	33									54.5				
1086	Meehan Wood	Westmeath		3	2	2	1	3	3	3	1	1	1	1	1	1	1	0	0	0	0	0	0	23	0	33										69.7			
1087	Lissakillen North	Westmeath		4	2	1	0	2	0	4	1	0	1	1	1	1	0	0	0	0	0	0	0	17	0	33										51.5			
1088	Whinning Wood	Westmeath		4	2	2	1	3	2	4	2	1	0	1	1	1	1	0	0	0	0	0	0	24	0	33											72.7		
1090	Creaghduff	Westmeath		4	2	2	0	3	3	2	1	1	1	1	1	1	1	1	1	0	0	0	0	22	0	33											66.7		
1093	Joanstown Wood	Westmeath		1	2	2	0	3	0	3	1	1	1	1	0	0	0	0	0	0	0	0	0	14	0	33											42.4		
1094	Baronstown Demense	Westmeath		3	2	2	1	1	0	2	1	1	0	1	1	0	1	1	1	0	0	0	0	16	0	33												48.5	
1095	Lough Iron Wood	Westmeath		4	2	2	0	3	1	3	2	0	0	1	0	0	1	0	0	1	0	0	0	19	0	33												57.6	
1096	Tristernagh Demense	Westmeath		1	2	1	1	3	0	1	1	1	0	1	0	1	0	0	0	0	0	0	0	12	0	33												36.4	
1097	Knockeyon Wood	Westmeath		4	2	2	1	3	2	4	1	1	1	1	1	0	0	0	0	0	0	0	0	22	0	33												66.7	
1098	Gartlandstown Wood	Westmeath		4	3	2	1	3	2	4	1	1	0	1	0	1	1	1	1	0	0	0	0	24	0	33													72.7
1099	Kiltoom	Westmeath		4	2	1	0	3	1	2	1	0	1	1	0	1	1	0	1	1	0	1	0	18	0	33													54.5
1100	Donore	Westmeath		4	3	2	0	3	0	1	1	1	0	1	1	0	1	1	1	1	0	0	0	18	0	33													54.5
1101	Lackan Wood	Westmeath		2	2	2	0	3	0	4	1	0	1	1	0	1	1	0	1	0	0	0	0	17	0	33													51.5
1102	Kiltober Esker	Westmeath		3	2	2	0	3	3	4	1	1	1	0	1	0	1	1	1	0	0	0	0	22	0	33													66.7
1103	Longhill Esker	Westmeath		4	2	2	0	3	3	2	1	0	1	1	1	1	1	1	0	0	0	0	0	21	0	33													63.6
1104	Ballymacmorris Wood	Westmeath		4	2	2	1	3	0	4	1	0	1	0	1	0	1	0	0	0	0	0	0	19	0	33													57.6
1105	Higginstown Wood	Westmeath		3	2	2	0	3	0	3	1	0	1	1	0	1	1	0	1	0	0	0	0	17	0	33													51.5
1106	Bracklin Wood	Westmeath		4	3	2	1	3	0	4	2	1	1	1	1	1	1	1	1	0	0	0	0	24	0	33													72.7
1107	Ballyhealy (Westmeath)	Westmeath		1	2	2	0	3	0	4	1	0	1	0	1	0	1	1	0	0	0	0	0	16	0	33													48.5
1108	Tonlemony Wood	Westmeath		1	2	2	1	3	0	4	1	0	1	0	1	0	0	1	0	0	0	0	0	16	0	33													48.5
1109	Corr Wood	Westmeath		3	3	2	0	1	1	4	1	1	1	1	1	1	0	1	0	1	0	0	0	19	0	33													57.6
1110	Cavestown	Westmeath		4	3	2	0	3	1	4	2	1	1	1	1	1	1	1	0	0	0	0	0	24	0	33													72.7
1111	Lough Slevin's Wood	Westmeath		4	3	1	2	3	0	4	3	1	1	1	1	0	1	1	1	0	0	0	0	25	0	33													75.8
1112	Kinturk Demense	Westmeath		2	2	2	0	3	1	4	1	1	1	1	1	1	0	0	0	0	0	0	0	18	0	33													54.5
1114	Carnpark	Westmeath		2	2	2	0	3	0	3	3	1	1	1	1	1	0	1	0	1	0	0	0	19	0	33													57.6
1115	Caran Wood	Westmeath		1	2	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	33													27.3
1116	Cornacuask	Westmeath		1	2	1	0	3	0	3	1	1	1	1	1	1	0	1	0	1	0	0	0	15	0	33													45.5
1117	Ballykildevin	Westmeath		1	2	1	0	3	0	2	1	1	1	1	1	0	1	0	1	0	0	0	0	14	0	33													42.4
1118	Clothes Rock Wood	Roscommon		3	2	1	1	1	1	2	0	1	1	0	1	0	1	1	0	0	0	0	0	15	0	33													45.5
1119	Mount Talbot North	Roscommon		4	2	1	1	3	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	14	0	33													42.4
1120	Cloonmore	Roscommon		3	2	2	1	3	1	2	1	0	1	1	1	1	0	0	0	0	0	0	0	18	0	33													54.5
1121	Lecarrow	Roscommon		3	2	2	1	1	0	2	2	0	1	1	1	1	1	1	1	0	0	0	0	17	0	33													51.5
1124	Ardan Wood	Westmeath		2	2	2	2	3	1	1	1	1	0	0	0	1	1	0	1	1	0	0	0	17	0	33													51.5
1125	Barbavilla Demense	Westmeath		4	2	2	2	3	1	4	1	1	0	0	0	1	1	1	1	1	0	0	0	23	0	33													69.7
1127	Pakenhamhall	Westmeath		4	1	0	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	14	0	33													42.4
1128	Tullynally	Westmeath		1	1	0	2	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	9	0	33													27.3

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj-s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1131	Reynella	Westmeath		2	2	2	0	2	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	33		33.3	
1132	Reynella Lough	Westmeath		2	2	2	0	2	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	12	0	33		36.4	
1133	Ballyowen	Westmeath		1	1	1	1	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	11	0	33		33.3	
1141	Clonybane	Westmeath		2	2	1	0	3	0	1	1	0	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	12	0	33		36.4	
1143	Knockasha Wood	Westmeath		1	2	1	2	3	0	1	1	0	1	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	14	0	33		42.4	
1145	Gortnafada	Westmeath		2	2	2	0	3	0	1	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	13	0	33		39.4	
1146	Bunanagh Wood	Westmeath		2	3	2	1	3	0	0	1	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	15	0	33		45.5	
1147	Coolalough	Westmeath		3	2	2	0	1	0	2	1	1	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	14	0	33		42.4	
1148	Glassavullaun	Dublin		1	2	0	0	3	0	0	1	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0	11	0	33		33.3		
1149	Lough Crew	Meath		1	3	2	0	3	1	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	13	0	33		39.4		
1150	Collon North	Louth		4	2	0	1	3	1	4	2	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	21	0	33		63.6		
1151	Phoenix Park	Dublin		1	1	0	2	3	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	33		39.4		
1152	Abbotstown	Dublin		4	1	1	1	0	1	3	0	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	15	0	33		45.5		
1153	Tankardstown South	Meath		1	1	1	1	3	0	0	0	1	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	10	0	33		30.3		
1154	Gartinadress	Cavan		1	2	2	1	1	0	1	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	10	0	33		30.3		
1155	Aghyrassy	Westmeath		4	2	2	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	24	0	33		72.7		
1156	Flagpole Lough Shore	Monaghan		3	2	1	1	3	3	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	17	0	33		51.5		
1157	Skeagh Headland	Cavan		2	2	2	2	3	0	0	1	1	0	1	0	1	0	0	1	0	0	1	0	1	0	0	0	15	0	33		45.5		
1158	Killyconigan	Monaghan		2	2	2	0	3	2	2	1	0	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	16	0	33		48.5		
1159	Barmeath Castle Hill	Louth		2	1	2	2	1	0	3	0	1	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	14	0	33		42.4		
1160	Porteen Wood	Roscommon		3	2	2	0	3	1	0	2	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	15	0	33		45.5		
1161	Derrycassan	Cavan		3	3	2	0	3	0	2	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	18	0	33		54.5		
1162	Mullaghmacateer	Monaghan		1	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	0	33		18.2			
1163	Killycramph Wood Shoreline	Cavan		4	2	2	0	3	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0	17	0	33		51.5		
1164	Newtown	Cavan		2	2	2	0	3	0	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	17	0	33		51.5		
1166	Newtownlow Esker Woodland	Westmeath		4	2	2	1	3	3	3	1	1	1	1	0	1	1	1	0	1	1	0	0	0	0	0	0	23	0	33		69.7		
1167	Coolinarig	Wicklow		2	2	2	0	3	1	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	15	0	33		45.5		
1168	Rathshane	Westmeath		2	2	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10	0	33		30.3		
1169	The Quill Woods	Wicklow		1	3	2	0	3	0	3	1	1	1	1	1	1	0	1	1	0	1	1	0	1	0	0	0	18	0	33		54.5		
1170	Bellamont Forest Centre	Cavan		2	2	1	0	3	1	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	14	0	33		42.4		
1171	Derrysheridan South Shore	Meath		3	2	2	0	3	0	1	1	0	1	1	0	1	1	0	0	1	0	1	0	0	0	0	0	15	0	33		45.5		
1172	Derrysheridan North Shore	Meath		4	2	2	0	3	0	1	3	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0	0	18	0	33		54.5		
1173	Capragh Lough South	Monaghan		2	2	2	1	3	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	14	0	33		42.4		
1174	Annies Bog	Monaghan		1	2	2	0	3	0	0	1	0	0	0	1	1	1	1	1	0	1	1	0	0	0	0	0	12	0	33		36.4		
1175	Coolnacarte Plantation	Monaghan		2	2	2	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	11	0	33		33.3		
1176	The Downs Wood	Monaghan		3	2	2	1	3	1	3	0	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	18	0	33		54.5		
1177	Lough Fea Lake	Monaghan		4	3	2	2	3	0	4	1	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	23	0	33		69.7		
1178	Derrylavan	Monaghan		2	2	2	0	3	1	2	2	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	18	0	33		54.5		
1179	Stickillin	Louth		1	1	2	1	3	0	2	1	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	13	0	33		39.4		

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																		Bryophyte richness																		Free Regeneration																		Horizontal Diversity																		Native Basal Area																		Notable Species																		Area																		Native Woodland Types																		1840s																		Adj s-n habitats																		Hydrological Features																		Woody debris + Dead Wood																		Manmade features																		Annex Woodland																		Tufa Springs																		Score																		Missing values																		Max available																		%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																		Bryophyte richness																		Free Regeneration																		Horizontal Diversity																		Native Basal Area																		Notable Species																		Area																		Native Woodland Types																		1840s																		Adj-s-n habitats																		Hydrological Features																		Woody debris + Dead Wood																		Manmade features																		Annex Woodland																		Tufa Springs																		Score																		Missing values																		Max available																		%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2

Site No.	Woodland Name	County	Max. Score	Vascular plant richness		Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score		Missing values		Max available		%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33															
1299	Gortigrenane	Cork		2	2	0	2	3	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	19	0	33									57.6	
1300	Coolymurraghue	Cork		1	2	2	1	3	0	4	1	1	1	1	1	1	1	1	1	1	1	1	0	20	0	33									60.6	
1301	Knockomagh Wood	Cork		3	3	2	1	1	0	4	0	1	1	1	1	0	1	1	1	0	1	1	0	19	0	33									57.6	
1302	Prohus	Cork		3	2	2	0	3	0	4	2	1	0	1	1	1	1	1	1	1	1	1	0	21	0	33									63.6	
1305	Manch East	Cork		4	2	1	1	1	0	4	1	1	0	0	1	1	1	1	1	1	1	1	0	18	0	33									54.5	
1306	Milleenanannig	Cork		4	3	0	0	3	1	4	1	0	1	1	1	1	1	1	1	1	1	0	0	20	0	33									60.6	
1307	East Wood	Cork		4	2	0	2	2	0	3	0	1	1	1	1	0	0	1	0	1	0	1	0	17	0	33									51.5	
1308	St Gobnet's Wood	Cork		4	3	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	0	0	21	0	33									63.6	
1310	Garrycloyne Wood	Cork		4	3	1	1	3	0	4	2	1	0	1	1	1	1	1	1	1	1	1	0	23	0	33									69.7	
1311	Coolatanavally	Cork		2	2	0	1	2	0	3	0	1	1	1	1	1	1	1	1	1	1	0	0	15	0	33									45.5	
1312	Cloghphilip Wood	Cork		3	3	1	2	3	0	4	2	1	1	1	1	1	1	0	1	1	0	1	0	23	0	33									69.7	
1313	Pigeon Wood	Cork		3	2	2	0	3	0	4	0	1	0	1	1	1	1	1	1	1	1	0	0	18	0	33									54.5	
1314	Toon Valley	Cork		4	3	2	1	3	2	5	3	0	1	1	1	0	1	1	1	1	1	1	0	27	0	33									81.8	
1315	Coolyduff	Cork		4	2	2	1	3	1	4	2	1	1	1	1	1	1	1	1	1	1	1	0	25	0	33									75.8	
1316	Glengarriff	Cork		4	3	2	1	3	2	5	3	1	1	1	1	1	1	1	1	1	1	1	0	29	0	33									87.9	
1317	The Gearagh	Cork		4	3	2	1	3	3	5	1	1	1	1	1	1	1	1	1	1	1	1	0	28	0	33									84.8	
1321	Castlebernard	Cork		3	3	0	2	2	1	4	1	1	1	1	1	1	1	1	1	1	1	0	0	21	0	33									63.6	
1322	Ballyedmond	Cork		4	2	2	2	1	1	4	0	1	0	1	1	1	1	1	1	1	1	1	0	21	0	33									63.6	
1323	Cleanderry Wood	Cork		4	3	2	0	3	2	4	1	0	1	1	1	1	1	1	1	1	1	1	0	24	0	33									72.7	
1324	Glenbeg	Cork		3	3	2	1	3	0	3	1	0	1	1	1	1	1	1	1	1	1	0	0	20	0	33									60.6	
1325	Dunbeacon	Cork		3	2	0	1	2	0	3	0	1	1	1	1	1	1	1	1	1	1	0	0	16	0	33									48.5	
1326	Ballyhallagh	Cork		3	3	0	0	3	0	2	1	1	0	1	1	1	1	1	1	1	1	1	0	17	0	33									51.5	
1327	Ardglass	Cork		2	3	2	1	3	0	4	1	1	0	1	1	1	1	1	1	1	1	0	0	20	0	33									60.6	
1329	Barrees	Cork		4	3	2	2	3	1	4	2	0	1	1	1	1	1	1	1	1	1	1	0	26	0	33									78.8	
1330	Ballyannan	Cork		4	1	0	2	0	0	4	0	1	1	1	0	1	1	1	1	1	1	0	0	15	0	33									45.5	
1332	Cloheen Strand Intake	Cork		1	1	2	0	3	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	10	0	33									30.3	
1334	Priory Wood	Cork		4	3	2	0	3	0	2	2	1	1	1	1	1	1	1	1	1	1	1	0	22	0	33									66.7	
1335	Rochestown Wood	Cork		1	1	2	1	3	0	2	1	1	1	1	0	0	1	1	1	1	1	1	0	15	0	33									45.5	
1336	Curraghbinny Wood	Cork		4	1	1	1	2	1	4	0	1	1	0	1	1	0	1	1	1	1	0	0	18	0	33									54.5	
1337	Modeligo Wood	Cork		1	1	2	0	2	0	2	0	1	0	0	1	0	1	1	1	1	1	0	0	11	0	33									33.3	
1338	Derrylahan	Cork		4	3	2	0	3	1	2	2	0	1	1	1	1	1	1	1	1	1	0	0	21	0	33									63.6	
1339	Kilnagurteen	Cork		3	3	2	0	3	0	3	2	1	1	1	1	1	1	1	1	1	1	1	0	22	0	33									66.7	
1340	Curraghmore Wood	Cork		4	2	2	1	3	1	4	1	1	0	1	0	1	0	1	0	1	0	0	0	21	0	33									63.6	
1342	Lougheagle	Cork		2	2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	14	0	33									42.4	
1343	Banteer	Cork		3	2	2	1	3	0	2	1	0	1	1	1	1	1	1	1	1	0	0	0	17	0	33									51.5	
1344	Blarney Castle Woods	Cork		3	1	2	2	3	0	3	0	1	0	1	1	1	0	0	0	0	0	0	0	17	0	33									51.5	
1345	Glashgariff River	Cork		1	3	2	1	3	0	1	3	1	0	1	1	1	1	1	1	1	1	1	0	19	0	33									57.6	
1347	Killaneer	Cork		4	3	1	2	3	1	3	2	1	0	1	1	1	1	1	1	1	1	1	0	24	0	33									72.7	
1348	Glebe	Cork		3	2	2	0	3	1	2	1	1	0	1	1	1	1	1	1	1	1	0	0	18	0	33									54.5	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1349	Carrignacurra	Cork		3	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	19	0	33							57.6	
1351	Creggane	Cork		1	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	5	0	33									15.2	
1353	Renny Lower	Cork		2	2	2	1	1	0	2	0	1	0	1	1	1	0	0	0	0	13	0	33										39.4	
1354	Glenville	Cork		2	2	1	0	3	0	4	1	1	1	1	1	1	1	1	0	19	0	33											57.6	
1355	Philip's Wood	Cork		1	2	2	1	3	0	3	1	1	1	1	1	1	1	1	0	19	0	33											57.6	
1356	Knockardsharriv	Cork		4	3	2	2	3	0	3	3	0	1	1	1	1	1	1	0	25	0	33											75.8	
1357	Cooldurragha	Cork		3	2	2	1	3	0	3	1	1	0	1	1	1	1	0	0	19	0	33											57.6	
1358	Roughfield Wood	Cork		3	2	2	2	3	0	4	1	1	1	1	1	1	1	0	0	22	0	33											66.7	
1359	Coolmoohan Wood	Cork		2	2	2	1	3	0	2	1	1	0	1	1	1	1	1	0	18	0	33											54.5	
1360	Rathmore Wood	Cork		4	2	1	1	3	0	4	1	1	1	1	1	1	1	0	0	21	0	33											63.6	
1361	Cloheena Wood	Cork		4	3	2	1	3	1	3	3	0	1	1	1	1	1	1	0	25	0	33											75.8	
1363	Wet Wood Cork	Cork		2	2	2	2	3	0	3	1	1	0	0	0	1	0	0	17	0	33												51.5	
1364	Corbally South	Cork		2	3	2	0	3	0	2	1	0	1	1	0	1	1	1	0	17	0	33											51.5	
1365	Glencam	Cork		4	3	0	1	3	0	3	2	0	1	1	1	1	1	1	0	21	0	33											63.6	
1367	Lahardane More	Cork		2	2	2	1	3	0	1	1	0	1	0	1	1	1	1	0	16	0	33											48.5	
1370	Inishbeg	Cork		2	2	2	1	2	0	3	0	0	1	1	0	1	0	0	15	0	33												45.5	
1371	Bridge Wood	Cork		3	2	1	1	1	0	2	0	0	1	1	1	1	1	0	0	14	0	33											42.4	
1372	Curradonohoe	Cork		4	2	2	0	3	1	2	1	0	1	1	1	1	1	0	19	0	33												57.6	
1374	Aghabeg	Cork		2	2	2	0	3	2	1	1	0	1	1	1	1	1	1	0	18	0	33											54.5	
1375	Leahill	Cork		3	2	2	1	3	2	2	1	0	1	1	1	1	1	1	0	21	0	33											63.6	
1379	Curragh East	Cork		2	2	2	1	3	1	2	1	0	1	1	1	1	1	1	0	19	0	33											57.6	
1381	Drombrow Lake	Cork		1	2	2	0	3	0	1	2	1	1	1	1	1	1	0	0	16	0	33											48.5	
1382	Derreenacusha	Cork		1	3	2	0	3	0	0	1	0	1	1	1	1	1	0	0	14	0	33											42.4	
1383	Dromore	Cork		2	2	2	0	3	2	2	1	0	1	1	1	1	1	1	0	19	0	33											57.6	
1386	Dromasta	Cork		4	3	2	0	3	2	2	1	1	0	1	1	1	1	1	0	22	0	33											66.7	
1388	Carrigskullihy	Cork		1	2	2	0	3	0	1	1	0	1	0	1	1	1	0	0	13	0	33											39.4	
1389	Carrigskullihy Wood	Cork		2	3	2	1	3	1	3	1	1	1	1	1	1	1	1	0	22	0	33											66.7	
1390	Farnanes Wood	Cork		3	3	2	0	3	1	4	3	1	1	1	1	0	1	1	0	24	0	33											72.7	
1391	Dreenwanish Wood	Cork		3	3	1	0	3	1	3	2	1	1	1	1	1	1	1	0	22	0	33											66.7	
1393	Derryvacorneen East	Cork		2	2	2	1	3	0	2	1	0	0	1	1	1	1	1	0	17	0	33											51.5	
1394	Inchideraille	Cork		3	2	2	0	3	1	3	1	0	1	1	1	1	1	0	0	19	0	33											57.6	
1395	Curracahill	Cork		3	2	2	1	3	2	3	1	0	1	1	1	1	1	0	0	21	0	33											63.6	
1396	Gneeves	Cork		3	3	2	0	3	0	3	2	0	1	1	1	1	1	0	0	20	0	33											60.6	
1399	Inchileigh	Cork		2	2	1	1	1	1	4	0	1	1	1	1	1	1	1	0	18	0	33											54.5	
1400	Cullentra Wood	Sligo		4	3	2	1	3	1	4	3	1	0	1	1	1	1	1	0	26	0	33											78.8	
1401	Union Wood	Sligo		3	3	0	1	3	0	4	1	1	1	0	1	1	0	1	0	19	0	33											57.6	
1403	Mountain Wood	Sligo		4	3	2	1	3	0	4	2	1	1	1	1	1	1	0	0	23	0	33											69.7	
1404	Clogher (Sligo)	Sligo		4	3	2	0	3	0	4	2	1	1	1	1	1	1	0	0	23	0	33											69.7	
1405	Kilbrattan Wood	Sligo		4	3	2	0	3	2	4	2	1	1	1	1	0	1	0	0	24	0	33											72.7	

Site No.	Woodland Name	County	Max. Score	Biodiversity Indicators																Score	Missing values	Max available	%Score										
				Vascular plant richness	Bryophyte richness	Free Regeneration	Horizontal Diversity	Native Basal Area	Notable Species	Area	Native Woodland Types	1840s	Adj s-n habitats	Hydrological Features	Woody debris + Dead Wood	Manmade features	Annex Woodland	Tufa Springs															
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33														100.0
1408	Cleaveragh Demesne	Sligo		4	3	2	0	3	0	4	1	1	1	1	1	0	1	0	22	0	33											66.7	
1409	Hazelwood Demesne	Sligo		4	3	2	1	3	1	4	2	1	1	1	1	1	1	0	26	0	33											78.8	
1410	Tanrego	Sligo		4	3	2	0	3	0	4	1	0	1	1	1	0	1	0	21	0	33											63.6	
1411	Sliswood	Sligo		1	3	1	1	3	1	3	1	1	1	1	1	1	1	0	20	0	33											60.6	
1412	Clogh Wood	Sligo		4	3	2	0	3	2	3	2	1	1	1	1	1	0	0	24	0	33											72.7	
1413	Drumfad	Sligo		3	3	1	0	3	1	2	1	0	1	1	0	0	0	0	16	0	33											48.5	
1417	Sroove	Sligo		2	3	2	0	3	2	1	1	1	1	1	1	1	0	0	19	0	33											57.6	
1418	Correagh	Sligo		1	2	0	1	3	0	2	1	1	0	0	0	1	1	0	13	0	33											39.4	
1419	Derkmore Wood	Donegal		4	3	0	1	3	0	3	1	0	1	1	0	0	1	0	18	0	33											54.5	
1420	Rathmullan Wood	Donegal		4	3	2	1	3	2	4	2	1	1	1	1	1	1	0	27	0	33											81.8	
1421	Duntally Wood	Donegal		4	3	1	0	3	1	4	2	1	1	1	1	1	0	0	23	0	33											69.7	
1422	Ballyarr Wood	Donegal		4	3	2	2	3	2	4	3	1	1	1	1	1	1	0	29	0	33											87.9	
1423	Mullangore Wood	Donegal		4	3	0	1	3	1	5	1	1	1	1	1	0	1	0	23	0	33											69.7	
1424	Derry Beg	Donegal		1	3	2	1	3	1	1	1	0	1	1	0	0	1	0	16	0	33											48.5	
1426	Derrylahan North	Donegal		1	3	2	0	3	0	0	1	0	1	1	1	0	0	0	13	0	33											39.4	
1427	Ardnamona Wood	Donegal		4	3	2	1	3	3	5	3	1	1	1	1	1	1	0	30	0	33											90.9	
1428	Lougheask Demesne	Donegal		4	3	2	2	3	3	4	1	1	1	1	1	1	1	0	28	0	33											84.8	
1429	Cottian Wood	Donegal		4	3	2	1	3	2	4	3	1	1	1	1	1	1	0	28	0	33											84.8	
1430	Salt Pans	Donegal		4	3	2	1	3	3	4	3	1	1	1	0	1	1	0	28	0	33											84.8	
1432	Foxhall	Donegal		4	3	2	1	3	2	4	2	1	1	1	1	1	1	0	27	0	33											81.8	
1433	Glenineeny	Donegal		4	3	2	0	3	3	4	3	1	1	1	0	1	0	0	26	0	33											78.8	
1434	Ballynarry	Donegal		4	3	2	1	3	1	4	3	1	1	1	1	1	1	0	27	0	33											81.8	
1435	Doon Glebe	Donegal		4	3	2	0	3	2	4	2	1	1	1	1	1	0	0	25	0	33											75.8	
1436	Keeloges	Donegal		4	3	2	1	3	2	4	3	1	1	1	1	1	1	0	28	0	33											84.8	
1438	Muff (Donegal)	Donegal		4	3	2	0	3	0	4	3	0	1	1	1	1	1	0	23	0	33											69.7	
1439	Ards Forest Park	Donegal		4	3	2	1	3	3	4	3	1	1	1	1	1	2	0	30	0	33											90.9	
1440	Dunwiley	Donegal		2	3	2	0	3	0	3	2	1	1	1	0	1	0	0	19	0	33											57.6	
1441	Carndonagh	Donegal		3	3	2	1	3	1	4	2	1	1	0	0	0	1	0	22	0	33											66.7	
1442	Glennagiveny	Donegal		3	3	2	0	3	0	2	2	0	1	1	1	0	0	0	18	0	33											54.5	
1447	Portlough	Donegal		2	2	1	0	3	0	3	1	0	1	1	0	0	0	0	14	0	33											42.4	
1448	Bohullion Lower	Donegal		4	3	1	0	3	1	3	2	1	1	1	1	1	0	0	22	0	33											66.7	
1449	Feddyglass Wood	Donegal		2	3	2	0	2	1	3	0	1	0	1	1	0	1	0	17	0	33											51.5	
1455	Oughtnadrin	Donegal		4	3	2	1	3	1	4	2	0	1	1	1	1	0	0	24	0	33											72.7	
1456	Carrickbreeny	Donegal		4	3	2	0	3	3	3	1	1	1	1	1	1	0	0	24	0	33											72.7	
1459	Aghaneenagh	Cork		4	2	2	1	3	1	4	2	1	1	1	1	1	2	0	26	0	33											78.8	
1460	Kilmeen Wood	Cork		2	2	1	1	3	0	2	1	1	0	1	0	1	1	0	16	0	33											48.5	
1463	Dunmarklun	Cork		4	3	1	0	3	0	3	3	1	1	1	1	1	0	0	22	0	33											66.7	
1464	Kilcanway	Cork		2	2	2	2	3	0	1	2	0	1	1	0	1	0	0	17	0	33											51.5	
1465	Duvglasha	Cork		4	3	1	0	3	0	2	1	0	1	1	1	1	0	0	18	0	33											54.5	

Site No.	Woodland Name	County	Max. Score	<div>Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj s-n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score Missing values Max available %Score</div>																		
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33			
1466	Kilmichael	Cork		4	3	1	1	3	1	1	2	0	1	1	1	1	0	0	20	0	33	60.6
1468	Ringnanean Wood	Cork		3	3	1	0	1	1	2	0	1	1	1	1	1	0	0	16	0	33	48.5
1471	Garranes	Cork		4	3	2	0	3	0	3	2	0	1	1	1	1	1	0	22	0	33	66.7
1472	Ballinphellic	Cork		3	2	2	1	3	0	3	2	1	1	1	1	1	0	0	21	0	33	63.6
1473	Templemichael	Cork		4	3	2	2	2	0	3	2	1	1	1	1	1	1	0	24	0	33	72.7
1476	Lackenacummeen	Cork		3	2	0	1	3	0	0	1	0	1	1	1	1	1	0	15	0	33	45.5
1479	Courtmacsherry	Cork		4	2	0	1	0	0	3	0	1	1	0	1	1	0	0	14	0	33	42.4
1481	Ummerra Wood	Cork		4	2	2	2	1	1	3	1	1	1	1	1	1	1	0	22	0	33	66.7
1482	Tubbrid (Cork)	Cork		2	2	0	0	3	1	2	2	1	0	1	1	1	1	0	17	0	33	51.5
1483	Knocknamallavoge	Cork		2	2	0	1	3	1	3	2	0	0	1	1	1	0	0	17	0	33	51.5
1484	Ballyclogh	Cork		1	1	1	1	1	0	1	0	1	0	1	1	1	0	0	10	0	33	30.3
1485	Glenbower Wood	Cork		4	1	1	2	3	0	1	1	1	0	1	1	1	0	0	17	0	33	51.5
1486	Drinshane Beg	Cork		2	2	1	1	3	0	4	1	1	1	1	1	1	1	0	20	0	33	60.6
1488	Scartbarry	Cork		4	2	1	1	3	0	3	2	1	1	1	1	1	1	0	22	0	33	66.7
1489	Ballyduhig North	Cork		3	2	1	1	3	0	2	1	0	1	1	1	1	0	0	17	0	33	51.5
1490	Lisdangan	Cork		3	3	2	1	3	0	3	3	1	0	1	0	1	1	0	22	0	33	66.7
1491	French Wood	Cork		4	3	2	2	3	2	4	3	1	1	1	0	1	1	0	28	0	33	84.8
1492	Lackendarragh South	Cork		1	1	2	0	3	0	3	1	1	0	0	1	1	1	0	15	0	33	45.5
1493	Glanatnaw Wood	Cork		1	2	2	0	3	0	2	1	0	1	0	0	1	1	0	14	0	33	42.4
1494	Gortnascreeny Wood	Cork		2	2	2	0	3	0	1	1	0	1	1	0	1	1	0	15	0	33	45.5
1495	Camillan Wood	Kerry		4	2	0	2	3	2	4	2	1	1	1	1	0	1	0	24	0	33	72.7
1496	Poulaphuca Wood	Sligo		4	3	2	1	3	0	2	3	0	1	1	1	0	0	0	21	0	33	63.6
1497	Bealkelly Woods	Clare		3	3	1	0	3	1	4	2	1	1	1	1	1	1	0	23	0	33	69.7
1498	Drummin Wood	Galway		4	3	2	1	3	1	4	3	1	1	1	1	1	1	0	27	0	33	81.8
1499	Caher	Clare		3	3	1	0	3	0	1	1	0	1	1	1	0	1	0	16	0	33	48.5
1500	Dromore Nature Reserve	Clare		4	3	2	1	3	3	5	2	1	1	1	1	1	0	0	28	0	33	84.8
1501	Moyree Wood	Clare		3	2	2	0	3	2	4	1	0	1	1	1	1	0	0	21	0	33	63.6
1502	Killeen Wood	Clare		1	1	1	0	3	3	4	1	1	1	1	1	1	0	0	19	0	33	57.6
1503	Edenvale Wood	Clare		3	2	2	0	3	1	4	1	1	1	0	1	1	0	0	20	0	33	60.6
1504	Drummina	Clare		2	2	2	1	3	2	4	1	0	1	0	1	1	0	0	20	0	33	60.6
1505	Tullyodea	Clare		3	2	2	0	3	0	5	1	0	1	1	1	1	0	0	20	0	33	60.6
1507	Bealnalicka	Clare		3	2	2	1	3	3	4	1	1	1	1	1	1	0	0	24	0	33	72.7
1508	Cloggagh Wood	Clare		4	3	2	1	3	1	4	2	1	1	1	0	1	1	0	25	0	33	75.8
1509	Ardcarney	Clare		4	3	2	0	3	3	5	1	0	0	1	1	1	0	0	24	0	33	72.7
1510	Ross	Clare		4	2	2	0	3	3	4	1	1	1	1	1	1	0	0	24	0	33	72.7
1511	Ballymacloon East	Clare		4	2	2	0	3	2	4	1	0	1	0	0	1	0	0	20	0	33	60.6
1512	Caher Rice	Clare		3	3	1	2	1	1	4	0	1	0	1	1	0	0	0	18	0	33	54.5
1513	Cahircalla Wood	Clare		4	2	2	0	1	3	4	2	1	1	1	1	1	0	0	23	0	33	69.7
1514	Ballyconry	Clare		1	1	1	0	3	0	4	1	0	1	0	0	0	0	0	12	0	33	36.4

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species Area		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1515	Garrannon Woods	Clare		4	3	2	2	3	2	4	2	1	0	1	1	1	1	1	1	1	1	1	0	27	0	33							81.8	
1516	Craggaunowen	Clare		3	2	2	1	2	1	3	2	0	1	1	1	1	1	1	1	1	1	0	0	20	0	33							60.6	
1519	Feagarroge	Clare		3	2	1	1	1	0	2	0	1	0	0	0	0	1	0	0	0	0	1	0	12	0	33							36.4	
1520	Carrowdotia South	Clare		2	1	0	1	1	1	3	0	1	1	0	0	1	1	0	0	1	1	0	13	0	33							39.4		
1522	Kilmore (Clare)	Clare		3	1	1	0	3	0	2	1	1	1	1	1	1	1	0	0	1	1	0	16	0	33							48.5		
1527	Magherabaun	Clare		1	3	1	1	3	0	2	1	1	0	1	1	1	1	1	1	1	1	0	17	0	33							51.5		
1534	Muckinish	Clare		1	2	2	0	3	0	2	1	0	0	1	1	0	0	0	0	1	0	0	13	0	33							39.4		
1535	Gragan West	Clare		1	2	2	1	3	1	4	1	0	1	0	0	1	0	0	1	0	0	17	0	33								51.5		
1537	Slieve Carran	Clare		1	1	0	0	3	1	3	1	0	1	1	0	1	0	1	0	0	13	0	33									39.4		
1538	Ballyeigher	Clare		3	3	2	0	0	3	4	1	1	1	0	1	1	0	1	0	0	20	0	33									60.6		
1539	Boulleevin West	Clare		1	2	1	0	3	1	3	1	0	0	0	0	1	0	0	1	0	0	13	0	33								39.4		
1540	Bouleevin East	Clare		1	1	1	0	3	0	3	1	0	1	0	0	1	0	0	1	0	0	12	0	33								36.4		
1541	Clab	Clare		1	2	1	0	3	1	1	1	0	1	1	1	1	0	0	0	13	0	33										39.4		
1542	Knockanira	Clare		3	3	2	2	3	0	0	1	1	1	1	1	0	1	0	0	18	0	33										54.5		
1543	Glenmore Wood	Waterford		3	3	2	1	3	1	4	2	1	1	1	1	1	1	1	1	0	25	0	33									75.8		
1545	Barranamanoge Wood	Waterford		4	3	0	1	1	0	4	1	1	1	1	1	1	1	0	0	19	0	33										57.6		
1547	Ballyogan Beg	Clare		1	1	1	0	3	1	3	1	0	1	0	0	1	0	0	13	0	33											39.4		
1549	Cahiracon South	Clare		1	1	2	2	3	0	1	2	1	1	0	1	1	1	1	0	17	0	33										51.5		
1552	Cahermurphy	Clare		4	3	2	2	3	2	3	2	1	1	1	1	1	1	1	0	27	0	33										81.8		
1554	Knocknageeha	Clare		4	2	2	2	2	1	3	3	1	1	1	1	1	1	1	0	25	0	33										75.8		
1555	Glenomra Wood	Clare		4	3	2	0	3	2	4	3	1	1	1	0	1	2	0	27	0	33											81.8		
1559	Cregg	Clare		2	3	2	0	3	0	4	2	0	1	1	1	0	0	0	19	0	33											57.6		
1560	Dooros	Clare		3	3	2	0	3	0	2	2	0	1	1	1	0	1	0	19	0	33											57.6		
1561	Knockaphort	Clare		4	3	2	1	3	1	4	2	0	1	1	0	0	1	0	23	0	33											69.7		
1562	Drummaan South	Clare		4	2	2	1	3	1	3	2	0	1	1	1	1	1	0	23	0	33											69.7		
1563	Aughinish Wood	Clare		1	2	2	0	3	0	2	1	1	1	0	0	0	0	0	13	0	33											39.4		
1564	Cappaghbaun Park	Clare		4	3	1	1	3	3	4	3	0	1	1	1	1	1	1	0	27	0	33										81.8		
1567	Maryfort	Clare		4	2	2	2	3	0	4	3	1	1	1	0	1	1	0	25	0	33											75.8		
1568	Leaghort	Clare		3	3	1	0	3	0	2	1	0	1	1	1	1	0	0	17	0	33											51.5		
1569	Caherkinallia Wood	Clare		2	2	2	1	3	1	1	2	0	1	0	0	1	1	0	17	0	33											51.5		
1571	Poulivaun Wood	Clare		2	1	2	0	3	1	4	1	1	0	1	0	1	0	0	17	0	33											51.5		
1573	Ballymoloney Woods	Clare		2	2	1	1	3	0	0	1	0	1	0	1	1	1	0	13	0	33											39.4		
1574	Ballygarreen	Clare		4	3	2	1	3	1	4	1	0	1	1	1	1	1	1	0	24	0	33										72.7		
1575	Carrownakilly	Clare		4	3	2	1	1	0	2	2	0	1	1	0	1	0	0	18	0	33											54.5		
1577	Doonass Demesne	Clare		2	2	2	1	1	1	1	1	1	0	1	1	1	0	1	15	0	33											45.5		
1578	Ballymacdonnell	Clare		2	2	2	0	3	0	2	1	0	1	1	1	1	1	0	16	0	33											48.5		
1579	Cullaun Woods	Clare		4	3	2	0	3	1	2	1	1	1	1	1	0	1	0	21	0	33											63.6		
1580	Ballykelly Woods	Clare		3	3	2	2	3	0	3	1	1	1	1	1	0	1	1	0	22	0	33										66.7		
1585	Cragbrien	Clare		4	3	2	0	3	0	3	1	1	0	1	0	0	0	0	18	0	33											54.5		

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj-s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1587	Derrymore Wood	Clare		4	3	2	1	3	0	4	1	1	1	1	0	1	1	1	0	1	1	0	1	1	0	23	0	33					69.7	
1588	Derrygoul Wood	Clare		3	3	2	0	3	1	3	2	1	1	0	0	1	1	0	1	1	0	1	1	0	21	0	33					63.6		
1591	Commons South	Clare		2	1	2	0	3	2	3	1	0	0	1	0	1	0	1	0	1	0	0	16	0	33							48.5		
1594	Garryland Wood	Galway		4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	1	1	1	0	31	0	33							93.9		
1595	Ballynastaig Wood	Galway		4	3	2	0	3	2	3	2	1	1	1	0	1	1	0	1	0	0	23	0	33								69.7		
1596	Normangrove	Galway		3	3	2	0	3	3	4	1	0	1	0	1	1	1	0	1	0	0	22	0	33								66.7		
1597	Gortacarnaun	Galway		4	3	2	0	3	3	5	3	1	1	1	1	1	1	1	1	1	1	0	29	0	33							87.9		
1599	Gortnahoon	Galway		2	2	2	0	3	3	4	1	1	1	0	1	1	1	0	0	21	0	33										63.6		
1600	Shannawoneen Wood	Galway		4	3	2	1	3	3	4	3	1	1	1	1	1	1	1	1	0	29	0	33									87.9		
1601	Derryclare	Galway		4	3	2	2	3	3	3	2	1	1	1	1	1	1	2	0	29	0	33										87.9		
1602	Ballynahinch	Galway		4	3	2	1	3	1	3	1	1	0	1	1	1	0	1	0	22	0	33											66.7	
1603	Killymonaun	Galway		4	3	2	0	3	2	2	1	0	1	1	1	1	0	0	0	20	0	33											60.6	
1605	Furbogh Wood	Galway		3	2	0	1	3	3	4	1	1	1	1	1	1	1	1	0	23	0	33											69.7	
1606	Ross Demense	Galway		2	2	2	0	2	0	1	1	1	1	1	1	1	0	0	0	14	0	33											42.4	
1608	Derrycrag Wood	Galway		4	3	1	2	1	2	4	1	1	0	1	1	1	1	1	0	23	0	33											69.7	
1609	Rosturra Wood	Galway		2	2	2	0	3	0	2	2	1	1	0	1	0	1	0	0	16	0	33											48.5	
1610	Pollnaknockaun Wood	Galway		4	3	2	2	3	0	5	2	1	1	1	1	1	1	1	1	0	27	0	33										81.8	
1612	Killaghmore	Galway		2	3	0	1	2	0	1	1	1	1	0	0	0	0	0	0	12	0	33											36.4	
1614	Rinmaher Wood	Galway		4	2	2	0	3	2	3	2	1	1	1	1	0	0	1	0	22	0	33											66.7	
1616	Garryduff	Galway		4	2	2	1	3	2	3	2	1	1	1	1	1	1	1	0	25	0	33											75.8	
1617	Brimnoge Island	Galway		1	2	2	1	3	0	0	2	0	0	1	0	0	0	0	0	12	0	33											36.4	
1618	Clonfert (Seymour) North	Galway		3	2	2	1	3	1	2	1	1	1	1	1	0	1	0	0	19	0	33											57.6	
1619	Derryvunlam	Galway		3	3	2	1	3	1	4	1	1	0	1	0	1	0	1	0	21	0	33											63.6	
1621	Limepark North	Galway		4	2	2	0	3	2	4	1	1	0	0	1	1	1	0	0	21	0	33											63.6	
1622	Horse Shoe Wood	Galway		3	3	2	2	3	0	4	2	1	1	0	1	1	1	1	0	24	0	33											72.7	
1624	Annaghwood	Galway		4	3	2	2	3	3	3	2	1	0	1	1	1	0	2	0	27	0	33											81.8	
1625	Drumsnauv	Galway		2	3	2	0	3	3	2	1	0	0	1	1	0	0	0	18	0	33												54.5	
1626	Lismore Woods	Waterford		4	3	2	2	3	3	5	2	1	1	1	1	1	1	0	0	29	0	33											87.9	
1629	Clydagh	Galway		4	3	2	1	3	3	4	2	1	0	1	0	1	0	1	0	25	0	33											75.8	
1630	Kilbeg Lower	Galway		4	3	2	1	3	3	3	3	1	1	1	1	1	0	0	0	26	0	33											78.8	
1635	Ellis Wood	Galway		3	1	0	0	3	0	0	1	0	1	1	1	1	1	0	0	12	0	33											36.4	
1636	Garbally Demesne	Galway		4	3	2	2	3	2	3	3	1	0	1	0	1	0	1	0	25	0	33											75.8	
1642	Barna	Galway		1	1	2	1	3	0	1	1	1	1	0	0	1	0	0	13	0	33												39.4	
1643	Dernasliggaun Wood	Galway		3	3	1	1	3	0	3	2	0	1	1	1	0	0	1	0	19	0	33											57.6	
1646	Skehanagh	Galway		3	2	2	0	3	2	1	1	1	1	1	0	1	0	0	18	0	33												54.5	
1648	Barroughter	Galway		1	2	2	0	3	0	1	1	0	1	0	0	0	0	0	11	0	33												33.3	
1649	Barranny	Galway		1	1	2	0	3	0	0	1	0	1	0	0	0	0	1	0	10	0	33											30.3	
1650	Aghrane	Galway		3	3	2	0	3	0	2	2	1	1	1	1	1	0	0	19	0	33												57.6	
1653	Ballyglooneen	Galway		2	2	1	0	1	0	0	1	1	0	1	1	1	1	0	0	11	0	33											33.3	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																	Bryophyte richness																	Free Regeneration																	Horizontal Diversity																	Native Basal Area																	Notable Species																	Area																	Native Woodland Types																	1840s																	Adj s-n habitats																	Hydrological Features																	Woody debris + Dead Wood																	Manmade features																	Annex Woodland																	Tufa Springs																	Score																	Missing values																	Max available																	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Site No.	Woodland Name	County	Max. Score	Vascular plant richness Bryophyte richness Free Regeneration Horizontal Diversity Native Basal Area Notable Species Area Native Woodland Types 1840s Adj s-n habitats Hydrological Features Woody debris + Dead Wood Manmade features Annex Woodland Tufa Springs Score																	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33				
1712	Glanlough Woods	Kerry		3	2	0	1	3	0	3	1	0	1	1	0	1	1	0	17	0	33	51.5	
1715	Drombane	Kerry		4	3	2	1	3	3	4	1	1	1	1	1	1	1	0	27	0	33	81.8	
1717	Lackdotia	Cork		2	3	2	1	3	0	0	1	0	1	1	1	0	0	0	15	0	33	45.5	
1719	Farrandalouge	Kerry		4	2	1	1	3	1	2	2	0	1	1	0	1	1	0	20	0	33	60.6	
1720	Burnham Woodland	Kerry		3	1	1	2	2	0	2	1	0	1	1	1	1	0	0	16	0	33	48.5	
1722	Liscarney	Kerry		2	2	0	2	3	0	2	1	0	1	1	0	1	0	0	15	0	33	45.5	
1724	Derrymore East	Kerry		2	1	1	1	3	0	0	1	0	1	1	1	1	1	0	14	0	33	42.4	
1725	Ballyheigue	Kerry		1	1	1	1	1	0	1	0	1	0	0	1	1	0	0	9	0	33	27.3	
1727	Reacaslagh Wood	Kerry		2	2	2	0	3	0	1	1	1	1	1	1	0	0	0	15	0	33	45.5	
1729	Cloghane	Kerry		3	1	2	1	3	0	0	1	0	1	1	0	1	0	0	14	0	33	42.4	
1730	Killaclohane	Kerry		3	2	2	1	3	0	2	1	1	0	1	1	1	0	0	18	0	33	54.5	
1731	Tulligealane	Kerry		2	3	2	1	3	0	1	1	0	1	1	0	1	0	0	16	0	33	48.5	
1733	Derreeny	Kerry		2	3	1	1	3	0	2	1	0	1	1	0	1	0	0	16	0	33	48.5	
1734	Drom East	Kerry		3	2	2	1	3	1	4	1	1	1	1	1	1	1	0	23	0	33	69.7	
1735	Carrig East	Kerry		4	3	2	1	3	2	4	3	0	1	1	1	1	1	0	27	0	33	81.8	
1736	Oolagh East	Kerry		4	2	2	1	3	0	4	1	0	1	1	1	1	1	0	22	0	33	66.7	
1737	Graigues	Kerry		3	3	2	1	3	2	3	1	1	1	1	0	1	1	0	23	0	33	69.7	
1739	Kilgortaree Wood	Kerry		2	2	2	1	3	1	3	2	1	0	1	0	1	1	0	20	0	33	60.6	
1742	Drombeg	Kerry		3	2	2	1	3	0	0	1	0	0	1	0	1	0	0	14	0	33	42.4	
1743	Tarbert	Kerry		1	2	2	2	1	0	3	0	1	1	1	0	0	0	0	14	0	33	42.4	
1745	Banemore Wood	Kerry		3	3	2	1	3	1	3	1	1	1	1	0	1	1	0	22	0	33	66.7	
1746	Braumaddra	Kerry		3	3	2	1	3	0	1	2	1	1	1	1	1	1	0	21	0	33	63.6	
1747	Dromin Upper	Kerry		4	2	1	2	0	1	2	1	1	1	1	1	1	0	0	18	0	33	54.5	
1748	Glanageenty	Kerry		4	3	1	2	3	1	4	2	1	0	1	1	1	1	0	25	0	33	75.8	
1749	Dooneen Wood	Kerry		3	2	2	2	3	0	3	1	1	0	1	1	1	1	0	21	0	33	63.6	
1751	Beheenagh	Kerry		2	2	2	0	3	0	2	2	0	0	1	0	1	0	0	15	0	33	45.5	
1754	Gortnaskeagh	Kerry		3	2	1	1	3	1	1	1	0	1	1	1	1	0	0	17	0	33	51.5	
1755	Whitefield	Kerry		3	2	2	0	3	0	2	1	1	1	1	0	1	1	0	18	0	33	54.5	
1756	Ballynamuddagh	Cork/Waterford		3	3	1	1	3	0	4	1	1	1	1	1	1	1	0	22	0	33	66.7	
1758	Ballynagaul	Cork		4	3	1	1	1	0	3	2	1	1	1	1	1	0	0	20	0	33	60.6	
1759	Argadh Wood	Kerry		3	2	2	2	3	0	3	3	1	1	1	1	1	2	0	25	0	33	75.8	
1760	Brennan's Glen	Kerry		4	2	0	1	3	1	3	2	1	0	1	1	1	1	0	21	0	33	63.6	
1763	Pontoon Woods	Mayo		4	3	2	1	3	1	5	2	1	1	1	1	1	1	0	27	0	33	81.8	
1768	Barnarinia	Mayo		4	3	2	0	3	1	4	1	x	1	1	1	1	1	0	23	1	32	71.9	
1769	Raheens	Mayo		4	3	2	1	3	1	4	2	1	1	1	1	1	0	0	25	0	33	75.8	
1770	Kilbride	Mayo		4	3	2	1	3	2	4	1	x	1	1	0	1	1	0	24	1	32	75.0	
1772	Portroyal	Mayo		2	2	2	0	3	2	4	1	0	1	1	1	1	0	0	20	0	33	60.6	
1774	Creevagh north	Mayo		1	2	2	0	3	2	4	1	0	1	0	1	1	0	0	18	0	33	54.5	
1775	Coolcraun	Mayo		1	2	2	1	3	1	4	1	0	1	1	1	1	0	0	19	0	33	57.6	

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1777	Brackloon Woods	Mayo	4	3	2	2	3	1	4	3	1	1	1	1	1	1	1	1	1	1	1	1	0	28	0	33							84.8	
1778	Oldhead Wood	Mayo	4	3	2	1	3	1	4	1	1	1	1	1	1	1	1	1	1	1	1	0	25	0	33							75.8		
1779	Ardogommon Wood	Mayo	3	2	2	0	3	1	3	1	1	1	1	0	0	1	0	0	1	0	0	18	0	33								54.5		
1785	Treanlaur	Mayo	4	3	1	1	3	0	4	1	0	1	1	1	1	1	1	1	1	0	22	0	33									66.7		
1786	Rosturk	Mayo	3	2	0	1	1	0	3	1	0	1	1	1	1	1	1	0	0	15	0	33										45.5		
1789	Ballinknockane	Kerry	1	2	2	1	2	1	1	1	1	1	0	1	1	0	1	0	1	0	15	0	33									45.5		
1790	Carrigeen Wood	Kerry	3	3	1	1	3	0	1	1	1	1	1	1	1	1	0	1	0	18	0	33										54.5		
1791	Farrantooreen	Kerry	3	2	1	0	3	0	3	1	0	1	1	1	1	0	1	0	17	0	33											51.5		
1792	Glanbalyma	Kerry	4	3	1	1	3	1	3	2	1	1	1	1	1	1	1	1	0	24	0	33										72.7		
1793	Old Pike Wood	Kerry	3	1	1	2	3	1	1	1	1	1	1	0	0	0	1	0	16	0	33											48.5		
1794	Mucksna Wood	Kerry	4	3	1	2	2	1	3	0	1	1	1	1	1	1	1	1	0	22	0	33										66.7		
1795	Kinlooe	Mayo	4	3	2	0	3	2	2	1	1	1	1	1	0	1	0	0	21	0	33											63.6		
1796	Derrymore	Mayo	3	2	2	1	3	1	4	2	1	1	1	1	1	1	1	1	0	24	0	33										72.7		
1797	Carrowrevagh	Mayo	2	3	0	1	3	0	2	1	1	1	1	1	0	1	1	0	17	0	33											51.5		
1798	Lankill	Mayo	4	3	1	2	3	1	3	1	1	1	1	1	0	1	1	1	0	23	0	33										69.7		
1799	Aillebaun	Mayo	4	3	0	0	3	0	4	1	1	1	1	1	1	1	1	1	0	21	0	33										63.6		
1800	Prospect	Mayo	4	3	2	1	3	1	5	2	1	1	1	1	1	1	1	1	0	27	0	33										81.8		
1802	Cahermush	Mayo	1	2	2	1	3	1	2	1	0	1	0	1	0	1	1	0	0	16	0	33										48.5		
1803	Palmerstown	Mayo	4	2	1	2	3	0	3	1	1	1	1	1	0	1	0	0	20	0	33											60.6		
1804	Tawnyinlough	Mayo	4	3	2	0	3	1	3	1	1	1	1	1	0	0	0	0	20	0	33											60.6		
1805	Culliagh Wood	Mayo	2	2	2	1	3	1	4	1	1	1	1	0	1	1	1	1	0	21	0	33										63.6		
1806	Clooneen (Mayo)	Mayo	2	3	1	0	3	0	3	1	0	1	1	1	1	1	0	0	17	0	33											51.5		
1807	Coolaght	Mayo	4	2	2	1	3	1	3	2	0	1	1	1	1	1	1	1	0	23	0	33										69.7		
1808	Knockbaun	Mayo	4	3	1	2	3	1	4	2	1	1	1	1	1	1	0	0	25	0	33											75.8		
1810	Creggarve	Mayo	3	2	2	0	3	3	3	1	1	1	0	0	0	1	0	0	20	0	33											60.6		
1811	Liskilleen	Mayo	3	3	2	0	3	3	3	1	1	1	1	0	0	1	0	0	21	0	33											63.6		
1812	Ballycong	Mayo	3	2	2	0	3	0	4	2	0	1	1	1	1	1	0	0	20	0	33											60.6		
1814	Barcull	Mayo	2	2	2	1	3	1	1	1	0	1	1	1	0	1	1	0	17	0	33											51.5		
1816	Ballyhamlet	Waterford	4	3	2	1	3	1	4	3	1	1	1	1	0	1	1	0	26	0	33											78.8		
1818	White Well Wood	Waterford	4	3	2	1	1	2	4	1	1	1	1	1	1	1	1	0	23	0	33											69.7		
1819	The Grove	Waterford	4	2	2	2	2	2	3	1	1	1	1	1	1	1	1	0	24	0	33											72.7		
1820	Killeeshal	Waterford	4	3	1	0	3	0	3	1	1	1	1	1	1	1	1	0	21	0	33											63.6		
1821	Knocknaree	Waterford	3	1	1	0	3	0	4	2	1	1	1	1	0	1	1	0	19	0	33											57.6		
1822	Knockaunbrandaun	Waterford	2	2	0	1	3	0	4	1	0	1	1	1	0	1	0	0	16	0	33											48.5		
1823	Mountbolton	Waterford	2	1	0	0	0	0	4	1	1	1	1	1	1	1	1	0	14	0	33											42.4		
1824	Dromana	Waterford	3	2	0	1	0	1	2	1	1	0	1	1	1	0	1	0	14	0	33											42.4		
1826	Ballyeelinan Wood	Waterford	3	2	1	1	3	0	2	1	0	1	1	1	0	0	0	0	15	0	33											45.5		
1827	Bohaddon South	Waterford	3	3	2	1	3	0	2	2	1	1	1	1	1	1	1	0	22	0	33											66.7		
1830	Knockafrehane	Waterford	2	3	0	1	3	0	3	2	1	1	1	1	1	1	1	0	20	0	33											60.6		

Site No.	Woodland Name	County	Max. Score	Vascular plant richness			Bryophyte richness		Free Regeneration		Horizontal Diversity		Native Basal Area		Notable Species		Native Woodland Types		Adj s-n habitats		Hydrological Features		Woody debris + Dead Wood		Manmade features		Annex Woodland		Tufa Springs		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1	33														
1831	Ballymacarbry	Waterford		2	2	2	1	3	0	3	2	0	1	1	1	1	1	1	1	1	1	0	0	19	0	33							57.6	
1832	Tower Wood	Waterford		1	1	0	0	3	0	3	1	1	1	0	1	1	1	1	1	1	1	0	14	0	33								42.4	
1833	Kilmacomma	Waterford		3	2	2	0	3	0	2	1	0	0	1	1	1	1	1	1	1	0	0	16	0	33								48.5	
1834	Lyranearla	Waterford		1	1	0	2	3	0	2	1	1	1	1	1	1	1	1	1	1	1	0	16	0	33								48.5	
1835	Clonea	Waterford		1	2	2	0	3	0	2	1	1	0	0	0	1	1	1	1	1	0	14	0	33									42.4	
1837	Ballindysert	Waterford		3	1	2	1	3	0	3	1	1	1	1	1	1	1	1	1	1	1	0	20	0	33								60.6	
1838	Amberhill	Waterford		4	3	2	1	3	0	1	2	0	1	1	1	1	1	1	1	1	1	0	21	0	33								63.6	
1839	Ballycanvan Big	Waterford		3	3	1	1	3	1	2	1	1	1	1	1	0	1	1	1	0	20	0	33										60.6	
1842	Cladagh	Waterford		4	3	1	0	3	1	4	2	1	1	1	1	1	1	1	1	1	1	0	24	0	33								72.7	
1844	Rincrew Wood	Waterford		4	3	1	1	2	0	4	2	1	1	0	1	1	1	1	1	1	1	0	22	0	33								66.7	
1846	Ballynatray Demesne West	Waterford		3	3	0	2	3	1	4	2	1	1	1	1	1	1	1	1	1	1	0	24	0	33								72.7	
1849	Kilcannon	Waterford		1	2	2	0	3	0	3	1	0	1	1	1	1	1	1	1	1	1	0	17	0	33								51.5	
1851	Blenheim	Waterford		2	1	2	1	3	2	1	1	0	1	1	1	1	1	1	1	1	0	17	0	33									51.5	
1852	Toor Wood	Waterford		1	1	0	2	3	0	1	1	1	0	1	1	1	1	1	1	1	1	0	14	0	33								42.4	
1853	Hazel Wood, Waterford	Waterford		3	2	2	2	3	0	2	2	1	1	1	1	1	1	1	1	1	1	0	22	0	33								66.7	
1855	Carrigmoorna Wood	Waterford		1	2	1	1	2	0	3	1	1	1	0	1	1	1	1	1	0	0	15	0	33									45.5	
1856	Cappanahanaagh	Limerick		4	3	2	0	3	0	4	2	0	1	1	1	1	0	0	0	0	21	0	33										63.6	
1857	Newgarden North	Limerick		4	2	2	0	3	3	3	2	0	0	1	1	1	1	1	1	1	0	23	0	33									69.7	
1858	Aughnaglanny Valley	Tipperary		4	3	2	1	3	1	5	3	1	1	1	1	1	1	1	1	1	1	0	28	0	33									84.8
1859	Grove Wood	Tipperary		4	1	1	1	3	1	4	1	1	0	1	1	1	1	1	1	1	0	21	0	33									63.6	
1860	Cappamurragh	Tipperary		4	2	0	0	3	0	4	2	0	1	1	1	1	0	0	0	0	18	0	33										54.5	
1861	Knockanavar Wood	Tipperary		4	3	2	1	3	1	4	2	1	0	1	1	1	1	2	1	27	0	33											81.8	
1864	Glengarve Wood	Tipperary		1	1	0	1	3	0	1	1	0	0	0	1	0	1	0	1	0	10	0	33										30.3	
1865	Hollowpark	Mayo		4	2	2	2	2	1	3	1	1	1	0	1	1	1	0	0	21	0	33											63.6	
1866	Gortnafolla	Mayo		3	2	2	1	3	2	4	1	1	1	1	0	1	1	0	0	22	0	33											66.7	
1870	Scregg	Mayo		1	2	0	0	3	0	0	1	0	1	1	0	1	1	0	0	10	0	33											30.3	
1871	Newtown Wood (Mayo)	Mayo		1	3	2	0	3	0	3	1	0	1	0	1	0	1	1	0	16	0	33											48.5	
1872	Lissard More	Mayo		4	2	1	2	3	0	0	1	0	1	1	1	0	1	0	0	16	0	33											48.5	
1873	Cloonta	Mayo		4	3	2	1	3	0	0	1	0	1	0	1	0	1	1	0	17	0	33											51.5	
1876	Moyaliff	Tipperary		4	3	1	1	3	1	4	2	1	1	1	1	1	0	1	0	24	0	33											72.7	
1878	Drum Wood	Tipperary		2	2	2	1	3	0	4	1	1	0	1	1	1	1	1	1	0	20	0	33										60.6	
1881	Faha	Kerry		1	2	2	1	3	0	0	1	0	0	1	1	1	1	0	13	0	33												39.4	
1884	Ballyhorgan	Kerry		1	2	2	1	3	0	0	1	1	0	1	0	1	0	0	12	0	33												36.4	
1891	Turaheen	Tipperary		4	3	2	1	3	1	4	1	0	0	1	0	1	0	1	0	21	0	33											63.6	
1892	Longorchard	Tipperary		3	2	2	0	3	0	4	1	0	1	1	1	1	1	0	19	0	33												57.6	
1893	Kilduff	Tipperary		4	3	2	1	3	0	2	2	1	1	1	1	1	0	0	21	0	33												63.6	
1894	Ballycrenode Wood	Tipperary		3	2	2	0	3	1	3	1	1	0	1	1	1	1	0	19	0	33												57.6	
1895	Killough Hill	Tipperary		2	1	1	0	3	1	4	1	1	1	0	1	1	1	0	17	0	33												51.5	
1896	Friar's Lough Wood	Tipperary		2	2	1	1	3	1	3	2	0	1	1	1	1	0	0	18	0	33												54.5	

Site No.	Woodland Name	County	Max. Score	Ecological Features																		Score	Missing values	Max available	%Score
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	2	1						
1897	Lehinch	Tipperary	4	2	1	2	3	1	4	1	1	0	1	0	1	0	0	21	0	33	63.6				
1898	Inchinsquillib Wood	Tipperary	2	3	2	1	3	0	2	1	1	0	1	1	1	1	0	19	0	33	57.6				
1901	Powers Wood	Tipperary	2	1	2	0	3	1	2	1	1	1	1	1	1	0	0	17	0	33	51.5				
1902	Scaragh Woods East	Tipperary	1	1	1	2	3	0	2	1	1	0	1	1	1	1	0	16	0	33	48.5				
1903	Killavalla Wood	Tipperary	3	3	2	2	1	0	3	1	1	1	1	1	0	0	0	18	0	33	54.5				
1904	Longford Wood	Tipperary	1	2	1	2	3	0	2	1	1	1	1	1	1	0	0	17	0	33	51.5				
1905	Kyle	Tipperary	2	1	2	1	3	1	2	1	1	0	1	1	1	1	0	17	0	33	51.5				
1906	Kyatlea	Tipperary	2	1	2	1	3	0	2	1	0	1	1	0	1	0	0	15	0	33	45.5				
1907	Deer Park	Tipperary	1	1	0	1	2	0	2	1	0	0	1	1	0	0	0	10	0	33	30.3				
1908	Drom	Kerry	3	2	2	0	3	1	4	1	0	1	1	1	1	0	0	20	0	33	60.6				
1909	Keam	Kerry	3	3	1	2	3	0	2	2	0	1	1	1	1	1	0	21	0	33	63.6				
1910	Rusheen	Kerry	1	1	2	2	1	0	1	0	0	0	0	1	1	0	0	10	0	33	30.3				
1914	Formoyle West	Clare	2	2	2	0	3	1	1	1	0	1	0	0	0	1	0	14	0	33	42.4				
1915	Ballymalis	Kerry	3	2	0	0	3	0	2	1	0	1	1	1	1	1	0	16	0	33	48.5				
1916	Maulcallee	Kerry	4	2	2	1	3	2	3	2	1	1	1	1	1	1	0	25	0	33	75.8				
1918	Beheens Wood	Kerry	3	3	1	0	3	0	1	1	1	0	1	1	1	1	0	17	0	33	51.5				
1919	Foaty South	Cork	3	3	2	1	3	0	2	1	1	1	1	1	1	0	0	19	0	33	57.6				
1920	Foaty North	Cork	2	2	1	2	1	0	3	0	1	1	1	1	1	0	0	15	0	33	45.5				
1922	Ballydavid	Waterford	3	3	2	1	2	0	1	2	1	1	1	1	1	1	0	20	0	33	60.6				
1923	Corville	Tipperary	2	2	2	0	1	1	4	1	1	0	1	0	0	0	0	15	0	33	45.5				
1924	Patrickswell	Tipperary	4	1	2	1	3	1	2	2	1	1	1	1	1	1	0	22	0	33	66.7				
1925	Taylor's Wood	Tipperary	2	1	2	0	2	0	3	1	1	1	1	1	0	1	0	15	0	33	45.5				
1926	Ballyphilip	Tipperary	4	2	2	1	3	0	2	2	1	1	1	1	1	1	0	22	0	33	66.7				
1927	Kilcooly Abbey	Tipperary	2	3	0	0	3	2	3	1	0	1	1	1	0	0	0	16	0	33	48.5				
1928	Straheeny Grove	Galway	4	2	2	1	3	1	0	1	0	0	1	1	0	0	0	16	0	33	48.5				
1929	Cahiracon North	Clare	3	2	2	2	3	0	1	2	0	1	1	1	1	0	0	18	0	33	54.5				
1930	Ballynahinch Headland	Galway	4	2	2	2	3	1	1	1	1	1	1	1	0	1	0	21	0	33	63.6				
1931	Doon Lough East	Clare	3	2	2	0	3	0	0	1	0	1	1	0	1	0	0	14	0	33	42.4				
1932	Marl Bog	Tipperary	4	3	2	0	3	0	4	1	1	0	1	1	0	1	1	22	0	33	66.7				
1933	Carrowkilleen	Mayo	1	2	2	0	3	0	0	1	0	1	1	0	1	0	0	12	0	33	36.4				
1934	Clogher (Mayo)	Mayo	3	2	2	0	3	2	1	1	1	1	0	0	1	0	0	17	0	33	51.5				
1935	Lugboy Demesne	Mayo	1	2	2	1	3	0	2	1	1	1	0	0	1	0	0	15	0	33	45.5				
1936	Largan More	Mayo	3	3	1	0	3	0	1	1	0	1	1	0	1	0	0	15	0	33	45.5				
1950	Bounla Island	Tipperary	3	2	2	0	3	1	3	1	0	1	1	1	0	1	0	19	0	33	57.6				
1951	Ballinahinch	Tipperary	3	2	2	2	3	0	4	1	0	0	1	1	0	1	0	20	0	33	60.6				
1952	Johnstown	Tipperary	1	2	1	1	2	0	2	0	1	1	0	0	0	0	0	11	0	33	33.3				
1953	Castletlough	Tipperary	4	2	2	2	3	2	4	2	1	0	1	0	1	2	0	26	0	33	78.8				
1954	Garrynatineel	Tipperary	4	3	2	1	3	0	4	1	0	1	1	0	1	0	0	21	0	33	63.6				
1955	Moanroan	Tipperary	4	2	1	1	3	1	4	1	0	1	1	1	0	0	0	19	0	33	57.6				

Site No.	Woodland Name	County	Max. Score	Vascular plant richness																	Bryophyte richness																	Free Regeneration																	Horizontal Diversity																	Native Basal Area																	Notable Species																	Area																	Native Woodland Types																	1840s																	Adj s-n habitats																	Hydrological Features																	Woody debris + Dead Wood																	Manmade features																	Annex Woodland																	Tufa Springs																	Score																	Missing values																	Max available																	%Score																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				4	3	2	2	3	3	5	3	1	1	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1	1	2	1	33	4	3	2	2	3	3	5	3	1	1	1	1

APPENDIX 5: TOP-RANKED SITES BY COUNTY

Appendix 5 details for each county the best quality sites in terms of their conservation value, as determined by conservation score. This covers all 26 counties surveyed. The top 10 sites from each county are shown (or more if 10th place is shared by more than one site). All 1,312 sites that received a conservation assessment were ranked; this overall ranking is shown for each site on the table. Note that sites are not numbered consecutively. Finally, any designations held by each site are also given.

County	Site	Woodland Name	%score	Overall ranking	Designation
Carlow	15	Borris	78.8%	=50	NHA, SAC
	310	Coolaphuca	69.7%	=125	NHA, SAC
	219	Ballypierce	57.6%	=383	
	10	Clogheristick Wood	54.5%	=461	NHA,
	26	Carrickduff Wood	54.5%	=461	NHA, SAC
	158	Altamont Gardens	54.5%	=461	NHA
	12	Oakpark	51.5%	=563	NHA
	14	Drummond Wood	51.5%	=563	SAC
	69	Toberbride	51.5%	=563	
Cavan	178	Orchard	51.5%	=563	
	345	Ballyconnell Demesne	84.8%	=16	NHA
	346	Deerpark (Cavan)	66.7%	=172	NHA
	446	Trinity Island Wood	66.7%	=172	NHA, SAC, SPA
	438	Black River Woods	63.6%	=236	
	351	Kingscourt Forest Park	60.6%	=312	
	652	Duncollog	60.6%	=312	
	1261	Derredis Upper	60.6%	=312	NHA, SAC, SPA
	454	Redhill Demense Wood	57.6%	=383	
	463	Derinish More Wood	57.6%	=383	NHA, SAC, SPA
	647	Garrysallagh	57.6%	=383	NHA, SPA
Clare	648	Mulrick	57.6%	=383	NHA
	660	Cullies	57.6%	=383	
	1500	Dromore Nature Reserve	84.8%	=16	NHA, SAC, SNR
	1515	Garrannon Woods	81.8%	=28	NHA
	1552	Cahermurphy	81.8%	=28	NHA, SNR
	1555	Glenomra Wood	81.8%	=28	NHA, SAC
Cork	1564	Cappaghbaun Park	81.8%	=28	
	1508	Cloggagh Wood	75.8%	=62	
	1554	Knocknageeha	75.8%	=62	
	1567	Maryfort	75.8%	=62	
	1507	Bealnalicka	72.7%	=90	
	1509	Ardcarney	72.7%	=90	NHA, SAC
	1510	Ross	72.7%	=90	NHA, SAC
	1574	Ballygarreen	72.7%	=90	
	1316	Glengarriff	87.9%	=5	NHA, SAC, SNR
	1317	The Gearagh	84.8%	=16	NHA, SAC, SPA, SNR
	1491	French Wood	84.8%	=16	NHA
Donegal	1314	Toon Valley	81.8%	=28	
	1329	Barrees	78.8%	=50	
	1459	Aghaneenagh	78.8%	=50	SAC
	1315	Coolyduff	75.8%	=62	NHA
	1356	Knockardsharriv	75.8%	=62	
	1361	Cloheena Wood	75.8%	=62	
	1323	Cleanderry Wood	72.7%	=90	NHA, SAC
	1347	Killaneer	72.7%	=90	NHA
	1390	Farnanes Wood	72.7%	=90	
	1473	Templemichael	72.7%	=90	
	1427	Ardnamona Wood	90.9%	=3	NHA, SAC, SNR
Donegal	1439	Ards Forest Park	90.9%	=3	NHA, SAC
	1422	Ballyarr Wood	87.9%	=5	NHA, SAC, SNR
	1428	Loughesask Demesne	84.8%	=16	NHA, SAC
	1429	Cottian Wood	84.8%	=16	NHA
	1430	Salt Pans	84.8%	=16	NHA, SAC
	1436	Keeloges	84.8%	=16	NHA, SAC
	1420	Rathmullan Wood	81.8%	=28	NHA, SAC, SNR
	1432	Foxhall	81.8%	=28	NHA
	1434	Ballynarry	81.8%	=28	SAC

County	Site	Woodland Name	%score	Overall ranking	Designation
Dublin	884	Glenasmole Valley	81.8%	=28	SAC
	1237	St. Catherine's Wood	66.7%	=172	NHA
	865	Lutrellstown	63.6%	=236	SAC
	918	Loughlinstown Wood	54.5%	=461	NHA
	919	Fitzsimons Wood	48.5%	=686	NHA
	430	Lugmore Glen	45.5%	=805	NHA
	1152	Abbotstown	45.5%	=805	
	337	Massy's Wood	42.4%	=916	
	916	Newbridge Demesne	42.4%	=916	
	925	Crooksling Glen	42.4%	=916	NHA
Galway	1594	Garryland Wood	93.9%	=1	NHA, SAC, SPA, SNR
	1597	Gortacarnaun	87.9%	=5	SAC
	1600	Shannawoneen wood	87.9%	=5	NHA, SAC
	1601	Derryclare	87.9%	=5	NHA, SAC, SNR
	1498	Drummin Wood	81.8%	=28	SAC
	1610	Pollnaknockaun Wood	81.8%	=28	NHA, SAC, SNR
	1624	Annaghwood	81.8%	=28	NHA, SAC, SPA
	1630	Kilbeg lower	78.8%	=50	NHA, SAC, SPA
	1616	Garryduff	75.8%	=62	NHA, SPA
	1629	Clydagh	75.8%	=62	NHA, SAC, SPA
	1636	Garbally Demesne	75.8%	=62	NHA
	1665	Clooncah	75.8%	=62	
	1674	Ardbear	75.8%	=62	
Kerry	1275	Kilgarvan Wood	87.9%	=5	NHA
	1711	Ballyseedy Wood	84.8%	=16	NHA, SAC
	1273	Uragh Wood	81.8%	=28	NHA, SAC, SNR
	1277	Lyrane Lower Wood	81.8%	=28	NHA, SAC
	1715	Drombane	81.8%	=28	NHA, SAC
	1735	Carrig East	81.8%	=28	
	1291	Reenadinna Wood	78.8%	=50	NHA, SAC, NP
	1279	Dromore Old	75.8%	=62	SAC
	1290	Derrycunihy Wood	75.8%	=62	NHA, SAC, NP
	1748	Glanageenty	75.8%	=62	
	1759	Argadh Wood	75.8%	=62	
	1916	Maulcallee	75.8%	=62	SAC
Kildare	948	Rahin Wood (Kildare)	69.7%	=125	
	927	Donadea Forest Park	63.6%	=236	SAC
	938	Carton Demense	63.6%	=236	SAC
	1007	Mitchels Wood	63.6%	=236	
	1008	Martinstown	60.6%	=312	
	1196	Loughnacush	54.5%	=461	
	968	Drehid Wood	51.5%	=563	
	982	Greatconnell	51.5%	=563	
	1003	Castletown	51.5%	=563	
	1010	Derrylea Large	51.5%	=563	
	1024	Moone Woodlands	51.5%	=563	
	1217	Knockcor Wood	51.5%	=563	SAC

County	Site	Woodland Name	%score	Overall ranking	Designation
Kilkenny	515	Kylecorragh	66.7%	=172	SAC
	49	Grenan Wood	63.6%	=236	SAC
	137	Knockadrina	63.6%	=236	
	156	Garryricken North	63.6%	=236	NHA, SNR
	200	Ballytobin/Ballaghtobin	63.6%	=236	
	20	Brownstown Wood	60.6%	=312	NHA, SAC
	96	Kyleadahir Wood	60.6%	=312	NHA, SNR
	128	Brown's Wood	60.6%	=312	
	17	Thomastown	57.6%	=383	NHA
	18	Ballykeefe Wood	57.6%	=383	NHA, SNR
	58	Cullentragh	57.6%	=383	
	136	Rossenarra	57.6%	=383	
	225	Newrath	57.6%	=383	
	302	Garryricken South	57.6%	=383	NHA
Laois	260	Ballyfin Demesne	69.7%	=125	
	254	Knockbawn	66.7%	=172	
	255	Morton's Grove	66.7%	=172	
	256	Coolnamony	66.7%	=172	
	265	Ballhuppahane	63.6%	=236	
	242	Grantstown Wood	60.6%	=312	NHA, SNR
	250	Clopook Valley	57.6%	=383	
	263	Vicarstown	54.5%	=461	
	280	Kilcruise	54.5%	=461	
	251	Timahoe Eskers	51.5%	=563	NHA, SNR
	257	Capard	51.5%	=563	
	262	Rathcoffey	51.5%	=563	
	269	Glenmalyre Demesne	51.5%	=563	
	276	Maidenhead	51.5%	=563	
	283	Dunmore Demesne	51.5%	=563	SAC
	296	Corbally	51.5%	=563	
Leitrim	388	Derrycarne Demesne South	75.8%	=62	SAC
	334	Garadice Lough Peninsula	66.7%	=172	
	427	Carrickarinn	66.7%	=172	
	333	Stonepark	63.6%	=236	
	468	Black Island Wood	63.6%	=236	
	469	Meenagh Wood	63.6%	=236	
	335	Faslowart	60.6%	=312	SAC
	367	Keelrin East	60.6%	=312	
	426	Derrycarne Shoreline	60.6%	=312	
	331	Ardagh	57.6%	=383	
	353	Greenaun North	57.6%	=383	SAC
Limerick	1986	Curraghchase Forest Park	93.9%	=1	NHA, SAC
	1286	Clare Glen	81.8%	=28	NHA, SAC
	1284	Gortnageragh River Valley	69.7%	=125	NHA, SAC
	1297	Mountrussell Wood	69.7%	=125	NHA
	1857	Newgarden North	69.7%	=125	SAC
	1281	Glenstal Wood	66.7%	=172	NHA, SAC
	1295	Glencurrane	66.7%	=172	NHA
	1296	Graigie Wood	66.7%	=172	NHA
	1995	Gortnaskahy	66.7%	=172	SAC
	1856	Cappanahanaagh	63.6%	=236	
	1996	Craggs	63.6%	=236	
	2001	Templeglentan West	63.6%	=236	SAC

County	Site	Woodland Name	%score	Overall ranking	Designation
Longford	544	Gubroe (Castle Forbes)	75.0%	=88	SAC, SPA
	727	Culnagore Wood	69.7%	=125	NHA, SAC
	542	Annagh (Castle Forbes)	66.7%	=172	SAC, SPA
	418	Carrickglass Demense Woods	66.7%	=172	NHA, SAC
	419	Carrickglass Demense Woods West	66.7%	=172	NHA, SAC
	771	Golaroe	66.7%	=172	NHA
	540	Clonguish (Castle Forbes)	62.5%	=310	SAC, SPA
	618	Enaghan	60.6%	=312	
	729	White Sand Wood	60.6%	=312	NHA, SAC
	808	Grillagh	60.6%	=312	
Louth	1150	Collon North	63.6%	=236	NHA
	610	Tipping Hill	60.6%	=312	NHA
	612	Rathscar Lake	57.6%	=383	
	631	King William's Glen	57.6%	=383	NHA, SAC
	679	Collon	57.6%	=383	NHA
	640	Red Bog	54.5%	=461	
	632	Beaulieu	51.5%	=563	SPA
	1260	Collon Northwest	48.5%	=686	SAC
	629	Puckstown	45.5%	=805	
	680	Toomes	45.5%	=805	
	1222	Lannat	45.5%	=805	
Mayo	1777	Brackloon Woods	84.8%	=16	NHA, SAC
	1763	Pontoon Woods	81.8%	=28	NHA, SAC
	1800	Prospect	81.8%	=28	NHA, SAC
	1769	Raheens	75.8%	=62	
	1778	Oldhead Wood	75.8%	=62	NHA, SAC, SNR
	1808	Knockbaun	75.8%	=62	
	1770	Kilbride	75.0%	=88	NHA, SAC, SPA
	1796	Derrymore	72.7%	=90	NHA, SAC
	1768	Barnarinia	71.9%	123	NHA, SAC
	1798	Lankill	69.7%	=125	
	1807	Coolaght	69.7%	=125	
Meath	699	Flemingstown East	72.7%	=90	NHA
	670	Clondalee More	66.7%	=172	
	726	Knightstown	63.6%	=236	
	687	Thomastown Bog	60.6%	=312	NHA
	763	Milltown Glen	60.6%	=312	
	688	Grove Island	57.6%	=383	NHA, SAC
	701	Greenan North	57.6%	=383	
	703	Glenmore Fox Covert	57.6%	=383	SAC
	715	Balrath	57.6%	=383	NHA
	724	Brittas (Meath)	57.6%	=383	
	748	Molerick	57.6%	=383	NHA
Monaghan	403	Fairfield Demense	69.7%	=125	NHA
	1177	Lough Fea Lake	69.7%	=125	
	858	Graffagh	63.6%	=236	
	411	Dromore West	60.6%	=312	NHA
	860	Reduff	60.6%	=312	
	407	Derryveen Wood	57.6%	=383	
	412	Hollywood Lake Wood	57.6%	=383	
	401	Lough Fea Demense	54.5%	=461	NHA
	406	Nut Wood	54.5%	=461	
	410	Derrynashallog	54.5%	=461	
	840	Hazel Wood	54.5%	=461	
	853	Annamarron	54.5%	=461	
	856	Clohoge	54.5%	=461	
	1063	The Glen	54.5%	=461	
	1176	The Downs Wood	54.5%	=461	
	1178	Derrylavan	54.5%	=461	

County	Site	Woodland Name	%score	Overall ranking	Designation
Offaly	574	Charleville South	87.5%	15	NHA, SAC
	575	Charleville North	70.8%	124	NHA, SAC
	577	Charleville Killeska	66.7%	=172	SAC
	578	Hand's Wood	66.7%	=172	SAC
	31	Cloghan Demesne Bog and Wood	63.6%	=26	NHA, SPA
	86	Clooneen (Offaly)	63.6%	=236	NHA
	176	Cushcallow	63.6%	=236	SAC, SPA
	321	Brownstown	63.6%	=236	
	33	Camcor Wood/Glinsk	60.6%	=312	NHA
	556	Balleek Beg	58.3%	=376	
	576	Charleville Brookfield	58.3%	=376	SAC
	582	Hara's Hill	58.3%	=376	
	591	Pallas Lough	58.3%	=376	NHA
	592	Killeigh Townland	58.3%	=376	NHA
	593	Graigie North	58.3%	=376	
Roscommon	467	St John's Wood	87.9%	=5	SAC, SPA
	1042	Barrymore North	72.7%	=90	NHA, SAC, SPA
	1043	Barry More Shore	69.7%	=125	NHA, SAC, SPA
	472	Hughestown Wood	63.6%	=236	NHA
	1050	Willsgrove	63.6%	=236	
	1059	Mount Talbot South	63.6%	=236	NHA, SPA
	1061	Cornaseer	63.6%	=236	NHA, SAC, SPA
	475	Drumcormick Wood	60.6%	=312	
	484	Derrymacstur	60.6%	=312	NHA
	476	Drummans Island	57.6%	=383	
	482	Kilcloghan	57.6%	=383	
	1233	Drumlagagh	57.6%	=383	
Sligo	1400	Cullentra Wood	78.8%	=50	NHA, SAC
	1409	Hazelwood Demesne	78.8%	=50	NHA, SAC
	1405	Kilbrattan Wood	72.7%	=90	NHA, SAC
	1412	Clogh Wood	72.7%	=90	NHA, SAC
	1403	Mountain Wood	69.7%	=125	NHA, SAC
	1404	Clogher (Sligo)	69.7%	=125	NHA, SAC, SPA
	525	Markree Castle (Markree)	66.7%	=172	SAC
	1408	Cleaveragh Demesne	66.7%	=172	NHA, SAC
	1410	Tanrego	63.6%	=236	NHA, SAC, SPA
	1496	Poulaphuca Wood	63.6%	=236	NHA, SAC
Tipperary	1858	Aughnaglanny Valley	84.8%	=16	NHA
	1861	Knockanavar Wood	81.8%	=28	NHA, SAC
	1953	Castletlough	78.8%	=50	NHA
	1876	Moyaliff	72.7%	=90	
	1924	Patrickswell	66.7%	=172	NHA
	1926	Ballyphilip	66.7%	=172	SNR
	1932	Marl Bog	66.7%	=172	NHA
	1968	Shanacloon (Fox Covert)	66.7%	=172	
	1859	Grove Wood	63.6%	=236	NHA
	1891	Turaheen	63.6%	=236	
	1893	Kilduff	63.6%	=236	NHA, SAC
	1897	Lehinch	63.6%	=236	NHA, SAC, SPA
	1954	Garrynatieel	63.6%	=236	SAC
	1963	Cornalack	63.6%	=236	NHA, SAC, SPA

County	Site	Woodland Name	%score	Overall ranking	Designation
Waterford	1626	Lismore Woods	87.9%	=5	NHA, SAC
	1670	Stradbally Woods	78.8%	=50	NHA
	1816	Ballyhamlet	78.8%	=50	
	1543	Glenmore Wood	75.8%	=62	NHA, SAC
	1819	The Grove	72.7%	=90	NHA, SAC, SPA
	1842	Cladagh	72.7%	=90	SAC
	1846	Ballynatray Demesne West	72.7%	=90	NHA, SAC
	1673	Glenribbeen Wood	69.7%	=125	
	1818	White Well Wood	69.7%	=125	NHA, SAC
	1827	Bohadoon South	66.7%	=172	
	1844	Rincrew Wood	66.7%	=172	NHA, SAC
	1853	Hazel Wood, Waterford	66.7%	=172	
Westmeath	1111	Lough Slevin's Wood	75.8%	=62	SAC
	1088	Whinning Wood	72.7%	=90	SAC, SPA
	1098	Gartlandstown Wood	72.7%	=90	NHA, SPA
	1106	Bracklin Wood	72.7%	=90	
	1110	Cavestown	72.7%	=90	
	1155	Aghyrassy	72.7%	=90	SAC
	1086	Meehan Wood	69.7%	=125	SAC, SPA
	1125	Barbavilla Demense	69.7%	=125	
	1166	Newtownlow Esker Woodland	69.7%	=125	SAC
	1234	Coosan Point Hazel Wood	69.7%	=125	SPA
Wexford	4	Killoughrum Forest	78.8%	=50	NHA
	154	Ballyboggan Lower	75.8%	=62	
	151	Bricketstown House	72.7%	=90	
	3	Courtown Dunes/Glen	69.7%	=125	NHA
	211	Newtown Lower	66.7%	=172	SAC
	1	Ballynabarny Wood	63.6%	=236	NHA
	5	Oaklands	57.6%	=383	NHA
	180	Glandoran Upper/Carthy's Wood	57.6%	=383	
	7	Camolin	54.5%	=461	
	102	Ballycrystal	54.5%	=461	
	145	Ballybrennan House	54.5%	=461	
	148	Ballyfad	54.5%	=461	
Wicklow	777	Glen of the Downs	87.9%	=5	NHA, SAC, SNR
	789	Knocksink	87.9%	=5	SAC, SNR
	746	Baltynanima	84.8%	=16	NHA, SAC
	781	The Devil's Glen	81.8%	=28	NHA
	783	Deputy's Pass	81.8%	=28	SAC, SNR
	776	Castlehoward	75.8%	=62	
	786	The Giants Cut & Lugduff	75.8%	=62	SAC, SPA, SNR, NP
	951	Kilcarra West	72.7%	=90	NHA
	338	Vale of Clara	72.7%	=90	SAC, SNR
	793	Altidore Demesne	72.7%	=90	

APPENDIX 6: THREAT SCORES

Appendix 6 shows the threat scores for the 1,217 sites surveyed during the native woodland survey. The 103 additional sites incorporated from previous surveys were not assessed but are included for completeness with a score of 'N/A'. Only two of the 1,217 sites surveyed in the main survey had items of data missing from this table; these are marked by an 'x' and the maximum number of available points was adjusted to compensate for the missing data. Note that sites are not numbered consecutively.

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	1	1	1	12	100.0	100.0					
1	Ballynabarny Wood	Wexford	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		63.6	
2	Clone Fox Covert	Wexford	0	1	0	0	0	0	0	1	0	1	0	1	0	8.3		45.5	
3	Courtown Dunes/Glen	Wexford	2	0	0	1	1	0	4	0	3	0	3	0	33.3		69.7		
4	Killoughrum Forest	Wexford	0	0	0	1	0	0	1	0	1	0	1	0	8.3		78.8		
5	Oaklands	Wexford	2	0	0	0	1	0	3	0	2	0	2	0	25.0		57.6		
7	Camolin	Wexford	1	0	1	1	0	0	3	0	2	0	2	0	25.0		54.5		
8	Baggot's Wood	Carlow	0	2	0	1	0	0	3	0	2	0	2	0	25.0		45.5		
9	Bahana	Carlow	0	1	0	0	0	0	1	0	1	0	1	0	8.3		45.5		
10	Clogheristick Wood	Carlow	2	0	1	0	0	0	3	0	2	0	2	0	25.0		54.5		
12	Oakpark	Carlow	1	0	0	0	0	0	1	0	1	0	1	0	8.3		51.5		
14	Drummond Wood	Carlow	1	1	1	0	1	0	4	0	3	0	3	0	33.3		51.5		
15	Borris	Carlow	2	0	1	3	1	0	7	0	5	0	5	0	58.3		78.8		
17	Thomastown	Kilkenny	0	0	2	0	1	0	3	0	2	0	2	0	25.0		57.6		
18	Ballykeefe Wood	Kilkenny	1	0	1	1	0	0	3	0	2	0	2	0	25.0		57.6		
19	Ballyhighland	Wexford	0	1	1	1	1	0	4	0	3	0	3	0	33.3		36.4		
20	Brownstown Wood	Kilkenny	0	0	0	0	0	0	0	0	0	0	0	0	0.0		60.6		
22	Fiddown	Kilkenny	1	1	0	0	0	0	2	0	1	0	1	0	16.7		42.4		
26	Carrickduff Wood	Carlow	2	1	0	0	1	0	4	0	3	0	3	0	33.3		54.5		
27	Dovegrove Callows	Offaly	1	2	0	0	0	1	4	0	3	0	3	0	33.3		54.5		
28	Clonfinlough Esker	Offaly	0	0	0	1	0	0	1	0	1	0	1	0	8.3		42.4		
30	Woodville	Offaly	1	2	0	3	0	0	6	0	4	0	4	0	50.0		48.5		
31	Cloghan Demesne Bog and Wood	Offaly	0	0	2	2	0	0	4	0	3	0	3	0	33.3		63.6		
33	Camcor Wood/Glinsk	Offaly	0	0	0	0	0	0	0	0	0	0	0	0	0.0		60.6		
34	Quakerstown	Offaly	2	0	1	0	0	0	3	0	2	0	2	0	25.0		48.5		
35	Clorhane Wood	Offaly	0	0	0	0	0	0	0	0	0	0	0	0	0.0		54.5		
36	Lough Coura	Offaly	0	0	0	0	0	0	0	0	0	0	0	0	0.0		48.5		
37	Currauff	Wexford	0	1	0	0	0	0	1	0	1	0	1	0	8.3		42.4		
38	Graiguebeg	Wexford	0	3	0	0	0	0	3	0	2	0	2	0	25.0		39.4		
48	Jerpoint Abbey	Kilkenny	0	1	0	1	0	0	2	0	1	0	1	0	16.7		42.4		
49	Grenan Wood	Kilkenny	0	1	2	0	0	0	3	0	2	0	2	0	25.0		63.6		
51	Kilfane House	Kilkenny	2	0	0	0	0	0	2	0	1	0	1	0	16.7		42.4		
53	Kilcullen	Kilkenny	0	1	0	1	0	0	2	0	1	0	1	0	16.7		42.4		
58	Cullentragh	Kilkenny	1	2	0	0	0	0	3	0	2	0	2	0	25.0		57.6		
61	Cullaun	Kilkenny	1	0	0	0	1	0	2	0	1	0	1	0	16.7		48.5		
65	Bohermore	Carlow	0	1	0	0	0	0	1	0	1	0	1	0	8.3		36.4		
69	Toberbride	Carlow	0	0	1	0	1	0	2	0	1	0	1	0	16.7		51.5		
73	Tinnahinch	Carlow	0	1	2	0	1	0	4	0	3	0	3	0	33.3		33.3		
74	Knockeen	Carlow	0	1	0	0	0	0	1	0	1	0	1	0	8.3		39.4		
75	Knockduff	Carlow	0	1	0	0	0	0	1	0	1	0	1	0	8.3		39.4		
76	Ballybeg Big	Carlow	0	2	0	0	0	0	2	0	1	0	1	0	16.7		33.3		
78	Ballintemple	Carlow	2	0	0	0	1	0	3	0	2	0	2	0	25.0		18.2		
79	Doon Demesne East	Offaly	2	0	0	1	0	0	3	0	2	0	2	0	25.0		30.3		
80	Doon Demesne West	Offaly	2	0	0	0	0	0	2	0	1	0	1	0	16.7		51.5		
81	Clonascra	Offaly	0	0	0	1	0	0	1	0	1	0	1	0	8.3		36.4		
82	Clongawny More	Offaly	0	0	0	0	0	0	0	0	0	0	0	0	0.0		45.5		
83	Taylor's Cross	Offaly	0	3	0	1	0	0	4	0	3	0	3	0	33.3		39.4		
84	Boolinarig	Offaly	1	0	0	0	0	0	1	0	1	0	1	0	8.3		45.5		
85	Ballyhealy (Offaly)	Offaly	0	0	0	1	0	0	1	0	1	0	1	0	8.3		45.5		
86	Clooneen (Offaly)	Offaly	2	0	1	0	0	0	3	0	2	0	2	0	25.0		63.6		
89	Ballincor Demesne Bogwood	Offaly	0	1	2	0	0	0	3	0	2	0	2	0	25.0		54.5		
91	Big Wood (West Offaly)	Offaly	0	0	x	0	0	0	0	1	0	0	0	1	0.0		46.2		
95	Drummin (Red Bog)	Carlow	1	1	0	0	0	0	2	0	1	0	1	0	16.7		33.3		
96	Kyleadahir Wood	Kilkenny	1	0	0	0	0	0	1	0	1	0	1	0	8.3		60.6		
100	Tomnafunshogue	Wexford	0	3	0	1	0	0	4	0	3	0	3	0	33.3		48.5		
102	Ballycrystal	Wexford	2	0	1	0	0	0	3	0	2	0	2	0	25.0		54.5		
103	Bolamore	Wexford	1	1	0	0	0	0	2	0	1	0	1	0	16.7		36.4		
106	Tombrick Lower	Wexford	0	1	0	0	0	0	1	0	1	0	1	0	8.3		42.4		
108	Troyswood	Kilkenny	0	0	0	0	0	0	0	0	0	0	0	0	0.0		51.5		
109	Jenkinson Park	Kilkenny	0	0	0	0	0	0	0	0	0	0	0	0	0.0		45.5		
110	Ballyrafton	Kilkenny	1	0	1	1	0	0	3	0	2	0	2	0	25.0		45.5		
112	Maddockstown/Nore Cottage	Kilkenny	1	2	0	1	1	0	5	0	4	0	4	0	41.7		54.5		
113	High Rath	Kilkenny	2	0	0	0	0	0	2	0	1	0	1	0	16.7		39.4		
114	Gowran	Kilkenny	1	0	0	0	0	0	1	0	1	0	1	0	8.3		54.5		
116	Fanningstown Wood	Kilkenny	0	1	0	0	0	0	1	0	1	0	1	0	8.3		48.5		
117	Mountain Grove	Kilkenny	1	0	1	0	1	0	3	0	2	0	2	0	25.0		39.4		
122	Creakan Lower	Wexford	0	1	0	0	0	0	1	0	1	0	1	0	8.3		39.4		
123	Stokestown Bridge (Dunganstown)	Wexford	0	0	0	0	0	0	0	0	0	0	0	0	0.0		42.4		
124	Ballyleigh	Wexford	0	2	0	0	0	0	2	0	1	0	1	0	16.7		48.5		

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0							
125	Ballynacoolagh	Wexford	0	1	1	0	0	0	0	2	0	16.7		45.5					
126	Curraun	Wexford	0	1	0	0	0	0	0	1	0	8.3		42.4					
127	Warrington	Kilkenny	0	1	0	0	0	1	0	2	0	16.7		51.5					
128	Brown's Wood	Kilkenny	0	0	1	0	0	0	0	1	0	8.3		60.6					
130	Monarche Commons 2	Kilkenny	2	0	1	0	0	0	0	3	0	25.0		36.4					
131	Greatwood	Kilkenny	2	3	0	0	0	1	0	6	0	50.0		42.4					
135	Coill na Fhaltaigh	Kilkenny	0	1	0	0	0	0	0	1	0	8.3		51.5					
136	Rossenarra	Kilkenny	0	1	1	0	0	0	0	2	0	16.7		57.6					
137	Knockadrina	Kilkenny	0	0	1	1	1	0	3	0	25.0		63.6						
138	Castlemorris Demesne	Kilkenny	0	1	0	0	0	0	1	0	8.3		42.4						
139	Twenty Acres	Wexford	2	1	0	0	1	0	4	0	33.3		30.3						
141	Johnstown Castle	Wexford	1	1	0	0	0	0	2	0	16.7		42.4						
145	Ballybrennan House	Wexford	1	1	1	0	0	0	3	0	25.0		54.5						
147	Ballycross	Wexford	1	1	0	0	1	0	3	0	25.0		39.4						
148	Ballyfad	Wexford	1	0	0	1	0	0	2	0	16.7		54.5						
151	Bricketstown House	Wexford	2	1	0	0	0	0	3	0	25.0		72.7						
153	Ballyvalogue	Wexford	0	1	0	1	0	0	2	0	16.7		33.3						
154	Ballyboggan Lower	Wexford	2	1	0	0	1	0	4	0	33.3		75.8						
155	Soldier's Hole	Wexford	2	1	0	1	0	0	4	0	33.3		39.4						
156	Garryricken North	Kilkenny	1	0	0	0	0	0	1	0	8.3		63.6						
157	Ballynoe	Carlow	0	0	x	0	0	0	0	1	0.0		34.6						
158	Altamont Gardens	Carlow	1	0	0	0	0	0	1	0	8.3		54.5						
160	Ballywilliam	Offaly	0	0	0	0	0	0	0	0	0.0		45.5						
162	Guernal	Offaly	0	1	0	1	0	0	2	0	16.7		39.4						
163	Tombrick Wood	Wexford	0	1	0	1	0	0	2	0	16.7		36.4						
166	Wilton North	Wexford	1	1	0	0	0	0	2	0	16.7		51.5						
167	Wilton South	Wexford	0	1	0	2	0	0	3	0	25.0		45.5						
168	Ballinvally Wood	Carlow	0	0	0	0	0	0	0	0	0.0		39.4						
169	Coonogue Wood	Carlow	0	2	0	0	0	0	2	0	16.7		36.4						
170	Coolpuck Wood	Wexford	0	1	0	0	1	0	2	0	16.7		42.4						
172	Ballingarry Wood	Wexford	2	1	1	1	0	0	5	0	41.7		42.4						
173	Golden Grove	Offaly	0	1	0	0	1	0	2	0	16.7		33.3						
174	Drumakeenan School	Offaly	2	1	1	0	1	0	5	0	41.7		42.4						
175	Townparks	Offaly	1	1	0	0	0	0	2	0	16.7		51.5						
176	Cushcallow	Offaly	0	0	0	1	0	0	1	0	8.3		63.6						
177	Corclogh	Offaly	0	3	0	0	0	0	3	0	25.0		39.4						
178	Orchard	Carlow	0	0	0	1	0	0	1	0	8.3		51.5						
179	Clonogan Wood	Carlow	1	0	0	0	0	0	1	0	8.3		45.5						
180	Glandoran Upper/Carthy's Wood	Wexford	0	0	0	1	0	0	1	0	8.3		57.6						
183	Clogrenan Wood	Carlow	1	1	0	0	1	0	3	0	25.0		30.3						
184	Lisnevagh	Carlow	1	2	1	3	0	0	7	0	58.3		27.3						
186	Drumgoole	Kilkenny	2	1	0	0	1	0	4	0	33.3		24.2						
187	Ballymore Demesne	Wexford	2	1	0	2	0	0	5	0	41.7		39.4						
189	Wells East	Wexford	2	1	1	0	0	0	4	0	33.3		39.4						
190	Wells West	Wexford	2	1	0	0	0	0	3	0	25.0		33.3						
191	Island House	Wexford	1	0	0	0	0	0	1	0	8.3		48.5						
192	Litterbeg	Wexford	1	1	0	0	0	0	2	0	16.7		42.4						
197	Miltown	Offaly	1	1	0	0	1	0	3	0	25.0		39.4						
198	Castletown House (Building Wood)	Kilkenny	2	1	0	1	0	0	4	0	33.3		33.3						
199	Kilmacow	Kilkenny	0	1	1	0	0	0	2	0	16.7		51.5						
200	Ballytobin/Ballaghtobin	Kilkenny	0	1	0	1	0	0	2	0	16.7		63.6						
201	Foulscoart	Kilkenny	2	0	0	0	0	0	2	0	16.7		42.4						
203	Coolroebeeg	Kilkenny	0	0	0	0	0	0	0	0	0.0		51.5						
204	Shankill	Kilkenny	0	0	0	1	0	0	1	0	8.3		54.5						
205	Raheendonore	Kilkenny	0	1	0	0	0	0	1	0	8.3		45.5						
206	Ballinrush	Carlow	0	1	0	0	0	0	1	0	8.3		36.4						
208	Crane Bridge	Wexford	1	0	0	0	1	0	2	0	16.7		48.5						
209	Mackmine Wood	Wexford	0	1	0	0	0	0	1	0	8.3		51.5						
210	Ballynahillen	Wexford	0	2	0	0	0	0	2	0	16.7		36.4						
211	Newtown Lower	Wexford	2	0	0	0	0	0	2	0	16.7		66.7						
213	Seskinnamadra	Carlow	0	0	0	1	0	0	1	0	8.3		45.5						
219	Ballypierce	Carlow	0	1	1	0	0	0	2	0	16.7		57.6						
221	Kilmacoliver	Kilkenny	0	1	0	0	0	0	1	0	8.3		48.5						
223	Johnswell	Kilkenny	0	1	0	0	0	0	1	0	8.3		45.5						
225	Newrath	Kilkenny	1	1	1	1	0	0	4	0	33.3		57.6						
226	Skehana	Kilkenny	0	0	0	0	0	0	0	0	0.0		42.4						
227	Lisdowney Wood	Kilkenny	0	1	1	1	1	0	4	0	33.3		45.5						
228	Crumlin/Tulla	Offaly	0	2	0	0	0	0	2	0	16.7		33.3						

Site No.	Woodland Name	County	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Missing values	% Threat Score	% Conservation Score
			Max. score		2	3	2	3	1	1	12	Score			
					2	3	2	3	1	1	12	Score		100.0	100.0
229	Castle Bernard Demense	Offaly			2	0	0	1	0	0	3	0		25.0	54.5
230	Ballymack	Kilkenny			0	0	0	1	0	0	1	0		8.3	42.4
234	Monassa	Kilkenny			0	1	2	0	0	0	3	0		25.0	51.5
236	Flagmount North	Kilkenny			0	0	0	0	0	0	0	0		0.0	39.4
237	Broughal	Offaly			0	0	1	0	0	0	1	0		8.3	45.5
238	Barnaboy	Offaly			0	1	0	0	0	0	1	0		8.3	33.3
240	Clonmacnoise	Offaly			0	2	0	0	0	0	2	0		16.7	36.4
241	Clonassy Wood	Kilkenny			0	1	0	0	0	0	1	0		8.3	39.4
242	Grantstown Wood	Laois			2	0	0	0	1	0	3	0		25.0	60.6
245	Dunamase Woods	Laois			0	0	0	0	0	0	0	0		0.0	45.5
246	Rock of Dunamase	Laois			0	0	0	0	0	0	0	0		0.0	45.5
249	Cloppook Wood	Laois			0	0	0	0	0	0	0	0		0.0	33.3
250	Cloppook Valley	Laois			0	0	0	0	1	0	1	0		8.3	57.6
251	Timahoe Eskers	Laois			1	0	0	1	0	0	2	0		16.7	51.5
252	Clonaslee Eskers	Laois			0	0	0	1	0	0	1	0		8.3	42.4
253	Kilteale Hill	Laois			0	0	0	1	0	0	1	0		8.3	45.5
254	Knockbawn	Laois			0	0	0	1	0	0	1	0		8.3	66.7
255	Morton's Grove	Laois			2	2	0	0	0	0	4	0		33.3	66.7
256	Coolnamony	Laois			1	0	0	0	0	0	1	0		8.3	66.7
257	Capard	Laois			0	0	1	0	0	0	1	0		8.3	51.5
258	Brittas	Laois			0	0	0	0	1	0	1	0		8.3	45.5
259	Garryhinch Demesne	Laois			0	1	1	0	0	0	2	0		16.7	48.5
260	Ballyfin Demesne	Laois			1	0	1	0	0	0	2	0		16.7	69.7
262	Rathcoffey	Laois			1	0	1	1	0	0	3	0		25.0	51.5
263	Vicarstown	Laois			0	0	0	1	0	0	1	0		8.3	54.5
265	Ballhuppahane	Laois			1	0	0	0	0	0	1	0		8.3	63.6
266	Cush Upper	Laois			0	0	0	1	0	0	1	0		8.3	48.5
268	Cappagh North	Laois			0	0	0	1	0	0	1	0		8.3	45.5
269	Glenmalyre Demesne	Laois			1	0	1	0	0	0	2	0		16.7	51.5
270	Ballybeg Mill	Wexford			0	0	0	0	0	1	1	0		8.3	48.5
273	Barkmill	Laois			1	1	0	0	1	0	3	0		25.0	36.4
274	Bughorn	Laois			0	0	0	0	0	0	0	0		0.0	42.4
275	Ballina	Laois			0	1	0	0	0	0	1	0		8.3	42.4
276	Maidenhead	Laois			0	0	0	0	0	0	0	0		0.0	51.5
277	Ashfield	Laois			0	0	0	0	0	0	0	0		0.0	42.4
278	Derrykearn	Laois			0	0	0	0	0	0	0	0		0.0	48.5
280	Kilcruise	Laois			0	1	0	0	0	0	1	0		8.3	54.5
281	Kilkoke	Laois			0	1	0	0	0	0	1	0		8.3	48.5
282	Castledurrow Demesne	Laois			0	1	1	0	0	0	2	0		16.7	45.5
283	Dunmore Demesne	Laois			1	1	0	0	1	0	3	0		25.0	51.5
284	Course Wood	Laois			0	1	1	1	0	0	3	0		25.0	48.5
286	Knocknatrina Wood	Laois			0	1	0	0	1	0	2	0		16.7	45.5
287	Knockbeg College	Laois			1	0	0	0	0	0	1	0		8.3	45.5
289	Crush Wood	Laois			0	0	0	0	0	0	0	0		0.0	30.3
290	Warren Hill	Laois			1	1	2	0	1	0	5	0		41.7	42.4
294	Scotchcrath House	Laois			0	1	0	0	1	0	2	0		16.7	27.3
296	Corbally	Laois			1	0	0	0	0	0	1	0		8.3	51.5
297	Killeany	Laois			0	1	0	0	0	0	1	0		8.3	42.4
300	Ballaghmore Upper	Laois			0	2	1	0	0	0	3	0		25.0	39.4
302	Garryricken South	Kilkenny			1	1	1	0	0	0	3	0		25.0	57.6
303	Harperstown	Wexford			0	0	0	0	0	0	0	0		0.0	48.5
304	Garrylough Lower	Wexford			0	1	1	0	0	0	2	0		16.7	45.5
305	Pollfur Bridge Wood	Wexford			0	1	2	0	0	0	3	0		25.0	39.4
307	Donore House Wood	Laois			0	2	0	1	0	0	3	0		25.0	42.4
308	Barleagh Wood	Kilkenny			0	1	2	0	0	0	3	0		25.0	42.4
309	Emmel West	Offaly			0	1	0	0	0	0	1	0		8.3	30.3
310	Coolaphuca	Carlow			1	0	0	1	0	0	2	0		16.7	69.7
311	Barnadown Wood	Wexford			0	0	0	0	0	0	0	0		0.0	21.2
313	Kilballyskea Bog	Offaly			0	1	0	0	0	0	1	0		8.3	30.3
316	Ballynattin	Carlow			0	1	0	0	0	0	1	0		8.3	48.5
320	Big Wood (Wexford)	Wexford			0	1	0	1	0	0	2	0		16.7	30.3
321	Brownstown	Offaly			0	1	1	1	0	0	3	0		25.0	63.6
322	North Brow	Laois			0	2	1	0	0	0	3	0		25.0	45.5
324	Cloghscregg	Kilkenny			1	1	0	0	0	0	2	0		16.7	36.4
326	Brownstown East	Offaly			1	1	0	0	0	0	2	0		16.7	30.3
327	Carrhill Wood	Wexford			1	1	2	0	1	0	5	0		41.7	24.2
328	Lisheen	Offaly			0	0	1	0	0	0	1	0		8.3	45.5
329	Clondallow	Offaly			0	0	0	0	0	0	0	0		0.0	42.4

Site No.	Woodland Name	County	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Missing values	% Threat Score	% Conservation Score
			Max. score		2	3	2	3	1	1	12	Score			
					2	3	2	3	1	1	12	Score		100.0	100.0
330	Rinn Lough Woods	Leitrim			2	1	0	0	0	0	3	0		25.0	54.5
331	Ardagh	Leitrim			0	0	0	0	0	0	0	0		0.0	57.6
332	Buckode	Leitrim			0	0	0	0	0	0	0	0		0.0	54.5
333	Stonepark	Leitrim			0	1	0	0	0	0	1	0		8.3	63.6
334	Garadice Lough Peninsula	Leitrim			0	1	0	0	0	0	1	0		8.3	66.7
335	Faslowart	Leitrim			0	0	0	0	0	0	0	0		0.0	60.6
336	Ballard Hill	Wicklow			0	0	1	1	0	0	2	0		16.7	60.6
337	Massy's Wood	Dublin			1	0	0	0	1	0	2	0		16.7	42.4
338	Vale of Clara	Wicklow			1	0	1	0	0	0	2	0		16.7	72.7
339	O' Donnell's Rock Wood	Leitrim			0	0	0	0	0	0	0	0		0.0	54.5
340	Killygar House	Leitrim			2	1	1	0	0	0	4	0		33.3	54.5
341	Ballard Bridge	Wicklow			1	1	0	0	0	0	2	0		16.7	48.5
344	Cappog	Cavan			0	1	0	1	0	0	2	0		16.7	48.5
345	Ballyconnell Demesne	Cavan			0	0	0	0	0	0	0	0		0.0	84.8
346	Deerpark (Cavan)	Cavan			2	1	1	2	1	0	7	0		58.3	66.7
347	Annaghduff	Cavan			0	1	0	0	0	0	1	0		8.3	45.5
348	Lismore Demesne	Cavan			0	1	0	0	0	0	1	0		8.3	33.3
349	Bellamont Forest	Cavan			0	1	0	0	0	0	1	0		8.3	54.5
350	Mullaghahy	Cavan			0	0	1	0	0	0	1	0		8.3	42.4
351	Kingscourt Forest Park	Cavan			2	1	1	1	0	0	5	0		41.7	60.6
353	Greenaun North	Leitrim			0	0	0	0	0	0	0	0		0.0	57.6
355	Treankillew Wood	Leitrim			0	0	0	0	0	0	0	0		0.0	48.5
356	Mount Campbell Woods South	Leitrim			1	1	0	0	0	0	2	0		16.7	45.5
360	Woodford	Leitrim			0	0	0	0	0	0	0	0		0.0	33.3
361	Carrickataeane	Leitrim			0	0	0	0	0	0	0	0		0.0	54.5
362	Cloonaquin Wood	Leitrim			0	0	0	0	0	0	0	0		0.0	45.5
364	Keelrin	Leitrim			0	1	1	0	0	0	2	0		16.7	51.5
365	Mullaghboy South	Leitrim			0	0	0	0	0	0	0	0		0.0	54.5
366	Mullaghboy	Leitrim			0	0	0	0	0	0	0	0		0.0	51.5
367	Keelrin East	Leitrim			0	1	0	0	0	0	1	0		8.3	60.6
371	Conaghill	Leitrim			1	1	1	0	0	0	3	0		25.0	33.3
373	Corleck/Derrydamph	Cavan			0	1	0	0	0	0	1	0		8.3	48.5
374	Srbraggan	Roscommon			0	0	0	0	0	0	0	0		0.0	48.5
379	Roosky Hill	Leitrim			0	0	0	0	0	0	0	0		0.0	54.5
381	Killavoggy Wood	Leitrim			0	2	0	0	0	0	2	0		16.7	33.3
382	Lavagh Wood	Leitrim			1	2	1	0	0	0	4	0		33.3	54.5
386	Glassalt Wood	Leitrim			0	0	0	0	0	0	0	0		0.0	36.4
387	Camalt Wood	Leitrim			0	0	0	0	0	0	0	0		0.0	45.5
388	Derrycarne Demesne South	Leitrim			1	0	0	1	0	0	2	0		16.7	75.8
389	Lough MacHugh Wood	Leitrim			0	1	0	0	0	0	1	0		8.3	27.3
390	Aghadrumcarn Wood	Leitrim			0	1	0	0	0	0	1	0		8.3	36.4
392	Clooncahir Wood	Leitrim			0	0	0	0	1	0	1	0		8.3	51.5
394	Corraleskin Wood	Leitrim			0	3	0	0	0	0	3	0		25.0	42.4
396	Summerhouse Wood	Leitrim			2	0	0	0	0	0	2	0		16.7	51.5
397	Cloone Lough Woods	Leitrim			0	1	0	0	0	0	1	0		8.3	51.5
399	Stracummer Woods	Leitrim			0	0	0	0	0	1	1	0		8.3	54.5
400	Derrycarne North	Leitrim			2	1	1	0	0	0	4	0		33.3	39.4
401	Lough Fea Demense	Monaghan			2	0	0	1	1	0	4	0		33.3	54.5
402	Black Lough/Lough Bawn Woods	Monaghan			1	1	0	0	0	0	2	0		16.7	45.5
403	Fairfield Demense	Monaghan			2	0	2	1	0	0	5	0		41.7	69.7
404	Old Wood	Monaghan			2	2	0	0	0	0	4	0		33.3	51.5
406	Nut Wood	Monaghan			1	0	2	0	0	0	3	0		25.0	54.5
407	Derryveen Wood	Monaghan			0	1	0	0	0	0	1	0		8.3	57.6
408	Drumever Woods	Monaghan			1	0	0	1	1	0	3	0		25.0	42.4
409	Drummully	Monaghan			0	1	0	0	0	0	1	0		8.3	48.5
410	Derrynashallog	Monaghan			1	1	0	0	0	0	2	0		16.7	54.5
411	Dromore West	Monaghan			1	1	0	1	0	0	3	0		25.0	60.6
412	Hollywood Lake Wood	Monaghan			0	1	0	1	0	0	2	0		16.7	57.6
414	Derrygorry Wood	Monaghan			0	1	0	0	0	0	1	0		8.3	51.5
416	Castleshane Demense Woods	Monaghan			2	1	0	0	0	0	3	0		25.0	51.5
417	Tully Wood	Longford			1	1	1	0	0	0	3	0		25.0	42.4
418	Carrickglass Demense Woods	Longford			2	0	0	0	0	0	2	0		16.7	66.7
419	Carrickglass Demense Woods West	Longford			2	0	0	0	1	0	3	0		25.0	66.7
421	Derryglogher Wood	Longford			0	1	0	1	0	0	2	0		16.7	57.6
422	Kiltyreher Wood	Longford			0	0	0	1	0	0	1	0		8.3	51.5
423	Inisfale Wood	Roscommon			1	2	0	0	0	0	3	0		25.0	45.5
425	Cormongan	Leitrim			0	1	0	0	0	0	1	0		8.3	33.3
426	Derrycarne Shoreline	Leitrim			1	0	0	0	0	0	1	0		8.3	60.6

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy	Standing dead/damaged trees	Score	Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	1						
427	Carrickarinn	Leitrim		1	1	0	1	0	0	0	3	0	25.0		66.7
428	Esker North	Leitrim		0	0	0	0	0	0	0	0	0	0.0		42.4
430	Lugmore Glen	Dublin		0	0	0	0	0	0	0	0	0	0.0		45.5
432	Largydonnell Wood	Leitrim		1	0	0	0	0	0	0	1	0	8.3		48.5
438	Black River Woods	Cavan		0	0	0	0	0	0	0	0	0	0.0		63.6
439	Garbrattan Wood	Cavan		0	1	0	0	0	0	0	1	0	8.3		54.5
443	Knocktemple	Cavan		0	1	0	1	0	0	0	2	0	16.7		42.4
446	Trinity Island Wood	Cavan		0	1	0	1	0	0	0	2	0	16.7		66.7
448	Kilnaglare Lower Wood	Cavan		0	0	0	0	0	0	0	0	0	0.0		54.5
453	Drumgoa Wood	Cavan		0	0	0	0	0	0	0	0	0	0.0		48.5
454	Redhill Demense Wood	Cavan		2	1	0	0	0	0	0	3	0	25.0		57.6
455	Lavey	Cavan		0	0	1	1	0	0	0	2	0	16.7		48.5
456	Crocknahattin	Cavan		1	0	0	0	0	0	0	1	0	8.3		27.3
457	Drumbannan	Cavan		2	0	0	0	0	0	0	2	0	16.7		27.3
458	Lear	Cavan		0	0	1	0	0	0	0	1	0	8.3		24.2
459	Drummora Great Wood	Cavan		0	1	0	0	0	0	0	1	0	8.3		39.4
460	Gortnanoul Wood	Cavan		0	0	0	0	0	1	0	1	0	8.3		21.2
461	Makeif Wood	Cavan		0	1	0	0	0	0	0	1	0	8.3		42.4
463	Derinish More Wood	Cavan		0	1	0	0	0	1	0	2	0	16.7		57.6
465	Annagh Wood West	Cavan		0	1	0	0	0	0	0	1	0	8.3		45.5
466	Stonepark Wood	Cavan		0	1	1	1	1	0	0	4	0	33.3		39.4
467	St John's Wood	Roscommon		0	1	0	0	0	0	0	1	0	8.3		87.9
468	Black Island Wood	Leitrim		0	0	1	0	0	0	0	1	0	8.3		63.6
469	Meenagh Wood	Leitrim		2	2	0	1	0	0	0	5	0	41.7		63.6
470	Mantua House	Roscommon		2	0	2	0	0	0	0	4	0	33.3		51.5
471	Warren Point	Roscommon		0	0	0	0	0	0	0	0	0	0.0		51.5
472	Hughestown Wood	Roscommon		0	1	0	0	0	0	0	1	0	8.3		63.6
474	Danesfort	Roscommon		0	1	0	0	0	0	0	1	0	8.3		54.5
475	Drumcormick Wood	Roscommon		0	0	0	0	0	0	0	0	0	0.0		60.6
476	Drummans Island	Roscommon		2	1	0	0	0	0	1	4	0	33.3		57.6
477	The Quarters	Roscommon		1	0	0	0	0	0	0	1	0	8.3		39.4
478	Cloontykilla Wood	Roscommon		2	0	0	0	0	0	0	2	0	16.7		54.5
479	Knockvicker	Roscommon		1	0	0	0	0	0	0	1	0	8.3		54.5
480	Dooneen	Roscommon		0	1	0	1	0	0	0	2	0	16.7		51.5
481	Caslans Wood	Roscommon		0	0	0	0	1	0	0	1	0	8.3		36.4
482	Kilcloghan	Roscommon		0	1	0	0	0	0	0	1	0	8.3		57.6
483	Cloonsillagh	Roscommon		0	0	0	0	0	0	0	0	0	0.0		42.4
484	Derrymacstur	Roscommon		0	0	0	0	0	0	0	0	0	0.0		60.6
485	Knockranny	Roscommon		0	1	0	0	0	0	0	1	0	8.3		54.5
486	Doon Wood	Roscommon		1	2	0	0	0	0	0	3	0	25.0		51.5
488	Owengallees	Cavan		0	2	0	0	0	0	0	2	0	16.7		48.5
490	Gortnacargy	Cavan		0	1	0	0	0	0	0	1	0	8.3		48.5
493	Clontycarnaghan	Cavan		0	0	0	0	1	0	0	1	0	8.3		48.5
495	Moherreagh	Cavan		0	0	0	1	0	0	0	1	0	8.3		51.5
496	Tonyhamigan	Monaghan		0	0	0	0	0	0	0	0	0	0.0		24.2
497	Newtown Wood (Cavan)	Cavan		0	1	1	1	0	0	0	3	0	25.0		36.4
498	Erne Head	Longford		2	1	0	0	1	0	0	4	0	33.3		51.5
499	Glenfarne Wood	Leitrim		2	0	0	0	0	0	0	2	0	16.7		45.5
500	Tullyguide Lough	Cavan		0	1	0	0	0	0	0	1	0	8.3		45.5
501	Doogarymore	Roscommon		0	0	0	1	0	0	0	1	0	8.3		42.4
502	Killycarney	Cavan		0	3	0	0	0	0	0	3	0	25.0		36.4
503	Doogarymore Bog	Roscommon		0	1	0	1	0	0	0	2	0	16.7		33.3
504	Derrycassin	Longford		0	1	0	0	0	0	0	1	0	8.3		54.5
505	Cavan	Leitrim		0	0	0	0	0	0	0	0	0	0.0		42.4
506	Drumdowney	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		54.2
507	Forestaltown	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		45.8
508	Dunganstown	Wexford		x	x	x	x	x	x	x	x	6	N/A		54.2
509	Kearney's Bay	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		29.2
510	Stokestown	Wexford		x	x	x	x	x	x	x	x	6	N/A		33.3
511	Fishertown	Wexford		x	x	x	x	x	x	x	x	6	N/A		37.5
512	Poulmaloe	Wexford		x	x	x	x	x	x	x	x	6	N/A		33.3
513	Buttermilk Point	Wexford		x	x	x	x	x	x	x	x	6	N/A		29.2
514	Mountgarrett	Wexford		x	x	x	x	x	x	x	x	6	N/A		50.0
515	Kylecorragh	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		66.7
516	Island on the Nore	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		N/A
517	Opposite Murphy's of the River	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		N/A
518	Murphy's of the River	Kilkenny		x	x	x	x	x	x	x	x	6	N/A		41.7
519	Coolnamuck	Kilkennv		x	x	x	x	x	x	x	x	6	N/A		29.2

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy	Standing dead/damaged trees	Score	Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	1						
520	Coolnamuck 2	Kilkenny		x	x	x	x	x	x	x	x	6	N/A	N/A	
521	Dysart/Newgrove	Kilkenny		x	x	x	x	x	x	x	x	6	N/A	45.8	
522	Woodview	Sligo		x	x	x	x	x	x	x	x	6	N/A	25.0	
523	Woodview Gate (Markree)	Sligo		x	x	x	x	x	x	x	x	6	N/A	45.8	
524	Gobbadagh (Markree)	Sligo		x	x	x	x	x	x	x	x	6	N/A	54.2	
525	Markree Castle (Markree)	Sligo		x	x	x	x	x	x	x	x	6	N/A	66.7	
526	Toberscanavan I, (Markree)	Sligo		x	x	x	x	x	x	x	x	6	N/A	50.0	
528	Toberscanavan III (Markree)	Sligo		x	x	x	x	x	x	x	x	6	N/A	37.5	
529	Coopershill	Sligo		x	x	x	x	x	x	x	x	6	N/A	33.3	
530	Bridge (Coopershill)	Sligo		x	x	x	x	x	x	x	x	6	N/A	25.0	
531	Ardneaskan (Coopershill)	Sligo		x	x	x	x	x	x	x	x	6	N/A	37.5	
532	Isolated Woodland (Coopershill)	Sligo		x	x	x	x	x	x	x	x	6	N/A	25.0	
533	Coolbock Bridge	Sligo		x	x	x	x	x	x	x	x	6	N/A	33.3	
534	Fidwog	Sligo		x	x	x	x	x	x	x	x	6	N/A	62.5	
535	Knocknacross	Sligo		x	x	x	x	x	x	x	x	6	N/A	50.0	
536	Ardkeeran	Sligo		x	x	x	x	x	x	x	x	6	N/A	41.7	
537	Closkeybridge	Sligo		x	x	x	x	x	x	x	x	6	N/A	N/A	
538	Doonsheheen	Sligo		x	x	x	x	x	x	x	x	6	N/A	29.2	
539	Annagh (Sligo)	Sligo		x	x	x	x	x	x	x	x	6	N/A	33.3	
540	Clonguish (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	62.5	
541	Ballykenney Wood, (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	41.7	
542	Annagh (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	66.7	
543	Lissagernall (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	50.0	
544	Gubroe (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	75.0	
546	Corlehan (Castle Forbes)	Longford		x	x	x	x	x	x	x	x	6	N/A	58.3	
547	Cornollen	Longford		x	x	x	x	x	x	x	x	6	N/A	45.8	
548	Big Wood (Laois)	Laois		x	x	x	x	x	x	x	x	6	N/A	N/A	
549	Kylebeg	Laois		x	x	x	x	x	x	x	x	6	N/A	N/A	
550	Coolcor North	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
551	Srah	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
552	Woodfield House	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
553	Woodfield Bog South	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
554	Toberdaly	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
555	Tara	Offaly		x	x	x	x	x	x	x	x	6	N/A	37.5	
556	Balleek Beg	Offaly		x	x	x	x	x	x	x	x	6	N/A	58.3	
557	Ballynamona	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
558	Clonearl Demesne	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
559	Killesh	Offaly		x	x	x	x	x	x	x	x	6	N/A	45.8	
560	Coole East	Offaly		x	x	x	x	x	x	x	x	6	N/A	37.5	
561	Clonlack	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
562	Doory Northwest	Offaly		x	x	x	x	x	x	x	x	6	N/A	37.5	
563	Clara Bog (Margin)	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
564	Bracklin Big	Offaly		x	x	x	x	x	x	x	x	6	N/A	54.2	
565	Fairfield	Offaly		x	x	x	x	x	x	x	x	6	N/A	29.2	
566	Derrygrogan Little	Offaly		x	x	x	x	x	x	x	x	6	N/A	37.5	
567	Rathdrum	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
568	Cavemount	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
569	Derryesker/Boley Beg Callows	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
570	Ballyduff Wood	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
571	Moleen	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
572	Tipperary Peat Bog	Offaly		x	x	x	x	x	x	x	x	6	N/A	33.3	
573	Ballycommon Grand Canal	Offaly		x	x	x	x	x	x	x	x	6	N/A	45.8	
574	Charleville South	Offaly		x	x	x	x	x	x	x	x	6	N/A	87.5	
575	Charleville North	Offaly		x	x	x	x	x	x	x	x	6	N/A	70.8	
576	Charleville Brookfield	Offaly		x	x	x	x	x	x	x	x	6	N/A	58.3	
577	Charleville Killeska	Offaly		x	x	x	x	x	x	x	x	6	N/A	66.7	
578	Hand's Wood	Offaly		x	x	x	x	x	x	x	x	6	N/A	66.7	
579	Big Wood (East Offaly)	Offaly		x	x	x	x	x	x	x	x	6	N/A	54.2	
580	Annaghharvey Central	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
581	Meelaghans	Offaly		x	x	x	x	x	x	x	x	6	N/A	50.0	
582	Hara's Hill	Offaly		x	x	x	x	x	x	x	x	6	N/A	58.3	
583	Derrygolan North	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
584	Cloncon	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
585	Ballaun Stone	Offaly		x	x	x	x	x	x	x	x	6	N/A	37.5	
586	Shanvally	Offaly		x	x	x	x	x	x	x	x	6	N/A	45.8	
587	Ross/Shanvally	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
588	Derrygolan East	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	
589	Coolagary	Offaly		x	x	x	x	x	x	x	x	6	N/A	41.7	

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0								
590	Garbally	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				25.0	
591	Pallas Lough	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				58.3	
592	Killeigh Townland	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				58.3	
593	Graigie North	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				58.3	
594	Graigie South	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				50.0	
595	Derryad South	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				41.7	
596	Derryad Northeast	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				41.7	
597	Lugamaria South	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				37.5	
598	Annaghmore West	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				29.2	
599	Mount Bolus South	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				41.7	
600	Annaghbrack Glebe	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				33.3	
601	Annaghmore House	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				29.2	
602	Cush Upper NW	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				33.3	
603	Annaghmore / Lough Fen East	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				37.5	
604	Woodenbridge	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				37.5	
605	All Saint's Bog	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				37.5	
606	Clara Bog (Central)	Offaly		x	x	x	x	x	x	x	x	x	6		N/A				33.3	
607	Cloonshanville	Roscommon		x	x	x	x	x	x	x	x	x	6		N/A				37.5	
608	Park Hill	Laois		x	x	x	x	x	x	x	x	x	6		N/A				N/A	
610	Tipping Hill	Louth	2	0	1	1	1	0	5	0	41.7	60.6								
612	Rathscar Lake	Louth	2	1	0	0	1	0	4	0	33.3	57.6								
613	Cornamucklagh (Louth)	Louth	2	2	1	0	1	0	6	0	50.0	30.3								
614	Corratober	Cavan	0	0	0	0	0	0	0	0	0.0	54.5								
617	Garthylough	Cavan	0	1	0	0	0	0	1	0	8.3	39.4								
618	Enaghan	Longford	0	1	0	1	0	0	2	0	16.7	60.6								
619	Lisraherty	Longford	1	1	0	0	0	0	2	0	16.7	48.5								
621	Skeagh	Cavan	2	1	0	0	0	0	3	0	25.0	54.5								
622	Anaverna	Louth	0	1	0	0	1	0	2	0	16.7	27.3								
625	Cruicetown Wood	Meath	2	0	0	0	0	0	2	0	16.7	48.5								
629	Puckstown	Louth	0	0	1	1	1	0	3	0	25.0	45.5								
631	King William's Glen	Louth	0	0	0	0	1	0	1	0	8.3	57.6								
632	Beaulieu	Louth	2	1	0	0	1	0	4	0	33.3	51.5								
639	Ravensdale Park	Louth	0	2	1	0	1	0	4	0	33.3	30.3								
640	Red Bog	Louth	0	0	0	0	0	0	0	0	0.0	54.5								
643	Woodpole Fox Covert	Meath	0	0	0	0	0	0	0	0	0.0	15.2								
644	Fortland	Cavan	2	1	1	0	0	0	4	0	33.3	45.5								
645	Crover	Cavan	1	2	0	0	0	0	3	0	25.0	48.5								
647	Garrysallagh	Cavan	0	0	0	2	0	0	2	0	16.7	57.6								
648	Mulrick	Cavan	0	1	0	0	1	0	2	0	16.7	57.6								
649	Cornamucklagh (Cavan)	Cavan	0	1	0	0	0	0	1	0	8.3	48.5								
650	Carricknaveddan	Cavan	2	1	0	0	0	0	3	0	25.0	33.3								
652	Duncollog	Cavan	0	0	0	0	0	0	0	0	0.0	60.6								
654	Shinan	Cavan	0	1	0	0	0	0	1	0	8.3	51.5								
655	Darkley	Cavan	0	0	1	0	1	0	2	0	16.7	42.4								
656	Lisdoagh	Cavan	0	1	0	0	0	0	1	0	8.3	39.4								
657	Drumlumman	Cavan	0	1	0	1	0	0	2	0	16.7	39.4								
658	Knockbride	Cavan	2	1	0	0	0	0	3	0	25.0	39.4								
660	Cullies	Cavan	1	1	0	0	0	0	2	0	16.7	57.6								
661	Derrynure	Cavan	1	1	0	1	0	0	3	0	25.0	48.5								
664	Townley Hall	Louth	0	0	1	0	1	0	2	0	16.7	42.4								
668	Louth Hall	Louth	2	0	2	2	0	0	6	0	50.0	42.4								
670	Clondalee More	Meath	0	2	0	1	0	0	3	0	25.0	66.7								
671	Crossantown	Meath	0	0	0	0	0	0	0	0	0.0	45.5								
672	Castletowncooly	Louth	0	0	0	0	0	0	0	0	0.0	39.4								
675	Coragh	Cavan	0	1	0	0	0	0	1	0	8.3	51.5								
676	Cornagee	Cavan	0	2	0	0	0	0	2	0	16.7	33.3								
678	Carracloghan	Louth	0	1	1	0	0	0	2	0	16.7	36.4								
679	Collon	Louth	2	2	0	0	0	0	4	0	33.3	57.6								
680	Toomes	Louth	0	0	0	0	0	0	0	0	0.0	45.5								
681	Muff (Louth)	Louth	0	1	0	0	0	0	1	0	8.3	42.4								
683	Phillipstown	Louth	0	0	0	1	1	0	2	0	16.7	33.3								
685	Annagh (Meath)	Meath	0	0	1	0	1	0	2	0	16.7	42.4								
686	Rock Wood	Meath	2	0	0	0	0	0	2	0	16.7	30.3								
687	Thomastown Bog	Meath	0	1	0	0	0	0	1	0	8.3	60.6								
688	Grove Island	Meath	1	1	1	0	1	0	4	0	33.3	57.6								
691	Billis	Cavan	0	1	1	0	0	0	2	0	16.7	45.5								
693	Beagh Blebe	Cavan	0	1	0	0	0	0	1	0	8.3	36.4								
694	Carricknaveagh	Cavan	0	2	0	0	0	0	2	0	16.7	48.5								

Site No.	Woodland Name	County	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
			2	3	2	3	2	3	1	1	1	1	12	12			100.0	100.0
695	Annagharnet	Cavan	0	1	0	0	0	0	0	0	0	0	1	0	8.3		42.4	
696	Kill	Cavan	0	1	0	0	0	0	0	0	0	0	1	0	8.3		39.4	
698	Carrigan	Cavan	0	1	0	1	0	0	0	0	0	0	2	0	16.7		39.4	
699	Flemingstown East	Meath	2	0	1	1	1	1	0	0	0	0	5	0	41.7		72.7	
701	Greenan North	Meath	2	0	0	0	0	0	0	0	1	3	0	0	25.0		57.6	
702	Rahinstown	Meath	2	1	0	0	0	0	0	0	0	3	0	0	25.0		45.5	
703	Glenmore Fox Covert	Meath	2	0	1	0	1	0	1	0	0	4	0	0	33.3		57.6	
704	Bog Woods	Meath	1	0	0	0	0	0	0	0	0	1	0	0	8.3		39.4	
705	Burtonstown	Meath	1	1	0	0	0	0	0	0	0	2	0	0	16.7		42.4	
707	Ardsallagh	Meath	1	0	1	0	0	0	0	0	0	2	0	0	16.7		48.5	
711	Derrysheridan	Meath	0	0	0	0	0	0	0	0	0	0	0	0	0.0		48.5	
713	Drive Wood	Meath	2	0	2	1	0	0	0	0	0	5	0	0	41.7		36.4	
715	Balrath	Meath	2	1	2	0	1	0	1	0	0	6	0	0	50.0		57.6	
718	Birdhill	Meath	2	0	0	0	0	0	0	0	0	2	0	0	16.7		51.5	
724	Brittas (Meath)	Meath	2	0	1	0	0	0	0	0	0	3	0	0	25.0		57.6	
726	Knightstown	Meath	0	0	2	0	0	0	0	0	0	2	0	0	16.7		63.6	
727	Culnagore Wood	Longford	0	0	0	0	0	0	0	0	0	0	0	0	0.0		69.7	
728	Coolamber	Longford	2	1	2	0	0	0	0	0	0	5	0	0	41.7		54.5	
729	White Sand Wood	Longford	1	0	1	0	0	0	0	0	0	2	0	0	16.7		60.6	
730	Clonbroney	Longford	0	1	0	0	0	0	0	0	0	1	0	0	8.3		45.5	
731	Windmill Wood	Longford	2	0	0	0	0	0	0	0	0	2	0	0	16.7		54.5	
732	Abbeyderg	Longford	0	0	0	0	0	0	0	0	0	0	0	0	0.0		57.6	
733	Corrabola	Longford	0	0	0	1	0	0	0	0	0	1	0	0	8.3		57.6	
734	Lislea	Longford	1	0	0	0	0	0	0	0	0	1	0	0	8.3		45.5	
735	Larkfield	Longford	2	1	0	0	0	0	0	0	0	3	0	0	25.0		54.5	
736	Cleraun	Longford	0	2	1	0	0	0	0	0	0	3	0	0	25.0		51.5	
737	Newcastle West	Longford	0	2	1	0	1	0	1	0	0	4	0	0	33.3		36.4	
738	Greenan South	Meath	1	0	0	0	0	0	0	1	2	0	0	0	16.7		51.5	
742	Isaacstown North	Meath	0	0	1	0	0	0	0	0	0	1	0	0	8.3		39.4	
743	Isaacstown South	Meath	0	1	2	2	0	0	0	0	0	5	0	0	41.7		39.4	
745	Jamestown	Meath	0	0	1	1	0	0	0	0	0	2	0	0	16.7		48.5	
746	Ballynanim	Wicklow	1	2	0	0	0	0	0	0	0	3	0	0	25.0		84.8	
747	Breakey	Meath	0	1	0	0	0	0	0	0	0	1	0	0	8.3		54.5	
748	Molerick	Meath	0	0	0	0	0	0	0	0	0	0	0	0	0.0		57.6	
749	Tomnafinnoge	Wicklow	2	0	0	0	0	0	0	0	0	2	0	0	16.7		69.7	
750	Newcastle East	Longford	1	0	0	0	1	0	0	0	0	2	0	0	16.7		39.4	
751	Newcastle South	Longford	1	0	0	1	0	0	0	0	0	2	0	0	16.7		33.3	
752	Yellow Island	Meath/Louth	1	1	2	1	1	0	0	0	0	6	0	0	50.0		42.4	
753	Tree Island	Meath	0	0	0	0	0	0	0	0	0	0	0	0	0.0		36.4	
756	Summerhill Demesne	Meath	1	1	0	0	0	0	0	0	0	2	0	0	16.7		27.3	
757	Ballymurphy	Meath	2	1	0	0	0	0	0	0	0	3	0	0	25.0		27.3	
760	Harristown (Meath)	Meath	1	1	0	0	1	0	0	0	0	3	0	0	25.0		36.4	
762	Summerhill Lower	Meath	0	2	0	0	0	0	0	0	0	2	0	0	16.7		36.4	
763	Milltown Glen	Meath	2	0	0	0	0	0	0	0	0	2	0	0	16.7		60.6	
765	Newcastle	Meath	1	1	0	0	0	0	0	0	0	2	0	0	16.7		39.4	
766	Drumard	Longford	0	1	0	0	0	0	0	0	0	1	0	0	8.3		36.4	
767	Kiltyclogh	Longford	2	1	0	0	0	0	0	0	0	3	0	0	25.0		54.5	
768	Forgney	Longford	0	0	0	1	0	0	0	0	0	1	0	0	8.3		42.4	
769	Kilcommock Glebe	Longford	2	0	0	0	0	0	0	0	0	2	0	0	16.7		51.5	
770	Glenmore	Longford	2	1	0	0	0	0	0	0	0	3	0	0	25.0		39.4	
771	Golaroe	Longford	2	1	0	0	0	0	0	0	0	3	0	0	25.0		66.7	
773	Kiltyreher North	Longford	0	1	0	0	0	0	0	0	0	1	0	0	8.3		45.5	
774	Cornahoo	Longford	0	1	0	0	0	0	0	0	0	1	0	0	8.3		42.4	
775	Derrybawn	Wicklow	1	0	0	0	0	0	0	0	0	1	0	0	8.3		66.7	
776	Castlehoward	Wicklow	2	0	0	0	1	0	0	0	0	3	0	0	25.0		75.8	
777	Glen of the Downs	Wicklow	1	0	0	0	0	0	0	0	0	1	0	0	8.3		87.9	
779	Shelton North	Wicklow	1	0	0	0	0	0	0	0	0	1	0	0	8.3		69.7	
780	Luggala Lodge	Wicklow	2	3	0	0	0	0	0	0	0	5	0	0	41.7		63.6	
781	The Devil's Glen	Wicklow	1	0	0	0	0	0	0	0	0	1	0	0	8.3		81.8	
783	Deputy's Pass	Wicklow	1	0	1	1	0	0	0	0	0	3	0	0	25.0		81.8	
784	Oldboleys	Wicklow	0	3	0	1	0	0	0	0	0	4	0	0	33.3		57.6	
785	Castlekevin	Wicklow	2	2	0	0	0	0	0	0	0	4	0	0	33.3		66.7	
786	The Giants Cut & Lugduff	Wicklow	1	2	0	0	0	0	0	0	0	3	0	0	25.0		75.8	
789	Knocksink	Wicklow	1	0	0	0	0	0	0	0	0	1	0	0	8.3		87.9	
791	Kilmacrea Wood	Wicklow	0	0	0	0	0	0	0	0	0	0	0	0	0.0		60.6	
792	Powerscourt Demesne North	Wicklow	2	2	1	0	0	0	0	0	0	5	0	0	41.7		42.4	
793	Altadore Demesne	Wicklow	2	0	0	0	0	0	0	0	0	2	0	0	16.7		72.7	
796	Ballyarthur	Wicklow	2	0	0	0	0	0	0	0	0	2	0	0	16.7		45.5	

Site No.	Woodland Name	County	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Missing values	% Threat Score	% Conservation Score
			Max. score		2	3	2	3	1	1	12	Score			
					2	3	2	3	1	1	12	Score		100.0	100.0
798	Kiltimon	Wicklow			2	0	0	0	0	0	2	0		16.7	48.5
799	Ballinagee Wood	Wicklow			0	0	0	0	0	0	0	0		0.0	42.4
800	Powerscourt Demense South	Wicklow			2	2	0	0	0	0	4	0		33.3	57.6
801	Brockagh	Wicklow			0	1	0	0	1	0	2	0		16.7	42.4
802	Ballinanty	Wicklow			1	0	0	0	0	0	1	0		8.3	66.7
805	Drumbaun	Longford			0	1	1	0	0	0	2	0		16.7	42.4
806	Kiltycreevagh	Longford			0	1	0	0	0	0	1	0		8.3	39.4
807	Cashel	Longford			0	2	1	1	0	0	4	0		33.3	45.5
808	Grillagh	Longford			0	0	0	0	0	0	0	0		0.0	60.6
809	Drumury	Longford			0	1	0	0	0	0	1	0		8.3	39.4
810	Leherly	Longford			0	3	0	0	0	0	3	0		25.0	39.4
811	Coolnahinch	Longford			0	0	0	1	0	0	1	0		8.3	57.6
814	Cronroe	Wicklow			2	0	0	0	0	0	2	0		16.7	69.7
815	Kilmacanoge South	Wicklow			0	0	0	1	0	0	1	0		8.3	51.5
818	Ballymacsimon	Wicklow			0	0	0	0	0	0	0	0		0.0	48.5
819	Brockagh South	Wicklow			1	0	0	0	0	0	1	0		8.3	60.6
820	Barnbawn	Wicklow			1	0	0	0	0	0	1	0		8.3	48.5
821	Ballyboy	Wicklow			0	2	2	0	0	0	4	0		33.3	66.7
822	Ballyross Wood	Wicklow			0	3	0	0	0	0	3	0		25.0	54.5
826	Newtownmount Kennedy Demesne	Wicklow			0	2	0	0	0	0	2	0		16.7	39.4
827	Glenwood	Wicklow			0	0	0	0	0	0	0	0		0.0	48.5
828	Ballyman Glen	Wicklow			1	0	0	1	0	0	2	0		16.7	57.6
829	Ballycurragh	Wicklow			0	0	0	0	0	0	0	0		0.0	39.4
830	Coolballintaggart	Wicklow			0	0	0	0	0	0	0	0		0.0	36.4
831	Coolattin	Wicklow			0	0	1	1	0	0	2	0		16.7	30.3
833	Hollywood Demesne	Wicklow			0	0	0	0	0	0	0	0		0.0	24.2
834	Poulaphuca Bridge	Wicklow			2	1	1	0	0	0	4	0		33.3	48.5
835	Mount Jessop	Longford			0	1	0	0	0	0	1	0		8.3	51.5
837	Derrydaragh	Longford			1	1	1	0	0	0	3	0		25.0	39.4
838	Dunbeggan	Longford			0	1	0	0	0	0	1	0		8.3	42.4
840	Hazel Wood	Monaghan			0	2	0	0	0	0	2	0		16.7	54.5
842	Derrynanamp	Monaghan			0	1	0	0	0	0	1	0		8.3	51.5
846	Corlat	Monaghan			1	1	1	0	1	0	4	0		33.3	51.5
848	Island Bridge	Monaghan			0	1	0	0	0	0	1	0		8.3	51.5
849	Corrybrackan	Monaghan			0	0	1	0	0	0	1	0		8.3	48.5
852	Tullyglass	Monaghan			2	1	0	0	1	0	4	0		33.3	51.5
853	Annamarron	Monaghan			2	1	0	0	0	0	3	0		25.0	54.5
854	Kilmore West	Monaghan			0	0	0	0	0	0	0	0		0.0	48.5
856	Clohoige	Monaghan			0	0	0	0	0	0	0	0		0.0	54.5
858	Graffagh	Monaghan			0	0	0	0	0	0	0	0		0.0	63.6
860	Reduff	Monaghan			2	2	0	0	0	0	4	0		33.3	60.6
861	Killygally	Monaghan			0	0	0	1	0	0	1	0		8.3	39.4
862	Annahaia	Monaghan			0	0	1	1	1	0	3	0		25.0	42.4
864	Back Wood	Monaghan			0	2	0	0	1	0	3	0		25.0	45.5
865	Lutrellstown	Dublin			2	0	2	0	0	0	4	0		33.3	63.6
866	Brooklawn Wood	Dublin			2	0	1	1	1	0	5	0		41.7	36.4
868	Drumillard Big	Monaghan			0	1	0	0	0	0	1	0		8.3	33.3
870	Coolawinnia	Wicklow			0	0	0	0	0	1	1	0		8.3	45.5
871	Blackditch	Wicklow			0	0	0	1	0	0	1	0		8.3	63.6
872	Seabank	Wicklow			0	0	0	0	0	0	0	0		0.0	45.5
874	Hollywood Glen	Wicklow			0	0	0	0	0	0	0	0		0.0	51.5
875	Glennashouk	Wicklow			0	0	0	0	0	0	0	0		0.0	51.5
876	Roundwood	Wicklow			0	2	0	0	0	0	2	0		16.7	45.5
881	Howth Demesne	Dublin			2	0	0	0	1	0	3	0		25.0	39.4
883	Santry Demesne	Dublin			0	0	0	0	1	0	1	0		8.3	39.4
884	Glenasmole Valley	Dublin			1	0	0	1	0	0	2	0		16.7	81.8
888	Kilquade	Wicklow			2	0	0	0	0	0	2	0		16.7	45.5
892	Clonkeen	Wicklow			1	0	1	0	0	0	2	0		16.7	36.4
894	Ballyward	Wicklow			0	0	1	1	0	0	2	0		16.7	45.5
895	Deerpark (Wicklow)	Wicklow			2	0	1	2	0	0	5	0		41.7	30.3
896	Rathsallagh Demense	Wicklow			2	0	1	1	0	0	4	0		33.3	39.4
899	Askakeagh	Wicklow			0	0	0	0	0	0	0	0		0.0	69.7
902	Mungacullin	Wicklow			1	0	0	0	0	0	1	0		8.3	36.4
903	Laragh	Wicklow			0	0	0	0	0	0	0	0		0.0	45.5
904	Cronelea	Wicklow			0	0	0	0	0	0	0	0		0.0	48.5
906	Knockraheen	Wicklow			0	0	0	0	0	0	0	0		0.0	39.4
907	Coolkenna	Wicklow			0	1	0	0	0	0	1	0		8.3	33.3
908	Money Upper East	Wicklow			0	0	0	0	0	0	0	0		0.0	48.5

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0								
909	Money Upper West	Wicklow		0	0	0	0	0	0	0	0	0	0	0	0	0.0			39.4	
910	Kilruddery Deerpark	Wicklow		1	0	0	0	0	0	0	1	0			8.3			48.5		
914	Ballinagee	Wicklow		0	2	0	0	0	0	0	2	0			16.7			60.6		
915	Malahide Demesne	Dublin		2	0	1	0	1	0	4	0			33.3			30.3			
916	Newbridge Demesne	Dublin		2	1	2	0	0	0	5	0			41.7			42.4			
917	Pumphouse Wood	Dublin		2	1	0	1	0	0	4	0			33.3			36.4			
918	Loughlinstown Wood	Dublin		1	1	0	1	0	0	3	0			25.0			54.5			
919	Fitzsimons Wood	Dublin		1	0	0	0	0	0	1	0			8.3			48.5			
921	Brackenstown Wood	Dublin		2	1	1	1	1	0	6	0			50.0			30.3			
922	Dunganstown West	Wicklow		2	2	0	1	0	0	5	0			41.7			69.7			
923	Ballard Lower	Wicklow		0	3	0	0	1	0	4	0			33.3			45.5			
924	Kelshabeg	Wicklow		0	0	0	1	0	0	1	0			8.3			51.5			
925	Crookslin Glen	Dublin		1	0	2	0	1	0	4	0			33.3			42.4			
927	Donadea Forest Park	Kildare		0	0	2	2	0	0	4	0			33.3			63.6			
930	Blackwood	Dublin		2	1	0	0	1	0	4	0			33.3			33.3			
931	Balcarrick	Dublin		1	1	0	0	1	0	3	0			25.0			24.2			
934	Rush Demesne	Dublin		2	1	1	0	1	0	5	0			41.7			24.2			
935	Bray Head Woodland	Wicklow		0	1	1	0	1	0	3	0			25.0			48.5			
938	Carton Demense	Kildare		2	0	1	0	1	0	4	0			33.3			63.6			
939	Kilteel Wood	Kildare		0	1	0	0	0	0	1	0			8.3			36.4			
942	Carbury Wood	Kildare		2	0	0	0	0	0	2	0			16.7			48.5			
943	Templelyon Lower	Wicklow		0	0	0	0	0	0	0	0			0.0			45.5			
944	Rahaval	Wicklow		0	0	0	0	0	0	0	0			0.0			39.4			
947	Russellswood	Kildare		0	0	0	0	1	0	1	0			8.3			45.5			
948	Rahin Wood (Kildare)	Kildare		0	0	0	1	0	0	1	0			8.3			66.7			
951	Kilcarra West	Wicklow		1	0	0	1	0	0	2	0			16.7			75.8			
952	Avondale	Wicklow		0	0	0	0	0	0	0	0			0.0			42.4			
955	Graigie	Wicklow		0	0	0	1	0	0	1	0			8.3			39.4			
956	Fiddancoyle	Wicklow		0	0	1	0	0	0	1	0			8.3			48.5			
961	Knockloe	Wicklow		0	2	0	0	1	0	3	0			25.0			30.3			
963	Killinthomas Wood	Kildare		0	1	0	3	1	0	5	0			41.7			48.5			
966	Ballymore Eustace	Kildare		2	0	2	1	0	0	5	0			41.7			33.3			
967	Mullaghreelan Wood	Kildare		1	1	1	2	0	0	5	0			41.7			27.3			
968	Drehid Wood	Kildare		0	1	0	0	0	0	1	0			8.3			51.5			
970	Pluckerstown	Kildare		0	1	0	1	0	0	2	0			16.7			33.3			
971	Derryvullagh Island	Kildare		0	1	0	0	0	0	1	0			8.3			45.5			
974	Moods	Kildare		0	1	0	0	0	1	2	0			16.7			33.3			
975	Royal Oak	Kildare		1	1	0	1	0	0	3	0			25.0			45.5			
978	Pollardstown Wood	Kildare		0	0	0	0	0	0	0	0			0.0			39.4			
981	Newbridge School Wood	Kildare		2	1	1	0	1	0	5	0			41.7			30.3			
982	Greatconnell	Kildare		0	0	0	1	0	0	1	0			8.3			51.5			
984	Coolbeg	Wicklow		0	0	0	0	0	0	0	0			0.0			45.5			
987	High Park Upper	Wicklow		2	0	0	1	0	0	3	0			25.0			45.5			
988	Manger Wood	Wicklow		1	1	0	0	0	0	2	0			16.7			48.5			
990	Kilmullin	Wicklow		1	0	1	0	0	0	2	0			16.7			36.4			
992	Money	Wicklow		0	0	0	2	0	0	2	0			16.7			42.4			
994	Coolinarrig Lower	Wicklow		1	0	0	1	0	0	2	0			16.7			36.4			
996	Carrigeenduff	Wicklow		0	0	0	0	0	0	0	0			0.0			54.5			
999	Tithewer	Wicklow		1	0	0	0	0	0	1	0			8.3			45.5			
1001	Glendarragh	Wicklow		1	0	0	0	0	0	1	0			8.3			45.5			
1003	Castletown	Kildare		0	1	0	0	0	0	1	0			8.3			51.5			
1004	Ballycullane	Kildare		0	1	0	1	0	0	2	0			16.7			30.3			
1005	Foxhill	Kildare		0	1	0	0	0	0	1	0			8.3			36.4			
1006	Kildangan	Kildare		1	1	0	0	0	0	2	0			16.7			45.5			
1007	Mitchels Wood	Kildare		2	1	0	1	0	0	4	0			33.3			63.6			
1008	Martinstown	Kildare		1	0	0	1	0	0	2	0			16.7			60.6			
1010	Derrylea Large	Kildare		0	0	0	0	0	0	0	0			0.0			51.5			
1011	Derrylea Small	Kildare		0	1	1	0	0	0	2	0			16.7			33.3			
1014	Donode Big	Kildare		0	0	0	0	0	0	0	0			0.0			33.3			
1017	Maguire's Wood	Kildare		2	1	0	0	0	0	3	0			25.0			39.4			
1018	Laragh Demesne	Kildare		2	1	2	0	0	0	5	0			41.7			21.2			
1020	Kilmore (Kildare)	Kildare		1	1	0	0	0	0	2	0			16.7			24.2			
1021	Bertbridge	Kildare		1	3	0	1	0	0	5	0			41.7			33.3			
1022	Knocknacree Wood	Kildare		0	2	0	0	0	0	2	0			16.7			48.5			
1023	Burtonhall Demense	Kildare		0	0	0	0	0	0	0	0			0.0			39.4			
1024	Moone Woodlands	Kildare		0	1	0	1	0	0	2	0			16.7			51.5			
1025	Moone Park	Kildare		0	0	1	0	0	0	1	0			8.3			21.2			
1026	Spratstown	Kildare		0	0	0	0	1	0	1	0			8.3			27.3			

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0						
1028	Burton Little	Kildare		1	1	1	0	0	0	0	3	0	25.0				39.4	
1033	Crappagh	Monaghan		0	1	0	0	0	0	1	0	8.3				33.3		
1037	Comertagh	Monaghan		0	0	1	0	0	0	1	0	8.3				51.5		
1042	Barrymore North	Roscommon		0	0	0	0	0	0	0	0	0.0				72.7		
1043	Barry More Shore	Roscommon		0	2	0	0	0	0	2	0	16.7				69.7		
1046	Faws	Roscommon		0	1	0	0	0	0	1	0	8.3				48.5		
1047	Harristown (Roscommon)	Roscommon		0	1	0	0	0	0	1	0	8.3				51.5		
1048	Gray's Wood	Roscommon		2	1	0	0	0	0	3	0	25.0				42.4		
1050	Willsgrove	Roscommon		2	0	0	0	0	0	2	0	16.7				63.6		
1052	Cloonageeragh	Roscommon		0	1	0	0	0	0	1	0	8.3				51.5		
1053	Mountdillon	Roscommon		0	0	0	0	0	0	0	0	0.0				45.5		
1054	Carrowroe	Roscommon		1	0	0	0	0	0	1	0	8.3				51.5		
1057	Faltia	Roscommon		0	0	1	0	0	0	1	0	8.3				45.5		
1058	Johnstown Demesne	Roscommon		0	0	0	0	0	0	0	0	0.0				27.3		
1059	Mount Talbot South	Roscommon		0	0	0	0	0	0	0	0	0.0				63.6		
1060	Carrownalagh	Roscommon		0	0	0	0	0	0	0	0	0.0				54.5		
1061	Cornaseer	Roscommon		0	1	0	0	0	0	1	0	8.3				63.6		
1063	The Glen	Monaghan		0	0	0	0	0	0	0	0	0.0				54.5		
1064	Capragh Lough	Monaghan		1	0	0	0	0	0	1	0	8.3				48.5		
1076	Scragh Bog	Westmeath		2	1	2	1	0	0	6	0	50.0				57.6		
1078	Lough Owel Wood	Westmeath		2	1	0	0	0	0	3	0	25.0				54.5		
1079	Ballynafid	Westmeath		2	1	2	0	0	0	5	0	41.7				66.7		
1081	Lough Ennell Wood	Westmeath		0	1	1	0	0	0	2	0	16.7				54.5		
1084	Gaybrook Demense	Westmeath		2	0	1	0	0	0	3	0	25.0				63.6		
1085	Clonsingle	Westmeath		2	1	2	0	0	0	5	0	41.7				54.5		
1086	Meehan Wood	Westmeath		0	0	0	0	0	0	0	0	0.0				69.7		
1087	Lissakillen North	Westmeath		1	1	0	1	0	0	3	0	25.0				51.5		
1088	Whinning Wood	Westmeath		1	1	0	1	0	0	3	0	25.0				72.7		
1090	Creaghduff	Westmeath		0	0	0	0	0	0	0	0	0.0				66.7		
1093	Joanstown Wood	Westmeath		0	1	0	1	0	0	2	0	16.7				42.4		
1094	Baronstown Demense	Westmeath		0	1	0	1	0	0	2	0	16.7				48.5		
1095	Lough Iron Wood	Westmeath		1	1	0	0	0	0	2	0	16.7				57.6		
1096	Tristernagh Demense	Westmeath		0	1	0	0	0	0	1	0	8.3				36.4		
1097	Knockeyon Wood	Westmeath		0	0	0	0	0	0	0	0	0.0				66.7		
1098	Garlandstown Wood	Westmeath		0	1	0	0	0	0	1	0	8.3				72.7		
1099	Kiltoom	Westmeath		1	1	0	0	0	0	2	0	16.7				54.5		
1100	Donore	Westmeath		0	0	1	0	0	0	1	0	8.3				54.5		
1101	Lackan Wood	Westmeath		0	1	0	1	0	0	2	0	16.7				51.5		
1102	Kiltober Esker	Westmeath		0	1	0	0	0	0	1	0	8.3				66.7		
1103	Longhill Esker	Westmeath		0	0	0	0	0	0	0	0	0.0				63.6		
1104	Ballymacmorris Wood	Westmeath		1	1	0	0	0	0	2	0	16.7				57.6		
1105	Higginstown Wood	Westmeath		0	0	0	0	0	0	0	0	0.0				51.5		
1106	Bracklin Wood	Westmeath		2	0	0	0	0	0	2	0	16.7				72.7		
1107	Ballyhealy (Westmeath)	Westmeath		0	1	1	1	0	0	3	0	25.0				48.5		
1108	Tonlemony Wood	Westmeath		0	1	0	0	0	0	1	0	8.3				48.5		
1109	Corr Wood	Westmeath		2	1	0	0	0	0	3	0	25.0				57.6		
1110	Cavestown	Westmeath		1	2	0	2	0	0	5	0	41.7				72.7		
1111	Lough Slevin's Wood	Westmeath		2	2	0	2	0	0	6	0	50.0				75.8		
1112	Kinturk Demense	Westmeath		1	1	0	1	0	0	3	0	25.0				54.5		
1114	Carnpark	Westmeath		1	1	1	1	0	0	4	0	33.3				57.6		
1115	Caran Wood	Westmeath		0	1	1	1	0	0	3	0	25.0				27.3		
1116	Cornacuask	Westmeath		2	1	2	0	0	0	5	0	41.7				45.5		
1117	Ballykildevin	Westmeath		1	1	0	0	0	0	2	0	16.7				42.4		
1118	Clothes Rock Wood	Roscommon		2	1	1	1	0	0	5	0	41.7				45.5		
1119	Mount Talbot North	Roscommon		0	0	0	1	0	0	1	0	8.3				42.4		
1120	Cloonmore	Roscommon		0	1	0	0	0	0	1	0	8.3				54.5		
1121	Lecarrow	Roscommon		0	0	0	0	0	0	0	0	0.0				51.5		
1124	Ardan Wood	Westmeath		0	1	0	0	0	0	1	0	8.3				51.5		
1125	Barbavilla Demense	Westmeath		2	0	2	0	0	0	4	0	33.3				69.7		
1127	Pakenhamhall	Westmeath		0	1	0	1	0	0	2	0	16.7				42.4		
1128	Tullynally	Westmeath		0	0	0	0	0	0	0	0	0.0				27.3		
1131	Reynella	Westmeath		1	0	0	0	0	0	1	0	8.3				33.3		
1132	Reynella Lough	Westmeath		2	1	0	0	1	0	4	0	33.3				36.4		
1133	Ballyowen	Westmeath		0	2	0	1	1	0	4	0	33.3				33.3		
1141	Clonybane	Westmeath		1	0	0	0	0	0	1	0	8.3				36.4		
1143	Knockasha Wood	Westmeath		0	1	0	0	0	0	1	0	8.3				42.4		
1145	Gortnafada	Westmeath		0	0	0	1	0	0	1	0	8.3				39.4		
1146	Bunanagh Wood	Westmeath		0	1	0	0	0	0	1	0	8.3				45.5		

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	Score					
1147	Coolalough	Westmeath	0	0	1	0	0	0	0	1	0	8.3	42.4			
1148	Glassavullaun	Dublin	0	1	0	0	0	0	1	0	8.3	33.3				
1149	Lough Crew	Meath	0	0	0	0	0	0	0	0	0.0	39.4				
1150	Collon North	Louth	2	2	1	0	0	0	5	0	41.7	63.6				
1151	Phoenix Park	Dublin	0	3	0	0	0	0	3	0	25.0	39.4				
1152	Abbotstown	Dublin	2	1	1	0	1	0	5	0	41.7	45.5				
1153	Tankardstown South	Meath	0	0	0	0	1	0	1	0	8.3	30.3				
1154	Gartinadress	Cavan	0	1	1	0	0	0	2	0	16.7	30.3				
1155	Aghyrassy	Westmeath	0	2	0	0	0	0	2	0	16.7	72.7				
1156	Flagpole Lough Shore	Monaghan	2	0	0	0	0	0	2	0	16.7	51.5				
1157	Skeagh Headland	Cavan	2	1	0	0	1	0	4	0	33.3	45.5				
1158	Killyconigan	Monaghan	1	1	2	0	0	0	4	0	33.3	48.5				
1159	Barneath Castle Hill	Louth	2	1	0	0	1	0	4	0	33.3	42.4				
1160	Porteen Wood	Roscommon	0	0	0	0	0	0	0	0	0.0	45.5				
1161	Derrycassan	Cavan	0	0	0	0	0	0	0	0	0.0	54.5				
1162	Mullaghamcateer	Monaghan	0	3	0	1	0	0	4	0	33.3	18.2				
1163	Killycramph Wood Shoreline	Cavan	1	0	0	0	0	0	1	0	8.3	51.5				
1164	Newtown	Cavan	0	0	0	0	0	0	0	0	0.0	51.5				
1166	Newtownlow Esker Woodland	Westmeath	0	0	0	1	0	0	1	0	8.3	69.7				
1167	Coolinarig	Wicklow	0	3	0	1	0	0	4	0	33.3	45.5				
1168	Rathshane	Westmeath	1	2	0	1	0	0	4	0	33.3	30.3				
1169	The Quill Woods	Wicklow	0	0	0	0	0	0	0	0	0.0	54.5				
1170	Bellamont Forest Centre	Cavan	2	0	0	0	0	0	2	0	16.7	42.4				
1171	Derrysheridan South Shore	Meath	0	1	0	0	0	0	1	0	8.3	45.5				
1172	Derrysheridan North Shore	Meath	0	0	0	0	0	0	0	0	0.0	54.5				
1173	Capragh Lough South	Monaghan	0	0	0	0	0	0	0	0	0.0	42.4				
1174	Annies Bog	Monaghan	0	0	0	0	0	0	0	0	0.0	36.4				
1175	Coolnacarte Plantation	Monaghan	2	0	0	1	0	0	3	0	25.0	33.3				
1176	The Downs Wood	Monaghan	2	0	1	1	0	0	4	0	33.3	54.5				
1177	Lough Fea Lake	Monaghan	2	1	0	0	0	0	3	0	25.0	69.7				
1178	Derrylavan	Monaghan	2	0	0	0	0	0	2	0	16.7	54.5				
1179	Stickillin	Louth	0	0	0	0	0	0	0	0	0.0	39.4				
1190	Shelton	Wicklow	0	0	0	0	0	0	0	0	0.0	48.5				
1191	Allenwood North	Kildare	1	1	0	0	0	0	2	0	16.7	48.5				
1193	Carrick	Kildare	0	1	0	0	0	0	1	0	8.3	42.4				
1194	Kilcooney River Wood	Kildare	1	0	0	1	0	0	2	0	16.7	33.3				
1196	Loughnacush	Kildare	0	0	0	0	0	0	0	0	0.0	54.5				
1198	Heritage Park Wood	Kildare	0	1	0	0	0	0	1	0	8.3	45.5				
1199	Ballindoolin	Kildare	2	1	0	2	0	0	5	0	41.7	45.5				
1200	Leopardstown Woods	Dublin	2	1	1	2	0	0	6	0	50.0	33.3				
1201	Clongowes College Wood	Kildare	0	0	1	0	1	0	2	0	16.7	45.5				
1205	Rickardstown North	Westmeath	2	1	1	0	0	0	4	0	33.3	36.4				
1206	Rickardstown South	Westmeath	0	1	0	1	0	0	2	0	16.7	39.4				
1207	Clonyn	Westmeath	0	1	0	0	0	0	1	0	8.3	48.5				
1209	Cooksborough	Westmeath	0	1	0	1	0	0	2	0	16.7	51.5				
1210	Kilcleagh	Westmeath	2	1	1	1	1	0	6	0	50.0	48.5				
1211	Bolinarra Bog Wood	Westmeath	0	0	0	0	0	0	0	0	0.0	48.5				
1212	Killachonna	Westmeath	0	1	0	0	0	0	1	0	8.3	39.4				
1213	Auburn	Westmeath	1	1	1	0	0	0	3	0	25.0	57.6				
1215	Allenwood Road Wood	Kildare	1	0	0	0	0	0	1	0	8.3	45.5				
1216	Ballindoolin Bog Wood	Kildare	0	1	0	1	0	0	2	0	16.7	33.3				
1217	Knockcor Wood	Kildare	2	1	0	0	0	0	3	0	25.0	51.5				
1218	Plan Wood	Meath	1	0	0	0	1	0	2	0	16.7	39.4				
1219	Knockagh	Louth	0	0	0	0	0	0	0	0	0.0	36.4				
1220	Kilnahard	Cavan	0	0	0	0	0	0	0	0	0.0	48.5				
1221	Sruveel	Monaghan	0	0	0	1	0	0	1	0	8.3	48.5				
1222	Lannat	Louth	0	1	0	1	0	0	2	0	16.7	45.5				
1224	Oghill	Cavan	0	0	0	0	0	0	0	0	0.0	33.3				
1227	Stormanstown Bog	Louth	0	1	1	0	0	0	2	0	16.7	42.4				
1228	Carrickynaghtan	Roscommon	0	1	0	1	0	0	2	0	16.7	36.4				
1229	Taylorstown	Roscommon	0	1	0	1	0	0	2	0	16.7	33.3				
1230	Barrymore	Roscommon	0	1	0	1	0	0	2	0	16.7	42.4				
1231	Thomastown Demense	Roscommon	0	0	1	1	0	0	2	0	16.7	51.5				
1233	Drumlagagh	Roscommon	0	2	0	1	0	0	3	0	25.0	57.6				
1234	Coosan Point Hazel Wood	Westmeath	0	2	0	0	0	0	2	0	16.7	69.7				
1235	Killinure North	Westmeath	0	1	0	0	0	0	1	0	8.3	57.6				
1237	St. Catherine's Wood	Dublin	2	1	0	0	0	0	3	0	25.0	66.7				
1238	Money Lower	Wicklow	0	0	0	0	0	0	0	0	0.0	45.5				

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0								
1239	Money East	Wicklow		1	0	0	0	0	0	0	1	0	8.3		39.4					
1240	Ballymarroge	Wicklow		1	0	0	1	0	0	2	0	16.7		54.5						
1241	Rosahane	Wicklow		0	0	0	0	0	0	0	0	0.0		42.4						
1242	Carrickobreen River Wood	Westmeath		0	0	0	0	0	0	0	0	0.0		33.3						
1243	Carrickobreen Bog Wood	Westmeath		0	1	0	1	0	0	2	0	16.7		36.4						
1250	Shurock Wood	Westmeath		0	0	0	1	0	0	1	0	8.3		30.3						
1251	Corduff East	Cavan		0	1	0	0	0	0	1	0	8.3		39.4						
1252	Corduff West	Cavan		0	1	0	0	0	0	1	0	8.3		42.4						
1253	Ongenstown	Meath		0	0	0	0	0	0	0	0	0.0		36.4						
1254	Dowdstown	Meath		0	3	1	0	0	0	4	0	33.3		15.2						
1255	Ongenstown West	Meath		0	2	1	0	0	0	3	0	25.0		36.4						
1258	Lismullin	Meath		1	0	2	0	1	0	4	0	33.3		39.4						
1259	Blackcastle Demesne	Meath		2	0	1	1	1	0	5	0	41.7		33.3						
1260	Collon Northwest	Louth		0	3	0	0	0	0	3	0	25.0		48.5						
1261	Derredis Upper	Cavan		0	0	0	0	0	0	0	0	0.0		60.6						
1262	Ballinrink	Meath		0	0	0	0	1	0	1	0	8.3		27.3						
1263	Tubbrid (Meath)	Meath		0	0	0	0	0	0	0	0	0.0		39.4						
1264	Halfcartron	Meath		2	0	2	1	1	0	6	0	50.0		39.4						
1265	Collon Wood	Louth		1	3	0	1	0	0	5	0	41.7		39.4						
1266	Bellews Hill	Louth		0	0	2	1	0	0	3	0	25.0		36.4						
1270	Rossacroonaloo	Kerry		0	0	0	0	0	0	0	0	0.0		69.7						
1272	Darrynane More	Kerry		2	0	0	0	0	0	2	0	16.7		69.7						
1273	Uragh Wood	Kerry		0	0	0	0	0	0	0	0	0.0		81.8						
1275	Kilgarvan Wood	Kerry		1	0	0	1	0	0	2	0	16.7		87.9						
1277	Lyranes Lower Wood	Kerry		1	1	0	0	0	0	2	0	16.7		81.8						
1279	Dromore Old	Kerry		1	0	1	1	0	0	3	0	25.0		75.8						
1280	Lehid Wood	Kerry		1	0	0	1	0	0	2	0	16.7		69.7						
1281	Glenstal Wood	Limerick		2	1	0	0	0	0	3	0	25.0		66.7						
1284	Gortnageragh River Valley	Limerick		1	0	0	1	0	0	2	0	16.7		69.7						
1286	Clare Glen	Limerick		2	0	0	0	0	0	2	0	16.7		81.8						
1287	Caher Wood	Kerry		0	0	0	0	0	0	0	0	0.0		48.5						
1288	Game Wood	Kerry		2	0	0	1	0	0	3	0	25.0		66.7						
1289	Tomies Wood	Kerry		1	3	0	0	0	0	4	0	33.3		69.7						
1290	Derrycunihy Wood	Kerry		1	3	0	0	0	0	4	0	33.3		75.8						
1291	Reenadinna Wood	Kerry		2	2	0	0	0	0	4	0	33.3		78.8						
1292	Looscaunagh Wood	Kerry		1	0	0	0	0	0	1	0	8.3		72.7						
1293	Glen Bog	Limerick		0	1	0	0	0	0	1	0	8.3		45.5						
1294	Toryhill	Limerick		0	0	0	0	0	0	0	0	0.0		60.6						
1295	Glencurrane	Limerick		1	1	0	2	0	0	4	0	33.3		66.7						
1296	Graigie Wood	Limerick		2	1	1	0	0	0	4	0	33.3		66.7						
1297	Mountrussell Wood	Limerick		0	0	0	0	0	0	0	0	0.0		69.7						
1298	Knockanes	Limerick		1	1	1	1	0	0	4	0	33.3		51.5						
1299	Gortigrenane	Cork		2	1	0	0	0	0	3	0	25.0		57.6						
1300	Coolymurraghue	Cork		1	1	0	0	0	0	2	0	16.7		60.6						
1301	Knockomagh Wood	Cork		1	1	1	0	0	0	3	0	25.0		57.6						
1302	Prohus	Cork		0	1	0	0	0	0	1	0	8.3		63.6						
1305	Manch East	Cork		1	1	0	0	1	0	3	0	25.0		54.5						
1306	Milleenanannig	Cork		1	1	0	0	0	0	2	0	16.7		60.6						
1307	East Wood	Cork		2	1	0	1	0	0	4	0	33.3		51.5						
1308	St Gobnet's Wood	Cork		2	0	0	0	0	0	2	0	16.7		63.6						
1310	Garrycloyne Wood	Cork		2	2	1	1	0	0	6	0	50.0		69.7						
1311	Coolatanavally	Cork		0	0	0	1	0	0	1	0	8.3		45.5						
1312	Cloghphilip Wood	Cork		0	1	0	0	0	0	1	0	8.3		69.7						
1313	Pigeon Wood	Cork		2	1	0	3	0	0	6	0	50.0		54.5						
1314	Toon Valley	Cork		0	0	0	0	0	0	0	0	0.0		81.8						
1315	Coolyduff	Cork		1	1	1	2	0	0	5	0	41.7		75.8						
1316	Glengarriff	Cork		1	0	0	0	0	0	1	0	8.3		87.9						
1317	The Gearagh	Cork		1	0	0	0	0	0	1	0	8.3		84.8						
1321	Castlebernard	Cork		1	0	0	1	0	0	2	0	16.7		63.6						
1322	Ballyedmond	Cork		2	0	0	0	1	0	3	0	25.0		63.6						
1323	Cleanderry Wood	Cork		1	0	0	2	0	0	3	0	25.0		72.7						
1324	Glenbeg	Cork		0	2	0	0	0	0	2	0	16.7		60.6						
1325	Dunbeacon	Cork		1	1	0	0	0	0	2	0	16.7		48.5						
1326	Ballyhallagh	Cork		0	1	0	0	0	0	1	0	8.3		51.5						
1327	Ardglass	Cork		0	0	0	0	0	0	0	0	0.0		60.6						
1329	Barrees	Cork		1	0	0	1	0	0	2	0	16.7		78.8						
1330	Ballyannan	Cork		0	1	0	1	1	0	3	0	25.0		45.5						
1332	Cloheen Strand Intake	Cork		0	1	0	0	0	0	1	0	8.3		30.3						

Site No.	Woodland Name	County	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
			2	3	2	3	2	3	1	1	1	1	12	12			100.0	100.0
1334	Priory Wood	Cork	0	1	0	2	0	0	0	0	3	0	25.0	66.7				
1335	Rochestown Wood	Cork	0	2	0	0	0	0	0	2	0	16.7	45.5					
1336	Curraghbinny Wood	Cork	2	1	0	0	0	0	0	3	0	25.0	54.5					
1337	Modeligo Wood	Cork	1	0	1	3	0	0	0	5	0	41.7	33.3					
1338	Derrylahan	Cork	0	0	0	1	0	0	1	0	8.3	63.6						
1339	Kilnagurteen	Cork	0	0	0	0	0	0	0	0	0.0	66.7						
1340	Curraghmore Wood	Cork	1	0	0	0	0	0	0	1	0	8.3	63.6					
1342	Lougheagle	Cork	0	0	0	0	0	1	1	0	8.3	42.4						
1343	Banteer	Cork	0	1	0	1	0	0	2	0	16.7	51.5						
1344	Blarney Castle Woods	Cork	2	0	1	0	0	0	3	0	25.0	51.5						
1345	Glashgariff River	Cork	0	0	0	0	0	0	0	0	0.0	57.6						
1347	Killaneer	Cork	1	0	0	1	0	0	2	0	16.7	72.7						
1348	Glebe	Cork	0	1	0	0	0	0	1	0	8.3	54.5						
1349	Carrignacurra	Cork	0	1	0	0	0	0	1	0	8.3	57.6						
1351	Creggane	Cork	0	1	0	1	1	0	3	0	25.0	15.2						
1353	Renny Lower	Cork	1	1	1	1	1	0	5	0	41.7	39.4						
1354	Glennville	Cork	0	0	0	0	0	0	0	0	0.0	57.6						
1355	Philip's Wood	Cork	2	0	0	0	0	0	2	0	16.7	57.6						
1356	Knockardsharriv	Cork	1	1	0	2	0	0	4	0	33.3	75.8						
1357	Cooldurragha	Cork	0	0	1	0	0	0	1	0	8.3	57.6						
1358	Roughfield Wood	Cork	1	0	1	0	0	0	2	0	16.7	66.7						
1359	Coolmoohan Wood	Cork	0	0	0	1	0	0	1	0	8.3	54.5						
1360	Rathmore Wood	Cork	1	1	0	1	0	0	3	0	25.0	63.6						
1361	Cloheena Wood	Cork	0	2	1	0	0	0	3	0	25.0	75.8						
1363	Wet Wood Cork	Cork	0	0	0	0	0	0	0	0	0.0	51.5						
1364	Corbally South	Cork	0	1	0	0	0	0	1	0	8.3	51.5						
1365	Glencam	Cork	0	0	0	1	0	0	1	0	8.3	63.6						
1367	Lahardane More	Cork	1	1	0	0	0	0	2	0	16.7	48.5						
1370	Inishbeg	Cork	1	1	1	0	0	0	3	0	25.0	45.5						
1371	Bridge Wood	Cork	1	1	2	0	1	0	5	0	41.7	42.4						
1372	Curradonohoe	Cork	0	2	0	1	0	0	3	0	25.0	57.6						
1374	Aghabeg	Cork	1	0	0	0	0	0	1	0	8.3	54.5						
1375	Leahill	Cork	1	0	0	0	0	0	1	0	8.3	63.6						
1379	Curragh East	Cork	0	1	0	0	0	0	1	0	8.3	57.6						
1381	Drombrow Lake	Cork	2	1	0	0	0	0	3	0	25.0	48.5						
1382	Derreenacusha	Cork	0	2	0	0	0	0	2	0	16.7	42.4						
1383	Dromore	Cork	0	0	0	0	0	0	0	0	0.0	57.6						
1386	Dromasta	Cork	1	0	0	0	0	0	1	0	8.3	66.7						
1388	Carrigskullihy	Cork	2	2	0	0	0	0	4	0	33.3	39.4						
1389	Carrigskullihy Wood	Cork	1	0	0	1	0	0	2	0	16.7	66.7						
1390	Farnanes Wood	Cork	2	0	0	1	0	0	3	0	25.0	72.7						
1391	Dreenwanish Wood	Cork	0	0	0	0	0	0	0	0	0.0	69.7						
1393	Derryvacorneen East	Cork	0	3	0	0	0	0	3	0	25.0	51.5						
1394	Inchideraile	Cork	0	0	0	0	0	0	0	0	0.0	57.6						
1395	Curra Cahill	Cork	0	0	0	0	0	0	0	0	0.0	63.6						
1396	Gneevs	Cork	0	2	0	0	0	0	2	0	16.7	60.6						
1399	Inchileigh	Cork	0	0	0	0	1	0	1	0	8.3	54.5						
1400	Cullentra Wood	Sligo	1	2	0	1	0	0	4	0	33.3	78.8						
1401	Union Wood	Sligo	2	0	0	0	0	0	2	0	16.7	57.6						
1403	Mountain Wood	Sligo	2	0	0	0	0	0	2	0	16.7	69.7						
1404	Clogher (Sligo)	Sligo	1	1	0	0	0	0	2	0	16.7	69.7						
1405	Kilbrattan Wood	Sligo	2	1	1	0	0	0	4	0	33.3	72.7						
1408	Cleaveragh Demesne	Sligo	2	1	0	1	0	0	4	0	33.3	66.7						
1409	Hazelwood Demesne	Sligo	2	1	1	0	0	0	4	0	33.3	78.8						
1410	Tanrego	Sligo	1	1	0	0	0	0	2	0	16.7	63.6						
1411	Sliswood	Sligo	2	0	0	0	0	0	2	0	16.7	60.6						
1412	Clogh Wood	Sligo	1	0	0	1	0	0	2	0	16.7	72.7						
1413	Drumfad	Sligo	1	3	0	0	0	0	4	0	33.3	48.5						
1417	Sroove	Sligo	0	1	0	0	0	0	1	0	8.3	57.6						
1418	Correagh	Sligo	1	0	0	0	0	0	1	0	8.3	39.4						
1419	Derkmore Wood	Donegal	0	3	0	0	0	0	3	0	25.0	54.5						
1420	Rathmullan Wood	Donegal	1	0	0	0	0	0	1	0	8.3	84.8						
1421	Duntally Wood	Donegal	1	0	0	0	0	0	1	0	8.3	69.7						
1422	Ballyarr Wood	Donegal	0	0	0	1	0	0	1	0	8.3	87.9						
1423	Mullangore Wood	Donegal	2	0	0	0	0	0	2	0	16.7	69.7						
1424	Derry Beg	Donegal	1	0	0	0	0	0	1	0	8.3	48.5						
1426	Derrylahan North	Donegal	1	0	0	0	0	0	1	0	8.3	39.4						
1427	Ardnamona Wood	Donegal	1	0	0	0	0	0	1	0	8.3	90.9						

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0						
1428	Lougheask Demesne	Donegal	2	1	1	0	0	0	0	4	0	33.3	84.8					
1429	Cottian Wood	Donegal	0	0	0	2	0	0	2	0	16.7	84.8						
1430	Salt Pans	Donegal	1	0	0	0	0	0	1	0	8.3	84.8						
1432	Foxhall	Donegal	2	0	0	1	0	0	3	0	25.0	81.8						
1433	Glenineeny	Donegal	0	0	0	2	0	0	2	0	16.7	78.8						
1434	Ballynarry	Donegal	0	0	0	1	0	0	1	0	8.3	81.8						
1435	Doon Glebe	Donegal	1	0	0	1	0	0	2	0	16.7	75.8						
1436	Keeloges	Donegal	0	0	0	1	0	0	1	0	8.3	84.8						
1438	Muff (Donegal)	Donegal	1	1	0	1	0	0	3	0	25.0	69.7						
1439	Ards Forest Park	Donegal	2	0	1	0	0	0	3	0	25.0	90.9						
1440	Dunwiley	Donegal	0	2	1	1	0	0	4	0	33.3	57.6						
1441	Carndonagh	Donegal	0	0	0	0	0	0	0	0	0.0	66.7						
1442	Glennagiveny	Donegal	0	0	0	1	0	0	1	0	8.3	54.5						
1447	Portlough	Donegal	0	1	0	0	0	0	1	0	8.3	42.4						
1448	Bohullion Lower	Donegal	0	3	0	0	0	0	3	0	25.0	66.7						
1449	Feddyglass Wood	Donegal	1	0	0	2	0	0	3	0	25.0	51.5						
1455	Oughtnadrin	Donegal	0	0	0	2	0	0	2	0	16.7	72.7						
1456	Carrickbreeny	Donegal	0	0	0	0	0	0	0	0	0.0	72.7						
1459	Aghaneenagh	Cork	0	0	0	0	0	0	0	0	0.0	78.8						
1460	Kilmeen Wood	Cork	0	0	0	0	0	0	0	0	0.0	48.5						
1463	Dunmarklun	Cork	0	0	0	0	0	0	0	0	0.0	66.7						
1464	Kilcanway	Cork	2	1	2	0	0	0	5	0	41.7	51.5						
1465	Duvglasha	Cork	0	0	0	0	0	0	0	0	0.0	54.5						
1466	Kilmichael	Cork	1	1	0	0	0	0	2	0	16.7	60.6						
1468	Ringnanean Wood	Cork	1	1	1	1	1	0	5	0	41.7	48.5						
1471	Garranes	Cork	1	1	0	1	0	0	3	0	25.0	66.7						
1472	Ballinphellic	Cork	0	1	1	0	0	0	2	0	16.7	63.6						
1473	Templemichael	Cork	0	0	0	0	0	0	0	0	0.0	72.7						
1476	Lackenacummeen	Cork	0	0	0	1	0	0	1	0	8.3	45.5						
1479	Courtmacsherry	Cork	1	0	0	1	1	0	3	0	25.0	42.4						
1481	Ummara Wood	Cork	1	1	1	1	1	0	5	0	41.7	66.7						
1482	Tubbrid (Cork)	Cork	0	1	0	0	0	0	1	0	8.3	51.5						
1483	Knocknamallavoge	Cork	0	1	0	1	0	0	2	0	16.7	51.5						
1484	Ballyclogh	Cork	2	0	0	0	0	0	2	0	16.7	30.3						
1485	Glenbower Wood	Cork	1	1	0	0	0	0	2	0	16.7	51.5						
1486	Drinshane Beg	Cork	0	0	0	2	0	0	2	0	16.7	60.6						
1488	Scartbarry	Cork	2	0	0	0	0	0	2	0	16.7	66.7						
1489	Ballyduhig North	Cork	0	1	1	1	0	0	3	0	25.0	51.5						
1490	Lisdangan	Cork	0	0	0	0	0	0	0	0	0.0	66.7						
1491	French Wood	Cork	2	1	0	1	0	0	4	0	33.3	84.8						
1492	Lackendarragh South	Cork	0	1	0	0	0	0	1	0	8.3	45.5						
1493	Glanatnaw Wood	Cork	0	0	0	1	0	0	1	0	8.3	42.4						
1494	Gortnascreeny Wood	Cork	1	0	0	0	0	0	1	0	8.3	45.5						
1495	Camillan Wood	Kerry	1	0	0	0	0	0	1	0	8.3	72.7						
1496	Poulaphuca Wood	Sligo	1	1	0	0	0	0	2	0	16.7	63.6						
1497	Bealkelly Woods	Clare	0	0	0	3	0	0	3	0	25.0	69.7						
1498	Drummin Wood	Galway	0	0	0	2	0	0	2	0	16.7	81.8						
1499	Caher	Clare	0	1	0	1	0	0	2	0	16.7	48.5						
1500	Dromore Nature Reserve	Clare	0	0	0	1	1	0	2	0	16.7	84.8						
1501	Moyree Wood	Clare	0	0	0	0	0	0	0	0	0.0	63.6						
1502	Killeen Wood	Clare	0	2	0	0	0	0	2	0	16.7	57.6						
1503	Edenvale Wood	Clare	1	1	0	0	1	0	3	0	25.0	60.6						
1504	Drummina	Clare	0	0	0	1	0	0	1	0	8.3	60.6						
1505	Tullyodea	Clare	0	2	0	1	0	0	3	0	25.0	60.6						
1507	Bealnalicka	Clare	1	0	0	0	0	0	1	0	8.3	72.7						
1508	Cloggagh Wood	Clare	0	0	0	0	0	0	0	0	0.0	75.8						
1509	Ardcarney	Clare	0	1	0	1	0	0	2	0	16.7	72.7						
1510	Ross	Clare	0	0	0	1	0	0	1	0	8.3	72.7						
1511	Ballymacloon East	Clare	0	0	0	2	0	0	2	0	16.7	60.6						
1512	Caher Rice	Clare	0	1	1	0	0	0	2	0	16.7	54.5						
1513	Cahircalla Wood	Clare	1	0	0	0	0	0	1	0	8.3	69.7						
1514	Ballyconry	Clare	0	0	0	0	0	0	0	0	0.0	36.4						
1515	Garrannon Woods	Clare	0	1	0	0	0	0	1	0	8.3	81.8						
1516	Craggaunowen	Clare	0	2	0	0	1	0	3	0	25.0	60.6						
1519	Feagarroge	Clare	2	1	0	0	0	0	3	0	25.0	36.4						
1520	Carrowdotia South	Clare	0	1	1	0	0	0	2	0	16.7	39.4						
1522	Kilmore (Clare)	Clare	0	0	0	0	0	0	0	0	0.0	48.5						
1527	Magherabaun	Clare	2	1	0	0	0	0	3	0	25.0	51.5						

Site No.	Woodland Name	County	Max. score	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0						
1534	Muckinish	Clare	0	1	0	0	0	0	0	1	0	8.3	39.4					
1535	Gragan West	Clare	1	1	1	0	0	0	3	0	25.0	51.5						
1537	Slieve Carran	Clare	0	2	0	0	0	0	2	0	16.7	39.4						
1538	Ballyeighter	Clare	0	0	0	0	0	0	0	0	0.0	60.6						
1539	Boulleevin West	Clare	0	0	0	0	0	0	0	0	0.0	39.4						
1540	Bouleevin East	Clare	0	0	0	1	0	0	1	0	8.3	36.4						
1541	Clab	Clare	0	0	0	0	0	0	0	0	0.0	39.4						
1542	Knockanira	Clare	0	0	0	1	0	0	1	0	8.3	54.5						
1543	Glenmore Wood	Waterford	2	0	0	1	0	0	3	0	25.0	75.8						
1545	Barranamanoge Wood	Waterford	1	1	0	2	1	0	5	0	41.7	57.6						
1547	Ballyogan Beg	Clare	1	0	0	0	0	0	1	0	8.3	39.4						
1549	Cahiracon South	Clare	2	1	0	0	0	0	3	0	25.0	51.5						
1552	Cahermurphy	Clare	0	0	0	0	0	0	0	0	0.0	81.8						
1554	Knocknageeha	Clare	0	0	1	0	0	0	1	0	8.3	75.8						
1555	Glenomra Wood	Clare	0	0	0	0	0	0	0	0	0.0	81.8						
1559	Cregg	Clare	0	0	0	0	0	0	0	0	0.0	57.6						
1560	Dooros	Clare	0	1	0	0	0	0	1	0	8.3	57.6						
1561	Knockaphort	Clare	2	1	1	0	0	0	4	0	33.3	69.7						
1562	Drummaan South	Clare	1	1	0	1	1	0	4	0	33.3	69.7						
1563	Aughinish Wood	Clare	0	1	0	0	0	0	1	0	8.3	39.4						
1564	Cappaghbaun Park	Clare	1	0	0	0	0	0	1	0	8.3	81.8						
1567	Maryfort	Clare	2	1	1	0	0	0	4	0	33.3	75.8						
1568	Leaghort	Clare	0	2	0	0	0	0	2	0	16.7	51.5						
1569	Caherkinallia Wood	Clare	0	0	0	0	0	0	0	0	0.0	51.5						
1571	Poulivaun Wood	Clare	0	0	1	0	0	0	1	0	8.3	51.5						
1573	Ballymoloney Woods	Clare	0	0	0	0	0	0	0	0	0.0	39.4						
1574	Ballygarreen	Clare	1	0	0	2	0	0	3	0	25.0	72.7						
1575	Carrownakilly	Clare	0	0	0	0	0	0	0	0	0.0	54.5						
1577	Doonass Demesne	Clare	1	1	1	1	0	0	4	0	33.3	45.5						
1578	Ballymacdonnell	Clare	0	2	0	0	0	0	2	0	16.7	48.5						
1579	Cullaun Woods	Clare	0	0	0	0	0	0	0	0	0.0	63.6						
1580	Ballykelly Woods	Clare	0	0	0	0	0	0	0	0	0.0	66.7						
1585	Cragbrien	Clare	0	0	0	2	0	0	2	0	16.7	54.5						
1587	Derrymore Wood	Clare	0	2	0	1	0	0	3	0	25.0	69.7						
1588	Derrygoul Wood	Clare	0	0	0	0	0	0	0	0	0.0	63.6						
1591	Commons South	Clare	0	0	0	0	0	0	0	0	0.0	48.5						
1594	Garryland Wood	Galway	2	0	0	1	0	0	3	0	25.0	93.9						
1595	Ballynastaig Wood	Galway	0	0	0	0	0	0	0	0	0.0	69.7						
1596	Normangrove	Galway	0	0	0	2	0	0	2	0	16.7	66.7						
1597	Gortacarnaun	Galway	2	3	0	0	0	0	5	0	41.7	87.9						
1599	Gortnahoon	Galway	0	0	0	0	0	0	0	0	0.0	63.6						
1600	Shannawoneen Wood	Galway	0	0	0	1	0	0	1	0	8.3	87.9						
1601	Derryclare	Galway	0	3	0	0	0	0	3	0	25.0	87.9						
1602	Ballynahinch	Galway	2	0	1	0	0	0	3	0	25.0	66.7						
1603	Killymonaun	Galway	0	0	0	0	0	0	0	0	0.0	60.6						
1605	Furbogh Wood	Galway	2	1	0	1	0	0	4	0	33.3	69.7						
1606	Ross Demense	Galway	0	1	1	0	0	0	2	0	16.7	42.4						
1608	Derrycrag Wood	Galway	1	0	0	0	1	0	2	0	16.7	69.7						
1609	Rosturra Wood	Galway	0	0	2	1	0	0	3	0	25.0	48.5						
1610	Pollnacknockaun Wood	Galway	1	0	1	0	0	0	2	0	16.7	81.8						
1612	Killaghmore	Galway	2	0	0	0	0	0	2	0	16.7	36.4						
1614	Rinmaher Wood	Galway	0	0	0	0	0	0	0	0	0.0	66.7						
1616	Garryduff	Galway	0	0	0	0	0	0	0	0	0.0	75.8						
1617	Brimnoge Island	Galway	0	1	0	0	0	0	1	0	8.3	36.4						
1618	Clonfert (Seymour) North	Galway	0	1	1	2	0	0	4	0	33.3	57.6						
1619	Derryunlam	Galway	0	3	2	1	0	0	6	0	50.0	63.6						
1621	Limepark North	Galway	0	0	0	1	0	0	1	0	8.3	63.6						
1622	Horse Shoe Wood	Galway	1	1	1	0	0	0	3	0	25.0	72.7						
1624	Annaghwood	Galway	2	1	0	0	0	0	3	0	25.0	81.8						
1625	Drumsnauv	Galway	0	2	0	0	0	0	2	0	16.7	54.5						
1626	Lismore Woods	Waterford	2	0	0	1	1	0	4	0	33.3	87.9						
1629	Clydagh	Galway	2	1	0	0	0	0	3	0	25.0	75.8						
1630	Kilbeg Lower	Galway	0	1	1	0	0	0	2	0	16.7	78.8						
1635	Ellis Wood	Galway	2	2	0	0	0	0	4	0	33.3	36.4						
1636	Garbally Demesne	Galway	2	0	1	1	0	0	4	0	33.3	75.8						
1642	Barna	Galway	0	1	0	1	0	0	2	0	16.7	39.4						
1643	Dernasliggaun Wood	Galway	2	2	0	0	0	0	4	0	33.3	57.6						
1646	Skehanagh	Galway	0	0	0	0	0	0	0	0	0.0	54.5						

Site No.	Woodland Name	County	Invasive species		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Missing values	% Threat Score	% Conservation Score
			Max. score		Max. score		Max. score		Max. score		Max. score				
			2	3	2	3	1	1	1	1	12			100.0	100.0
1648	Barroughter	Galway	0	0	0	1	0	0	1	0	8.3		33.3		
1649	Barranny	Galway	0	1	0	0	0	0	1	0	8.3		30.3		
1650	Aghrane	Galway	2	0	0	1	0	0	3	0	25.0		57.6		
1653	Ballyglooneen	Galway	1	2	0	0	0	0	3	0	25.0		33.3		
1655	Moy Beg	Clare	0	0	0	0	0	0	0	0	0.0		45.5		
1656	Sylaun	Galway	1	1	0	1	0	0	3	0	25.0		39.4		
1657	Cregballymore	Galway	1	0	1	2	0	0	4	0	33.3		72.7		
1658	Toomard	Galway	0	0	0	2	0	0	2	0	16.7		48.5		
1659	Marnells Grove	Galway	2	0	0	1	0	0	3	0	25.0		45.5		
1660	Abbert Demesne	Galway	0	2	0	0	0	0	2	0	16.7		57.6		
1661	Gowla	Galway	0	0	0	0	0	0	0	0	0.0		48.5		
1664	Monivea Demesne	Galway	0	0	0	2	0	0	2	0	16.7		39.4		
1665	Clooncah	Galway	0	0	0	0	0	0	0	0	0.0		75.8		
1666	Raford	Galway	1	0	0	1	0	0	2	0	16.7		63.6		
1668	Bog Wood	Galway	2	0	0	0	0	0	2	0	16.7		45.5		
1669	Cuscarrick	Galway	2	1	1	1	0	0	5	0	41.7		54.5		
1670	Stradbally Woods	Waterford	2	1	1	2	0	0	6	0	50.0		78.8		
1671	Lavally	Galway	0	2	0	1	0	0	3	0	25.0		66.7		
1672	Mountbellew Demesne	Galway	0	1	1	0	0	0	2	0	16.7		39.4		
1673	Glennibbeen Wood	Waterford	1	0	0	1	0	0	2	0	16.7		69.7		
1674	Ardbear	Galway	1	0	0	0	0	0	1	0	8.3		75.8		
1677	Conagher	Galway	0	0	0	0	0	0	0	0	0.0		54.5		
1678	Ballyvoe	Clare	0	0	0	0	0	0	0	0	0.0		42.4		
1681	Convoy Demesne	Donegal	0	1	0	1	0	0	2	0	16.7		51.5		
1682	Glinsk	Donegal	0	0	0	0	0	0	0	0	0.0		69.7		
1683	Keadew Upper	Donegal	0	3	0	0	0	0	3	0	25.0		45.5		
1684	Lahardaun West	Galway	0	3	0	0	0	0	3	0	25.0		69.7		
1686	Croily Bridge Woods	Donegal	1	1	0	1	0	0	3	0	25.0		66.7		
1690	Roxborough Glebe	Donegal	1	0	0	0	0	0	1	0	8.3		60.6		
1691	Barkillew	Donegal	0	0	0	0	0	0	0	0	0.0		63.6		
1692	Bracky	Donegal	0	0	0	1	0	0	1	0	8.3		60.6		
1694	Derrynamansher	Donegal	0	0	0	0	0	0	0	0	0.0		60.6		
1695	Carrow Cashel	Donegal	2	0	0	0	0	0	2	0	16.7		54.5		
1697	Norrira	Donegal	2	1	0	1	0	0	4	0	33.3		33.3		
1699	Carrowmore	Donegal	0	2	0	1	0	0	3	0	25.0		51.5		
1702	Cranny Upper	Donegal	0	0	0	0	0	0	0	0	0.0		63.6		
1705	Feddyglass Northeast	Donegal	0	1	0	0	0	0	1	0	8.3		63.6		
1706	Knockbrack	Donegal	1	0	0	1	0	0	2	0	16.7		36.4		
1707	Doon Island Wood	Clare	0	0	0	0	0	0	0	0	0.0		48.5		
1708	Violethill	Clare	1	3	0	1	0	0	5	0	41.7		60.6		
1709	Ballynacourty Wood	Limerick	2	0	0	1	0	0	3	0	25.0		48.5		
1710	Ballintlea Wood	Limerick	2	0	1	0	0	0	3	0	25.0		60.6		
1711	Ballyseedy Wood	Kerry	2	0	0	0	0	0	2	0	16.7		84.8		
1712	Glanlough Woods	Kerry	2	0	0	2	0	0	4	0	33.3		51.5		
1715	Drombane	Kerry	0	0	0	1	0	0	1	0	8.3		81.8		
1717	Lackdotia	Cork	0	1	0	0	0	0	1	0	8.3		45.5		
1719	Farrandalouge	Kerry	0	1	1	0	0	0	2	0	16.7		60.6		
1720	Burnham Woodland	Kerry	1	1	1	1	1	0	5	0	41.7		48.5		
1722	Liscarny	Kerry	0	0	0	0	0	0	0	0	0.0		45.5		
1724	Derrymore East	Kerry	0	3	0	2	0	0	5	0	41.7		42.4		
1725	Ballyheigue	Kerry	2	1	0	0	1	0	4	0	33.3		27.3		
1727	Reacaslugh Wood	Kerry	1	2	0	1	0	0	4	0	33.3		45.5		
1729	Cloghane	Kerry	1	0	0	0	0	0	1	0	8.3		42.4		
1730	Killaclohane	Kerry	2	1	2	0	0	0	5	0	41.7		54.5		
1731	Tulligealane	Kerry	0	2	0	1	0	0	3	0	25.0		48.5		
1733	Derreeny	Kerry	0	2	0	1	0	0	3	0	25.0		48.5		
1734	Drom East	Kerry	1	0	0	0	0	0	1	0	8.3		69.7		
1735	Carrig East	Kerry	1	0	0	1	0	0	2	0	16.7		81.8		
1736	Oolagh East	Kerry	2	2	0	0	0	0	4	0	33.3		66.7		
1737	Graigues	Kerry	0	2	0	1	0	0	3	0	25.0		69.7		
1739	Kilgortaree Wood	Kerry	0	3	0	1	0	0	4	0	33.3		60.6		
1742	Drombeg	Kerry	1	0	1	0	0	0	2	0	16.7		42.4		
1743	Tarbert	Kerry	1	1	1	0	0	0	3	0	25.0		42.4		
1745	Banemore Wood	Kerry	1	0	0	1	0	0	2	0	16.7		66.7		
1746	Braumaddra	Kerry	1	0	0	0	0	0	1	0	8.3		63.6		
1747	Dromin Upper	Kerry	1	1	0	0	0	0	2	0	16.7		54.5		
1748	Glanageenty	Kerry	1	0	0	2	0	0	3	0	25.0		75.8		
1749	Dooneen Wood	Kerry	0	1	0	0	0	0	1	0	8.3		63.6		

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values		% Threat Score	% Conservation Score
				2	3	2	3	1	1	12	100.0	100.0								
1751	Beheenagh	Kerry		0	0	0	0	0	0	0	0	0	0	0	0	0.0			45.5	
1754	Gortnaskeagh	Kerry		0	0	0	0	0	0	0	0	0	0	0	0	0.0			51.5	
1755	Whitefield	Kerry		0	0	1	1	0	0	2	0	16.7							54.5	
1756	Ballynamuddagh	Cork/Waterford		2	1	0	0	0	0	3	0	25.0							66.7	
1758	Ballynagaul	Cork		2	0	1	1	0	0	4	0	33.3							60.6	
1759	Argadh Wood	Kerry		0	0	0	1	0	0	1	0	8.3							75.8	
1760	Brennan's Glen	Kerry		0	0	0	1	0	0	1	0	8.3							63.6	
1763	Pontoon Woods	Mayo		2	0	0	2	0	0	4	0	33.3							81.8	
1768	Barnarinia	Mayo		0	0	0	1	0	0	1	0	8.3							71.9	
1769	Raheens	Mayo		0	0	0	1	0	0	1	0	8.3							75.8	
1770	Kilbride	Mayo		0	0	0	0	0	0	0	0	0.0							75.0	
1772	Portroyal	Mayo		0	0	0	0	0	0	0	0	0.0							60.6	
1774	Creevagh north	Mayo		0	1	0	0	0	0	1	0	8.3							54.5	
1775	Coolcronaun	Mayo		2	0	0	0	0	0	2	0	16.7							57.6	
1777	Brackloon Woods	Mayo		1	0	0	0	0	0	1	0	8.3							84.8	
1778	Oldhead Wood	Mayo		1	1	1	0	0	0	3	0	25.0							75.8	
1779	Ardogommon Wood	Mayo		0	0	2	0	0	0	2	0	16.7							54.5	
1785	Treanlaur	Mayo		2	1	0	0	0	0	3	0	25.0							66.7	
1786	Rosturk	Mayo		2	0	0	1	0	0	3	0	25.0							45.5	
1789	Ballinknockane	Kerry		0	1	1	1	0	0	3	0	25.0							45.5	
1790	Carrigeen Wood	Kerry		0	1	0	0	0	0	1	0	8.3							54.5	
1791	Farrantooreen	Kerry		2	1	0	3	0	0	6	0	50.0							51.5	
1792	Glanbalyma	Kerry		1	1	0	1	0	0	3	0	25.0							72.7	
1793	Old Pike Wood	Kerry		2	0	0	1	0	0	3	0	25.0							48.5	
1794	Mucksna Wood	Kerry		1	0	1	2	0	0	4	0	33.3							66.7	
1795	Kinlooeey	Mayo		0	0	0	0	0	0	0	0	0.0							63.6	
1796	Derrymore	Mayo		0	0	0	0	0	0	0	0	0.0							72.7	
1797	Carrowrevagh	Mayo		0	2	0	0	0	0	2	0	16.7							51.5	
1798	Lankill	Mayo		0	3	0	1	0	0	4	0	33.3							69.7	
1799	Aillebaun	Mayo		0	2	0	0	0	0	2	0	16.7							63.6	
1800	Prospect	Mayo		2	0	0	2	0	0	4	0	33.3							81.8	
1802	Cahermush	Mayo		1	1	0	1	0	0	3	0	25.0							48.5	
1803	Palmerstown	Mayo		1	0	0	0	0	0	1	0	8.3							60.6	
1804	Tawnyinlough	Mayo		2	0	0	0	0	0	2	0	16.7							60.6	
1805	Culliagh Wood	Mayo		2	0	0	0	0	0	2	0	16.7							63.6	
1806	Clooneen (Mayo)	Mayo		0	1	0	1	0	0	2	0	16.7							51.5	
1807	Coolaght	Mayo		0	1	0	1	0	0	2	0	16.7							69.7	
1808	Knockbaun	Mayo		1	0	0	0	0	0	1	0	8.3							75.8	
1810	Creggarve	Mayo		0	0	0	0	0	0	0	0	0.0							60.6	
1811	Liskilleen	Mayo		0	0	0	1	0	0	1	0	8.3							63.6	
1812	Ballycong	Mayo		0	0	0	0	0	0	0	0	0.0							60.6	
1814	Barcull	Mayo		0	0	0	1	0	0	1	0	8.3							51.5	
1816	Ballyhamlet	Waterford		1	2	0	2	0	0	5	0	41.7							78.8	
1818	White Well Wood	Waterford		2	0	0	2	0	0	4	0	33.3							69.7	
1819	The Grove	Waterford		2	1	0	0	0	0	3	0	25.0							72.7	
1820	Killeeshal	Waterford		2	0	0	0	0	0	2	0	16.7							63.6	
1821	Knocknaree	Waterford		2	2	0	1	0	0	5	0	41.7							57.6	
1822	Knockaunbrandaun	Waterford		0	0	0	0	0	0	0	0	0.0							48.5	
1823	Mountbolton	Waterford		0	1	1	1	0	0	3	0	25.0							42.4	
1824	Dromana	Waterford		2	1	0	1	0	0	4	0	33.3							42.4	
1826	Ballyeelinan Wood	Waterford		0	0	0	1	0	0	1	0	8.3							45.5	
1827	Bohaddon South	Waterford		0	0	0	0	0	0	0	0	0.0							66.7	
1830	Knockafrehane	Waterford		1	0	0	0	0	0	1	0	8.3							63.6	
1831	Ballymacarbry	Waterford		1	2	0	0	0	1	4	0	33.3							57.6	
1832	Tower Wood	Waterford		1	0	0	0	0	0	1	0	8.3							42.4	
1833	Kilmacomma	Waterford		2	2	0	0	0	0	4	0	33.3							48.5	
1834	Lyranearla	Waterford		0	0	1	0	0	0	1	0	8.3							48.5	
1835	Clonea	Waterford		0	0	0	1	0	0	1	0	8.3							42.4	
1837	Ballindysert	Waterford		0	0	0	0	0	0	0	0	0.0							60.6	
1838	Amberhill	Waterford		0	1	0	0	0	0	1	0	8.3							63.6	
1839	Ballycanvan Big	Waterford		2	1	1	0	0	0	4	0	33.3							60.6	
1842	Cladagh	Waterford		0	0	0	1	0	0	1	0	8.3							72.7	
1844	Rincrow Wood	Waterford		1	0	0	1	0	0	2	0	16.7							66.7	
1846	Ballynatray Demesne West	Waterford		1	0	0	0	0	0	1	0	8.3							72.7	
1849	Kilcannon	Waterford		1	1	0	0	0	1	3	0	25.0							51.5	
1851	Blenheim	Waterford		1	1	1	1	0	0	4	0	33.3							51.5	
1852	Toor Wood	Waterford		1	0	0	1	0	0	2	0	16.7							42.4	
1853	Hazel Wood, Waterford	Waterford		0	0	0	0	0	0	0	0	0.0							66.7	

Site No.	Woodland Name	County	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
			2	3	2	3	2	3	1	1	1	1	12	12			100.0	100.0
1855	Carrigmoorna Wood	Waterford	0	2	0	0	0	0	0	0	0	0	2	0	16.7		45.5	
1856	Cappanahanaagh	Limerick	2	1	0	0	0	0	0	0	0	0	3	0	25.0		63.6	
1857	Newgarden North	Limerick	1	1	2	0	0	0	0	0	0	0	4	0	33.3		69.7	
1858	Aughnaglanny Valley	Tipperary	1	0	0	1	0	0	0	0	0	0	2	0	16.7		84.8	
1859	Grove Wood	Tipperary	1	0	0	1	0	0	0	0	0	0	2	0	16.7		63.6	
1860	Cappamurragh	Tipperary	2	0	0	0	0	0	0	0	0	0	2	0	16.7		54.5	
1861	Knockanavar Wood	Tipperary	1	2	0	1	0	0	0	0	0	0	4	0	33.3		81.8	
1864	Glengarve Wood	Tipperary	2	0	0	0	0	0	0	0	0	0	2	0	16.7		30.3	
1865	Hollowpark	Mayo	0	0	0	0	0	0	0	0	0	0	0	0	0.0		63.6	
1866	Gortnafolla	Mayo	0	0	1	1	0	0	0	0	0	0	2	0	16.7		66.7	
1870	Scregg	Mayo	0	1	0	0	0	0	0	0	0	0	1	0	8.3		30.3	
1871	Newtown Wood (Mayo)	Mayo	2	1	2	0	0	0	0	0	0	0	5	0	41.7		48.5	
1872	Lissard More	Mayo	0	0	0	0	0	0	0	0	0	0	0	0	0.0		48.5	
1873	Cloonta	Mayo	1	1	0	1	0	0	0	0	0	0	3	0	25.0		51.5	
1876	Moyaliff	Tipperary	2	0	1	0	0	0	0	0	0	0	3	0	25.0		72.7	
1878	Drum Wood	Tipperary	0	1	0	1	0	0	0	0	0	0	2	0	16.7		60.6	
1881	Faha	Kerry	1	0	0	1	0	0	0	0	0	0	2	0	16.7		39.4	
1884	Ballyhorgan	Kerry	0	1	0	1	0	0	0	0	0	0	2	0	16.7		36.4	
1891	Turaheen	Tipperary	1	0	0	2	0	0	0	0	0	0	3	0	25.0		63.6	
1892	Longorchard	Tipperary	0	1	0	0	0	0	0	0	0	0	1	0	8.3		57.6	
1893	Kilduff	Tipperary	0	2	0	0	0	0	0	0	0	0	2	0	16.7		63.6	
1894	Ballycresk Wood	Tipperary	0	1	0	1	0	0	0	0	0	0	2	0	16.7		57.6	
1895	Killough Hill	Tipperary	0	0	0	1	0	0	0	0	0	0	1	0	8.3		51.5	
1896	Friar's Lough Wood	Tipperary	0	1	0	0	0	0	0	0	0	0	1	0	8.3		54.5	
1897	Lehinch	Tipperary	0	2	0	1	0	0	0	0	0	0	3	0	25.0		63.6	
1898	Inchinsquillib Wood	Tipperary	0	1	0	1	0	0	0	0	0	0	2	0	16.7		57.6	
1901	Powers Wood	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		51.5	
1902	Scaragh Woods East	Tipperary	2	0	0	0	0	0	0	0	0	0	2	0	16.7		48.5	
1903	Killavalla Wood	Tipperary	2	0	0	0	0	0	0	0	0	0	2	0	16.7		54.5	
1904	Longford Wood	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		51.5	
1905	Kyle	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		51.5	
1906	Kyatlea	Tipperary	0	2	0	0	0	0	0	0	0	0	2	0	16.7		45.5	
1907	Deer Park	Tipperary	0	0	0	1	0	0	0	0	0	0	1	0	8.3		30.3	
1908	Drom	Kerry	0	0	0	0	0	0	0	0	0	0	0	0	0.0		60.6	
1909	Keam	Kerry	1	0	0	0	0	0	0	0	0	0	1	0	8.3		63.6	
1910	Rusheen	Kerry	0	1	0	0	0	0	0	0	0	0	1	0	8.3		30.3	
1914	Formoyle West	Clare	0	0	0	0	0	0	0	0	0	0	0	0	0.0		42.4	
1915	Ballymalis	Kerry	0	2	0	0	0	0	0	0	0	0	2	0	16.7		48.5	
1916	Maulcallee	Kerry	1	0	0	1	0	0	0	0	0	0	2	0	16.7		75.8	
1918	Beheens Wood	Kerry	0	1	0	0	0	0	0	0	0	0	1	0	8.3		51.5	
1919	Foaty South	Cork	1	1	0	1	0	0	0	0	0	0	3	0	25.0		57.6	
1920	Foaty North	Cork	2	0	1	0	1	0	0	0	0	0	4	0	33.3		45.5	
1922	Ballydavid	Waterford	1	0	0	1	0	0	0	0	0	0	2	0	16.7		60.6	
1923	Corville	Tipperary	2	1	2	1	0	0	0	0	0	0	6	0	50.0		45.5	
1924	Patrickswell	Tipperary	2	1	1	0	0	0	0	0	0	0	4	0	33.3		66.7	
1925	Taylor's Wood	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		45.5	
1926	Ballyphilip	Tipperary	0	2	0	0	0	0	0	1	3	0	3	0	25.0		66.7	
1927	Kilcooly Abbey	Tipperary	0	0	0	2	0	0	0	0	0	0	2	0	16.7		48.5	
1928	Straheeny Grove	Galway	2	1	0	0	0	0	0	0	0	0	3	0	25.0		48.5	
1929	Cahiracon North	Clare	0	1	0	0	0	0	0	0	0	0	1	0	8.3		54.5	
1930	Ballynahinch Headland	Galway	1	3	0	0	0	0	0	0	0	0	4	0	33.3		63.6	
1931	Doon Lough East	Clare	0	2	0	2	0	0	0	0	0	0	4	0	33.3		42.4	
1932	Marl Bog	Tipperary	2	0	1	0	0	0	0	0	0	0	3	0	25.0		66.7	
1933	Carrowkilleen	Mayo	0	1	0	1	0	0	0	0	0	0	2	0	16.7		36.4	
1934	Clogher (Mayo)	Mayo	0	0	1	0	0	0	0	0	0	0	1	0	8.3		51.5	
1935	Lugboy Demesne	Mayo	0	3	1	1	0	0	0	0	0	0	5	0	41.7		45.5	
1936	Largan More	Mayo	0	1	0	0	0	0	0	0	0	0	1	0	8.3		45.5	
1950	Bounla Island	Tipperary	1	1	1	0	0	0	0	0	0	0	3	0	25.0		57.6	
1951	Ballinahinch	Tipperary	0	2	0	0	0	0	0	0	0	0	2	0	16.7		60.6	
1952	Johnstown	Tipperary	0	0	1	1	0	0	0	0	0	0	2	0	16.7		33.3	
1953	Castelough	Tipperary	1	1	1	0	0	0	0	0	0	0	3	0	25.0		78.8	
1954	Garrynatineel	Tipperary	0	1	0	0	0	0	0	0	0	0	1	0	8.3		63.6	
1955	Moanroan	Tipperary	0	0	0	1	0	0	0	0	0	0	1	0	8.3		57.6	
1958	Kilvilcorris	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		54.5	
1959	Kilross	Tipperary	2	0	0	0	0	0	0	0	0	0	2	0	16.7		60.6	
1960	Kilcarron	Tipperary	0	0	0	0	0	0	0	0	0	0	0	0	0.0		45.5	
1962	Glencoshabinnia	Tipperary	1	0	0	0	0	0	0	0	0	0	1	0	8.3		48.5	
1963	Cornalack	Tipperary	1	1	0	1	0	0	0	0	0	0	3	0	25.0		63.6	

Site No.	Woodland Name	County	Max. score	Invasive species		Grazing		Non-native regeneration		Damaging activities		Exotic canopy		Standing dead/damaged trees		Score	Missing values	% Threat Score	% Conservation Score
				2	3	2	3	1	3	1	1	12							
				2	3	2	3	1	1	12									
1964	Ballyoughter	Tipperary	0	0	0	1	0	0	1	0	8.3	42.4							
1967	Templemore Demesne	Tipperary	2	1	1	0	0	0	4	0	33.3	60.6							
1968	Shanacloon (Fox Covert)	Tipperary	1	0	0	0	0	0	1	0	8.3	66.7							
1969	Garryglass	Tipperary	0	0	0	0	0	0	0	0	0.0	48.5							
1970	Rathurles	Tipperary	1	1	0	0	0	0	2	0	16.7	57.6							
1972	Woodpark	Tipperary	0	2	0	0	0	0	2	0	16.7	33.3							
1973	Borris Wood	Tipperary	0	2	0	1	0	0	3	0	25.0	33.3							
1979	Mullagh	Limerick	0	2	0	0	0	0	2	0	16.7	48.5							
1984	Nantinan	Limerick	2	2	0	1	0	0	5	0	41.7	45.5							
1985	Lough Gur	Limerick	0	3	0	0	1	0	4	0	33.3	33.3							
1986	Curraghchase Forest Park	Limerick	1	1	1	0	1	0	4	0	33.3	93.9							
1989	Glin Demesne	Limerick	1	1	0	0	0	0	2	0	16.7	48.5							
1993	Glenma	Limerick	0	1	0	1	0	0	2	0	16.7	48.5							
1995	Gortnaskehy	Limerick	1	1	0	0	0	0	2	0	16.7	66.7							
1996	Craggs	Limerick	0	0	0	1	0	0	1	0	8.3	63.6							
1997	Aghinish	Mayo	0	0	0	0	0	0	0	0	0.0	48.5							
1998	Curraghprevin	Cork	2	0	0	0	0	0	2	0	16.7	60.6							
1999	Burnham East	Kerry	1	0	1	2	0	0	4	0	33.3	51.5							
2000	Ballynahown	Clare	0	0	0	0	0	0	0	0	0.0	45.5							
2001	Templeglentan West	Limerick	0	1	0	0	0	0	1	0	8.3	63.6							
2002	Dromore North	Cork	0	0	0	0	0	0	0	0	0.0	57.6							
2003	Cappagh	Cork	0	0	0	0	0	0	0	0	0.0	48.5							
2012	Scartaglin	Kerry	1	0	0	0	0	0	1	0	8.3	48.5							
2013	Derrylea	Kerry	0	2	0	0	0	0	2	0	16.7	54.5							
2014	Ballahacommane	Kerry	1	0	0	1	0	0	2	0	16.7	42.4							
2018	Belle Lake	Waterford	0	1	2	0	0	0	3	0	25.0	48.5							
2019	Cloonmoylan	Galway	x	x	x	x	x	x	x	6	N/A	N/A							
2020	Sheheree Bog	Kerry	x	x	x	x	x	x	x	6	N/A	40.0							